Interim Rule: Use of 840 Animal Identification Numbers for U.S.-born Animals Only

Analysis in Support of Certification that the Rule will not have a Significant Economic Impact on a Substantial Number of Small Entities

Docket No. APHIS-2008-0077

July 2008

Policy Analysis & Development
Policy & Program Development
Animal & Plant Health Inspection Service
U.S. Department of Agriculture

APHIS is amending the regulations to limit the use of the animal identification number (AIN) with the 840 prefix to animals born in the United States. In addition, we are extending the restrictions on the removal of official identification devices to include devices applied to imported animals in their countries of origin. The regulations also are being amended to prohibit the re-tagging of imported animals with an official identification device beginning with the 840 prefix. The Regulatory Flexibility Act of 1980 (Public Law 96-354) requires agencies to evaluate the potential effects of proposed and final rules on small businesses, small organizations, and small governmental jurisdictions. Section 605 of the RFA allows an agency to certify a rule if it will not have a significant economic impact on a substantial number of small entities. Following is the factual basis for such certification of this rule.

Reason for the Action and Objectives of the Interim Rule

Currently, the definition for "animal identification number" contained in 9 CFR 71.1, 77.2, 78.1, 79.1, and 80.1, specifies that an AIN contain 15 digits, with the first 3 being either the country code (840 for the United States), the alpha characters USA, or the numeric code assigned to the manufacturer of the identification device by the International Committee on Animal Recording. In these same regulations, the definition for "official eartag" allows for the use of certain numbering systems on official eartags besides the AIN, namely, the National Uniform Eartagging System, a premises-based number system, or any other numbering system approved by the Administrator for the identification of animals in commerce.

Limiting the use of the 840 prefixed AIN to animals born in the United States will help APHIS determine the origin of an animal in a more timely fashion in the event of a disease outbreak. Animals born outside the United States will retain identification tags

from their countries of origin, and if such tags are lost following importation, they will have to be replaced with tags that do not use the 840 prefixed AIN. Requiring that foreign-born animals retain identification tags applied in their countries of origin will aid in the traceback of those animals.

In addition to enhancing our traceback capabilities, this rulemaking also provides a convenient way for U.S. producers and retailers to comply with the COOL program. Under provisions contained in the Farm Bill of 2002, covered commodities, including certain beef, lamb, chicken, goat, and pork cuts and products, will be subject to COOL requirements beginning September 30, 2008. In order for retailers to accurately label these products, producers will need to provide information on the origins of their livestock. Animal identification that meets NAIS standards can play a valuable role in the COOL program. Such identification may include both the AIN and the GIN, the latter employing a format that includes a seven-digit PIN. This rule will allow producers to use the 840 AIN for puposes of the COOL program.

We note that the NAIS is a voluntary program. There are no regulations that require participation in, or compliance with, the NAIS program.

Description and Estimate of Small Entities Affected by the Proposed Rule

Those entities most likely to be affected by the rule are domestic producers of animal eartags and livestock producers. The Small Business Administration (SBA) has established guidelines for determining which establishments are considered small.

The SBA small-entity size standard for North American Industry Classification System (NAICS) code 326199, which comprises plastic product manufacturers not

otherwise identified, is 500 or fewer employees.[1] According to the 2002 Economic Census, there were 7,892 establishments in this category engaged in the manufacturing of plastic products, with over 492,000 paid employees.[2] Of these 7,892 establishments, we do not currently have enough information to determine the number of operations engaged in the manufacture of plastic eartags, or the number having 500 or fewer employees. Limiting use of AINs beginning with the 840 prefix to U.S.-born animals should not affect the costs of tag producers. It should, however, enhance the marketability of these tags as they will become a means of meeting the requirements of the COOL regulations.

In 2006, there were a total of 971,400 cattle operations, 65,540 hog and pig operations, and 69,090 sheep and lamb operations in the United States.[3] The overwhelming majority of these operations are considered small entities according to SBA standards.[4] The interim rule is not expected to have significant economic effects on these livestock establishments.

Limiting use of 840 AINs to U.S.-born animals is expected to benefit the livestock sector generally, and producers in particular, by enhancing APHIS' animal disease response capabilities. The interim rule will also provide a readily available, convenient, effective, and cost-effective means of complying with the COOL regulation and meeting requirements for State/Federal animal disease programs and interstate commerce. Use of the 840 prefixed AIN will not be required, no animals will be required

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[1] Table of Size Standards based on NAICS 2002. Washington, DC: U.S. Small Business Administration, effective October 1, 2007. Note: NAICS code 326199 comprises establishments primarily engaged in manufacturing plastics products (except film, sheet, bags, profile shapes, pipes, pipe fittings, laminates, foam products, bottles, plumbing fixtures, and resilient floor coverings).

[2] 2002 Economic Census-Manufacturing Series. Washington, DC: U.S. Census Bureau, December 2004.

[3] USDA-NASS, 2007 Agricultural Statistics, Tables 7-18, 7-26, and 7-53. Washington, DC: National Agricultural Statistics Service.

[4] The small entity definition for livestock producers (NAICS codes: 112111, 112120, 112210, 112410, and 112420) is one that has $750,000 or less in annual receipts, according to the SBA's Table of Size Standards.

to be retagged due to this rule, and other animal identification numbering systems currently permitted for use on official eartags, such as the National Uniform Eartagging System and premises-based number systems, will continue to be recognized as official.

Duplication, Overlap, or Conflict with Other Rules

APHIS has not identified any Federal rules that are duplicative, overlapping, or conflicting with this rule.

Alternatives

APHIS has determined that there are no significant alternatives to this interim rule that would reduce any negative impacts associated with this change and still accomplish the stated objectives.

Conclusion

In sum, we expect that the interim rule will benefit affected entities by enhancing the traceability of livestock in the event of a disease outbreak. It will also provide a convenient way for U.S. producers to comply with the COOL program. The use of AINs beginning with the 840 prefix for U.S.-born animals will not be required, no animals will be required to be retagged due to this rule, and other animal identification numbering systems currently recognized in the regulations for use on official eartags, such as the National Uniform Eartagging System and premises-based number systems, can continue to be used.

Based on the information presented, if promulgated, this rule will not have a significant impact on a substantial number of small entities. We invite comment from members of the public who believe that the rule may have a significant impact on domestic producers of animal eartags or livestock producers.

United States
Department of
Agriculture

Animal and Plant
Health Inspection
Service

Veterinary Services

Eastern Region

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Suite 200
Raleigh, NC 27606

(919) 855-7250
FAX (919) 855-7295

SUBJECT: Authorized Departmental Officer's Designated Representative (ADODR)
Continuation to the Notice of Award
Cooperative Agreement No.: 07-9626-0173CA
Program: TB
Cooperator: Michigan Department of Agriculture
Federal Award Amount: $350,000.00 Cooperator's Share: $.00
Period of Performance: January 1, 2007 – December 31, 2007
Accomplishment Reports Due: Quarterly

TO: Reed Macarty, AVIC
USDA APHIS VS
3001 Coolidge Road, Suite 325
East Lansing, MI 48823

You are hereby designated as the Authorized Departmental Officer's Designated Representative (ADODR) for Cooperative Agreement No.: 07-9626-0173CA in effect between the Michigan Department of Agriculture and the United States Department of Agriculture, Animal Plant Health Inspection Service (APHIS), Veterinary Services, during 2007.

This designation is an APHIS requirement in accordance with the APHIS Agreements Management Manual. You are responsible for the following types of functions:

1. Ensure that APHIS has authority to enter into the proposed agreement and that APHIS has selected the appropriate agreement instrument.

2. Justify non-competition of the award, or if competitive, prepare a funding opportunity announcement, develop criteria for evaluation applicants, and coordinate a panel of review of applications. Ensure potential awardees are not debarred or suspended by checking the Excluded Parties List System at www.epls.gov.

3. Negotiate terms and conditions of the agreement including the work plan and financial plan and Notice of Award.

4. Ensure all arrangements agreed to by APHIS and the cooperator are documented in writing and maintained as part of the office agreement file.

5. Ensure, when applicable, that the cooperator has provided written notification to the appropriate State Single Point of Contact (SPOC) early during the planning process of programs/projects to be conducted within the State. The cooperator may accomplish this through correspondence with the SPOC which synopsizes program/project goals, methods to be used, and any relevant facts. In the event the cooperator advises the ADODR that the Intergovernmental Review Process is no longer applicable to APHIS Catalog of Federal Domestic Assistance (CFDA) 10.025 in the State, the ADODR must

require written notification to that effect from the cooperator's authorized representative/approving official. Refer to APHIS website at http://www.aphis.usda.gov/mrpbs/fmd/agreements_service_center.html and look under the Tool Kit for EO 12372, APHIS Specific Information, to determine whether APHIS FDA Program No. 10.025 is covered (subject to SPOC review) in a given state. In those states where the APHIS program is subject to review and the SPOC chooses to waive the process for the year or life of the program or finishes the review prior to the 30 or 60 day waiting period, the cooperator must provide a copy of the letter issued by the SPOC to the cooperator in order for APHIS to proceed with the award.

6. Ensure that the cooperator has completed all sections of the SF-424, Application for Federal Assistance, and has submitted a work plan, detailed financial plan, and all required forms. Ensure that the costs as proposed on the SF-424 are reasonable, allocable, and allowable under the applicable OMB circular governing cost principles.

7. Ensure that the cooperator includes a fully executed current negotiated indirect cost rate agreement negotiate by its cognizant Federal agency, including signature page, with the application when claiming indirect costs. The ADODR should ensure that the correct rate is claimed and is correctly applied to the direct costs.

8. Ensure that the negotiated terms and conditions and relevant authorities (e.g. Plant Protection Act, Animal Health Act, NEPA, etc., as applicable) are placed in the Notice of Award ant that special award conditions are imposed when the cooperator is classified as a "high-risk" grantee.

9. Ensure that the use of program income is written in the Notice of Award, when applicable, and that program income is used in accordance with the Notice of Award.

10. Monitor the cooperator's performance in accordance with the cooperator's work plan, performance schedule, and budget. Visit work sites as appropriate. At the end of each funding period, provide a written summary evaluation to the Authorized Departmental Officer (ADO).

11. Monitor cooperator's compliance with all terms and conditions listed in the Notice of Award and compliance with all applicable laws, regulations, circulars, policies, and guidelines.

12. Review and approve/disapprove all Request for Advance or Reimbursement forms, SF-270, for completeness and accuracy, certify in writing, and forward to the Agreements Services Center for distribution.

13. Review and accept, if consistent with anticipated program expenditures and program accomplishments, all Financial Status Reports, SF-269, received from the cooperator. Ensure cooperator met the cost share as indicated on the SF-424. Document any changes to cost share in writing.

14. Ensure timely submission of and review accomplishment reports as agreed to in the Notice of Award to determine the level of program accomplishments and resolve any

discrepancies or deficiencies in program performance. Document all accomplishments or discrepancies and efforts to reconcile any differences. These reports and site monitoring are the basis for approval/denial of payment requests. Ensure copies of these reports are sent to Eastern Regional Office for the official file.

15. Follow-up and attempt to resolve discrepancies found on forms, including, but not limited to, the SF-269 and SF-270. Notify the ADO of any unresolved discrepancies.

16. Document all efforts to obtain untimely reports and notify the ADO when these requests for reports are ignored.

17. Ensure the State and Local Governments remit annual interest earned on cash advances, in excess of $100 to APHIS. Ensure that institutions of higher education, hospitals, and other non-profit recipients remit any interest earned in excess of $250 per year, to Health and Human Services. Tribes are exempt under the Indian Self-Determination Act (25 U.S.C. 450).

18. Provide technical assistance to the cooperator regarding program and administrative activities conducted within the scope and terms of agreements.

19. Review the cooperator's inventory records of Federally owned property. The ADODR will ensure that the cooperator properly submits an annual inventory of Federally- owned equipment. Verify inventories of cooperator-owned property purchased with Federal funds.

20. Initiate and complete the agreement close-out.

21. Notify the ADO when suspension or termination of an award is warranted.

Cooperators must obtain, through the ADODRs, written approval of the ADO by amendment to the agreement, as appropriate, to change any of the terms and conditions of the Notice of Award, Work Plan, or Financial Plan.

If you have any questions regarding this Award, 07-9626-0173CA, or the responsibilities delegated to you as the ADODR for this agreement, please contact Ms. Cara Castle, at (919) 855-7241.

Jack A. Shere
Director

Attachments

CONTINUATION
TO THE
NOTICE OF **COOPERATIVE AGREEMENT** AWARD
BETWEEN THE
MICHIGAN DEPARTMENT OF AGRICULTURE (COOPERATOR)
AND THE
UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
VETRINARY SERVICES (APHIS VS)

Under the provisions of Article 17 of the Notice of Cooperative Agreement Award 05-9626-0173CA, survey activities that will provide specific information to the Cooperator, APHIS, and other interested parties for the Bovine Tuberculosis (TB) Surveillance and Control program are hereby continued during 2007.

ARTICLE 1 - PURPOSE

The purpose of this **Agreement** is to provide Federal financial assistance to continue surveillance, control, and elimination efforts necessary to maintain Split State Status for bovine TB in Michigan. These activities will provide specific information to the Cooperator, APHIS VS, and other interested parties regarding Bovine TB.

ARTICLE 2 - AUTHORITIES

Under the Farm Security and Rural Investment Act of 2002, PL 107-171, Subtitle E, Animal Health Protection, Section 10401-10418, the Secretary of Agriculture, in order to protect the agriculture, environment, economy, and health and welfare of the people of the United States by preventing, detecting, controlling, and eradicating diseases and pests of animals, is authorized to cooperate with foreign countries, States, and other jurisdictions, or other persons, to prevent and eliminate burdens on interstate commerce and foreign commerce, and to regulate effectively interstate commerce and foreign commerce.

ARTICLE 3 – MUTUAL UNDERSTANDINGS AND RESPONSIBILITIES

The cooperating parties agree to/that:

a. The **Work Plan** and **Financial Plan** developed by the **Cooperator** and APHIS are incorporated into this **Agreement** by attachment. (See Attachment 1.)

b. The provisions of this **Agreement** will not replace functions that are being conducted by the **Cooperator** but will supplement those activities and increase program benefits to all parties.

c. The employee(s) responsible for this work will be under the general program direction of the **Cooperator and APHIS**. Supervision of personnel will be provided by their employing organization, and they will be subject to their employing organizations rules and regulations.

ARTICLE 4 – **COOPERATOR** RESPONSIBILITIES

The **Cooperator** agrees to/that:

a. Designate in writing to APHIS the **Cooperator's** authorized representative who shall be responsible for collaboratively administering the activities conducted under this **Agreement.**

b. Furnish personnel, as required, to accomplish the activities outlined in the **Work Plan and Financial Plan.**

c. Submit to APHIS' authorized representative **quarterly** accomplishment reports on program activities outlined in the **Work Plan and Financial Plan.** The reports will be used by APHIS to verify compliance with provisions of this **Agreement**. These reports are due **no later than 30 days** after the end of each quarter except the final report which is due **no later than 90 days** after the **Agreement** expires or terminates. Any requests for an extension of time to submit the report must be made in writing to APHIS' authorized representative before expiration of the initial 30 or 90-day period allowed for submitting the report. Extensions of time to submit reports are subject to the discretion of APHIS' authorized representative and, if allowed, shall be provided by the authorized representative in writing.

The due dates for the quarterly accomplishment reports are:

Period	Report Due
1 January – 31 March	30 April
1 April – 30 June	30 July
1 July – 30 September	30 October
1 October – 31 December	90 days After Agreement Expires

d. Submit to APHIS' authorized representative a properly certified **quarterly** Financial Status Report, SF-269, **no later than 30 days** after the end of each quarter and a final SF-269 **no later than 90 days** after the **Agreement** expires or terminates. Any requests for an extension of time to submit the SF-269 must be made in writing to APHIS' authorized representative before expiration of the initial 30 or 90-day period allowed for submitting the report. Extensions of time to submit the SF-269 are subject to the discretion of APHIS' authorized representative and, if allowed, shall be provided by the authorized representative in writing.

The due dates for the quarterly financial status reports are:

Period	Report Due
1 January – 31 March	30 April
1 April – 30 June	30 July
1 July – 30 September	30 October
1 October – 31 December	90 days After Agreement Expires

e. Treat any program income derived under this **Agreement** using the Deduction Alternative in accordance with the provisions of 7 CFR 3016.25(g)(1) or 7 CFR 3019.24(b)(3), as applicable, which provides for a decrease in the financial contributions of each cooperating party to this project.

f. Submit to APHIS a properly certified Request for Advance or Reimbursement, SF270, when requesting payment for expenditures. A payment request may be submitted quarterly or more frequently; however, advance of funds will be made by APHIS in increments as indicated under 11.j of the SF270 to cover monthly disbursement needs.

g. Obtain a Dun and Bradstreet (D&B) Data Universal Numbering System (DUNS) number by calling D&B at (800) 333-0505 (most expeditious) or visiting their website at http://www.dnb.com/us. This requirement does not apply to individuals applying for assistance, unless it supports a business or non-profit organization they operate. Upon obtaining the DUNS number, the **Cooperator** further agrees to register in the Central Contractor Registry (CCR) by visiting their website at http://www.ccr.gov (most expeditious) or calling 888-227-2423. This registration will provide a means to receive electronic funds transfers of all payments requested on the SF-270. **Cooperators** without accounts at financial institutions can request waivers due to hardship because of physical or geographical barrier.

h. APHIS may withhold payments called for in Article 5.b under the conditions outlined in 7 CFR 3016.21(g) or 7 CFR 3019.22(h).

i. Comply with 7 CFR 3017, Subpart C to ensure that any sub recipients that carry out the provisions of this **Agreement** are not debarred or suspended. Sub-recipients are required to disclose if they, or any of their principals, are presently excluded or disqualified.

j. Comply with and enforce the requirements for a drug-free workplace as mandated in 7 CFR 3021, "Government-wide Requirements for Drug-Free Workplace".

k. When connected to the USDA, APHIS network, comply with the security guidelines as outlined in the USDA Cyber Security Manual Series 3500; including USDA Departmental Manual (DM) 3515, "Privacy Requirements", and USDA DM 3525, "USDA Internet Use and E-Mail Security". The **Cooperator** will not download any material (i.e., pictures, movies, or music files) bearing a copyright nor access any material defined as inappropriate in these regulations and directives.

l. When transmit frequency determining devices (transmitters) are owned by the Federal Government, the Federal Government will have responsibility for frequency support (frequency authorizations for fixed locations). If **Cooperator**-owned devices are provided, it will be the **Cooperator's** responsibility to obtain frequency support by application to the Federal Communications Commission for use of government frequencies, or to obtain non government frequencies. All radio equipment will be maintained to original factory technical specifications. Mobile radio equipment removed from service will be kept at a central location with notification made to the designated Federal official. Notification of any changes, relocation, or removal of base stations or repeater stations in the system will be made to the APHIS Radio Communications Manager at Lakewood, Colorado, who will be available for technical guidance and, if needed, make periodic trips to monitor the system.

m. Maintain an inventory control system of property purchased by the **Cooperator** in whole or in part with Federal funds as well as Federally-owned equipment on loan to the Cooperator, if any, as required in the Section entitled "Equipment" of 7 CFR 3016.32 or 7 CFR 3019.34, as applicable to the type of recipient institution. Cooperators except States will provide a copy of the inventory to APHIS at the end of the funding period.

n. When the Federal share of total project costs as reflected in the **Financial Plan** is over $100,000 and a cumulative transfer among direct cost categories is in excess of ten percent of the current approved total budget, the **Cooperator** will request written prior approval for the budget revision. The **Cooperator** will submit a revised SF-

424A, Budget Information, and detailed **Financial Plan** under a cover letter to the APHIS awarding official containing a narrative justification for the proposed revision.

o. Comply with the requirements for coordination, development, and use of geospatial data as mandated in OMB Circular A-16, "Coordination of Geographic Information and Related Spatial Data Activities".

ARTICLE 5 – APHIS RESPONSIBILITIES

APHIS agrees to/that:

a. Designate in writing to the **Cooperator** APHIS' authorized representative who shall be responsible for collaboratively administering the activities conducted under this **Agreement**.

b. Provide funds on an advance or reimbursable basis as payment of allowable, agreed-to costs incurred by the **Cooperator** in carrying out the terms of this **Agreement** in accordance with the **Work Plan and Financial Plan.**

c. Make advance payments, if requested by the **Cooperator**, monthly and upon receipt of a properly certified Request for Advance or Reimbursement, SF270.

d. Provide personnel and other resources to carry out its responsibilities as outlined in the **Work Plan and Financial Plan**.

e. Assist the **Cooperator** in selecting qualified candidates to perform activities outlined in the **Work Plan and Financial Plan** and provide general program direction to employees assigned to the cooperative endeavor. However, the assigned employees will remain subject to the **Cooperator's** rules and regulations.

f. Provide special training to carry out assignments, as mutually deemed necessary.

ARTICLE 6 – AVAILABILITY OF FUNDING

This **Agreement** is contingent upon the passage by Congress of an appropriation from which expenditures may be legally met and shall not obligate APHIS upon failure of Congress to so appropriate. This **Agreement** also may be reduced or terminated if Congress only provides APHIS funds for a finite period under a Continuing Resolution.

ARTICLE 7 – UNEMPLOYMENT COMPENSATION

Actual costs incurred for unemployment insurance or equitable contributions made to a self-insured unemployment fund are allowable. APHIS does not allow payment of costs incurred for unemployment claims.

ARTICLE 8 – CONGRESSIONAL RESTRICTION

Under 41 USC 22, no member of or delegate to Congress shall be admitted to any share or part of this **Agreement** or to any benefit to arise therefrom.

ARTICLE 9 – APPLICABLE REGULATIONS

As a condition of this award, the **Cooperator** agrees to comply with the requirements contained in the United States Department of Agriculture's "Uniform Federal Assistance Regulations" , 7 CFR 3015; "Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments", 7 CFR 3016; and/or "Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations", 7 CFR 3019; in addition to "Governmentwide Debarment and Suspension (Non-Procurement)", 7 CFR 3017; "Governmentwide Requirements for Drug-Free Workplace", 7 CFR 3021; "New Restrictions on Lobbying", 7 CFR 3018; and Office of Management and Budget regulations governing "Controlling Paperwork Burdens on the Public", 5 CFR 1320.

ARTICLE 10 – TITLE TO EQUIPMENT

APHIS reserves the right to transfer title to any equipment purchased partially or fully by the **Cooperator** under this **Agreement** with Federal funds within 120 days after this **Agreement** expires or terminates.

ARTICLE 11 – PATENTS AND INVENTIONS

The **Cooperator** has the explicit duty of notifying APHIS' authorized representative, in writing, prior to the time of application for any patent or invention which is paid for in any manner or any percentage of funds provided by APHIS. This duty is not limited to the period during the **Agreement**, but may arise at any time during or subsequent to the **Agreement**. APHIS reserves to itself a royalty-free, nonexclusive, and irrevocable right to use and authorize others to use the product or invention produced under this **Agreement** for Government purposes. APHIS also retains the ability to force utilization of the patented invention by designating licenses in any field of use where the patentee has failed to act with reasonable diligence.

Any royalties or equivalent income earned during the effective period of this **Agreement** on patents or inventions derived under this **Agreement** shall be considered program income and treated under the provisions of 7 CFR 3016.25(g)(1) or 7 CFR 3019.24(b)(3) as applicable.

ARTICLE 12 – COPYRIGHTS

APHIS reserves a royalty-free, nonexclusive, and irrevocable license to exercise, and to authorize others to exercise, the rights for Federal government purposes to copyrighted materials developed under this **Agreement**. Subject to this license, the owner is free to exercise, preserve, or transfer all its rights. The **Cooperator** shall ensure that no agreement is entered into for transferring the rights which would conflict with the nonexclusive license of APHIS.

Any royalties or equivalent income earned during the effective period of this **Agreement** on copyrighted material derived under this **Agreement** shall be considered program income and treated under the provisions of 7 CFR 3016.25(g)(1) or 7 CFR 3019.24(b)(3) as applicable.

ARTICLE 13 – PUBLICATIONS AND AUDIOVISUALS

The final draft of any funded publication or audiovisual must be submitted by the **Cooperator** to APHIS' authorized representative prior to final printing, editing or release of the product so that APHIS can make a determination as to whether APHIS' participation in the project will be acknowledged. APHIS, furthermore, may require that the **Cooperator** modify or purge any acknowledgment of its support for activities conducted under this **Agreement** as a result of its review of a final draft. If APHIS has not responded within 30 days of receipt of the draft, the **Cooperator** will be free to proceed with publication without an acknowledgment. In the event that APHIS elects not to acknowledge the product, the **Cooperator** agrees not to attribute sponsorship by APHIS by any means including, but not limited to, publications, interviews, new releases, etc.

When an acknowledgment is desired by APHIS, unless otherwise instructed by APHIS, the statement shall read: "This material was made possible, in part, by a **Cooperative Agreement** from the United States Department of Agriculture's Animal and Plant Health Inspection Service (APHIS). It may not necessarily express APHIS' views."

Additionally, any other acknowledgment, including use of the APHIS Logo, by the **Cooperator** of APHIS support shall have the express written permission of APHIS signatory to this Agreement, which shall be requested through the APHIS representative designated under this **Agreement.**

ARTICLE 14 – BUY AMERICAN ACT

In the case of any equipment or product that may be authorized to be purchased with financial assistance provided using funds made available under the Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act for the current Federal fiscal year, it is the sense of the Congress that entities receiving the assistance should, in expending the assistance, purchase only American-made equipment and products.

ARTICLE 15 – FUNDING PERIOD OBLIGATIONS AND EXTENSIONS

The funding period is the period during which this **Agreement** is in effect. Any funds not obligated by the **Cooperator** during the funding period will revert to APHIS upon the expiration or termination of this funding period. Under 7 CFR 3019.25 or 7 CFR 3016.30, this **Agreement** is subject to a one-time extension of up to 12 months to complete this project. The **Cooperator** must submit a written request including an SF-424, Application for Federal Assistance, to extend the duration to be received by APHIS **at least 10 days prior to the expiration of the funding period.** The SF-424 must be accompanied by a justification explaining the reason for program delays, the program impact without the extension, and the anticipated completion date. During the extension period, financial and progress reports will continue with the same frequency as provided in the original funding period. As stated in 7 CFR 3019.25 or 7 CFR 3016.30, requests for extension purely to obligate funds will be denied by APHIS.

ARTICLE 16 – NON-DISCRIMINATION CLAUSE

No person in the United States shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in programs or activities funded in whole or in part by the United States Department of

Agriculture based on race, color, national origin, age, disability, and, where applicable, sex, religion or political beliefs.

ARTICLE 17 – FUNDING/EFFECTIVE PERIOD, REVISIONS, AND TERMINATION

The Federal award for this Agreement is in the amount of $350,000.00 and the Cooperator's share is $.00 for a total project cost of $350,000.00. It shall become effective January 1, 2007, and shall continue through December 31, 2007, subject to continuation in writing by mutual agreement of the parties. Further, this Agreement may be amended at any time during the effective period by mutual agreement of the parties in writing. It may be terminated following provisions of 7 CFR 3016 or 7 CFR 3019, as applicable.

MICHIGAN DEPARTMENT OF AGRICULTURE

18 May 2007
Date

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
VETERINARY SERVICES

6-27-07
Regional Director — Date

Attachment 1 – Work Plan and Financial Plan

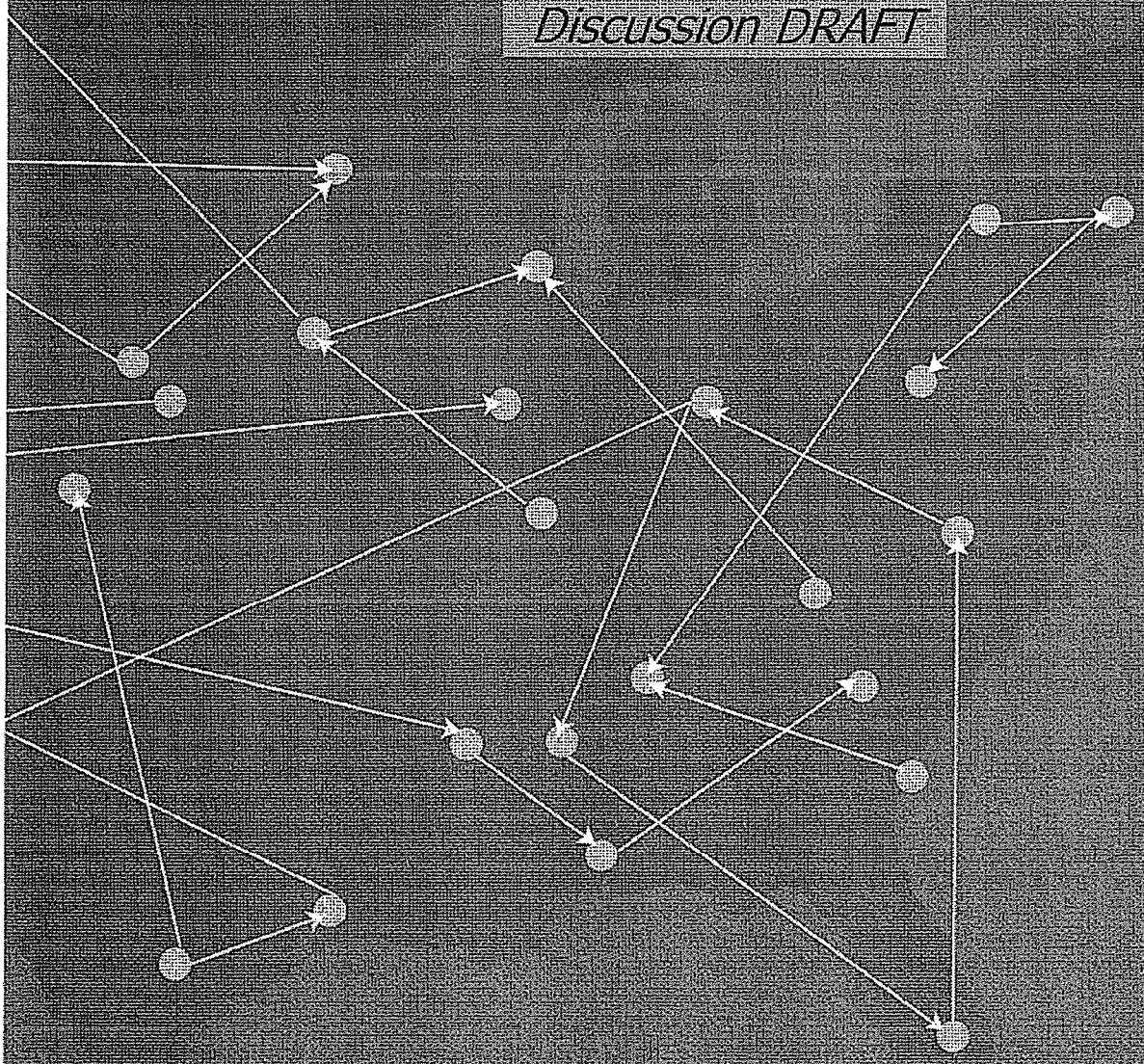
Budget Object Class:	2551
Accounting Code:	752-9626-490
Amount:	$350,000.00

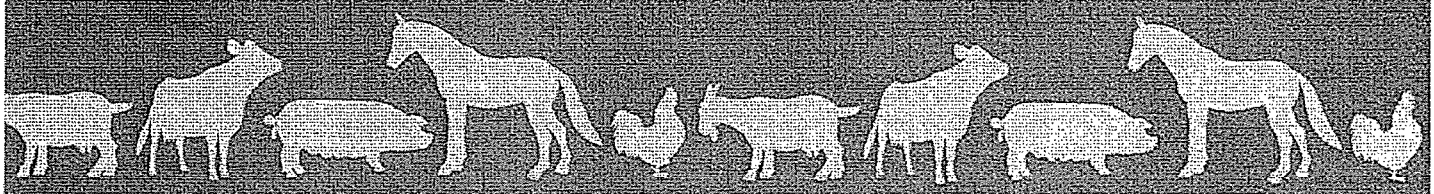
A Business Plan to Advance Animal Disease Traceability

Through the Harmonization of State, Federal, and Industry Programs and Convergence with the National Animal Identification System

October 18, 2007

Discussion DRAFT





USDA United States Department of Agriculture
Animal and Plant Health Inspection Service

Table of Contents

Executive Summary

The ability to successfully trace an animal disease to its source is critical to the health and economic well-being of commercial livestock and poultry industries in the United States Animal health officials require accurate and complete information to respond effectively to animal disease events and to successfully conduct disease surveillance programs. Rapid response minimizes the potential spread of contagious diseases, and lessens the detrimental effects of disease events Our emergency response capabilities can be improved through greater standardization of the data elements needed for animal disease control programs, as well as increased premises registration and animal identification

Key Objectives

This report identifies significant opportunities and strategies for advancing the U.S. animal disease traceability infrastructure. Improvements will result from strategies that support the:

- Utilization of national standards in disease programs to increase the compatibility of information systems;
- Incorporation of national standards in producer-industry programs; and;
- Integration of technologies to improve efficiency and accuracy of data collection.

USDA defines retrieval of traceback data within a 48-hour window as optimal for efficient, effective disease containment. Within this timeframe, animal health officials must have the data required to trace a disease back to its source and limit potential harm to animal agriculture, such as loss of producer income. The sooner reliable data is available, the sooner affected animals can be located, appropriate response measures can be established, and disease spread can be halted.

The National Animal Identification System (NAIS), developed in partnership with State animal health authorities, the animal agriculture production industry, and USDA, provides the common data standards required to close traceability gaps. Although the optimal 48-hour window remains the vision of NAIS and its long-term goal, the industry can make immediate progress toward meeting the needs of animal health officials, in addition to maintaining the confidence of consumers and trading partners.

The strategies discussed in this report support progress to the long-term goal of 48-hour traceback with continued focus on increasing the number of premises registered and now, initiating efforts to increase the number of animals identified to the premises of origin. USDA is prioritizing their efforts by species/sectors where increase in traceability infrastructure can have the greatest return on investment Traceability objectives, action timelines and participation benchmarks are provided for the priority species.

Collaboration between USDA, State animal health authorities, and the animal agriculture production industry remains the catalyst for continued traceability progress. Our collaborators will be crucial to the success of the actions identified in this plan, as well as future strategies—including more detailed actions related to the collection of data on animal movements—as we progress toward our long-term goal. Industry organizations and the NAIS Species Working Groups and Subcommittee will take an active role in the review of these strategies and provide feedback and additional recommendations as we move forward to advance animal disease traceability.

This report defines the following strategies to advance animal disease traceability in the United States:

Strategy 1: Prioritize Species/Sectors

The establishment of priorities among species and sectors within species industries will ensure resources are applied where improvement in traceability is needed the most. This business plan first categorizes species based on existing tracing capabilities and the need for improvement. Tier 1 species include the primary commercial food animal industries – cattle, poultry (chickens and turkeys), swine, sheep, and goats The competition horse industry is included as Tier 1due in part to frequent animal movement. All other livestock and poultry are Tier 2 and will have traceability strategies defined at a later date Additionally, sectors within the Tier 1 species have been prioritized to direct additional emphasis; for example, the beef and dairy breeding herds are the highest priorities within the cattle sector.

Strategy 2: Harmonize Animal Identification Systems

The need for standardized animal identification in government and industry programs is more evident now than ever before. Some disease control programs that are winding down, brucellosis for example, required a high level of identification and traceability In fact, there are numerous disease control programs that require and/or benefit from official animal identification The standardization of animal identification and data collection in these existing systems presents a clear opportunity to enhance traceability. In the private sector, producers are seeking improved and flexible identification methods, and compatible processes and data standards that may be used for multiple purposes. The harmonization of animal identification systems will undoubtedly result in more cost-effective options benefiting producers while achieving increased animal disease traceability for the entire industry.

Strategy 3: Converge NAIS Data Standards in Disease Programs and Regulations

USDA will take steps to adopt and apply NAIS data standards in existing disease programs, including international/interstate commerce regulations. For example, establishing national data standards that identify premises importing and exporting livestock, locations participating in official disease control programs, and origin and destination premises listed on Interstate Certificates of Veterinary Inspection (ICVI) will greatly enhance animal disease tracing and emergency response capabilities.

Strategy 4: Integrate Automated Data Capture Technologies with Disease Programs

USDA will take steps to integrate electronic data capture and reporting technologies into existing disease programs By using NAIS-compliant radio frequency identification (RFID) devices and integrating handheld computers/readers to replace paper-based forms, animal health officials will be able to electronically record and submit essential data to the USDA Animal Health and Surveillance Monitoring database and other appropriate animal health databases. The electronic collection of data will increase volume and quality, minimize data errors, and speed data entry into a searchable database.

Strategy 5: Partner with States, Tribes and Territories

State animal health authorities play a critical role in advancing national animal disease traceability. Working in close partnership with State, Tribal and Territorial officials, USDA will continue to support the advancement of each State's disease traceability infrastructure. Each State Animal Health Officials will administer and manage localized plans reflecting the animal health priorities in individual regions.

Strategy 6: Collaborate with Industry

Achieving traceability objectives requires a partnership between the production sector and animal health officials. Producer organizations, representing member interests, can accelerate the adoption of practices that advance traceability. USDA has entered into cooperative agreements with non-profit industry organizations to promote premises registration within various species groups. Collaboration with USDA accredited veterinarians will enable the delivery of accurate information to clients as well as enhancing the adoption of NAIS data standards in everyday production management systems and disease program activities at the producer level. Additional partnership efforts with industry alliances, service providers, auction markets, feedlots, harvesting facilities, and other industry sectors are a priority for USDA.

Strategy 7: Advance Identification Technologies

Continued advancements in traceability require practical, affordable technology solutions that improve efficiency and accuracy of animal ID data collection. USDA will collaborate with stakeholders to establish performance standards for ID devices and evaluate emerging technologies with emphasis on systems that can operate at the "speed of commerce."

Outcomes and Timelines

Significant progress will result from the planned strategies and actions detailed in this business plan. As noted previously, because the need to advance traceability differs among the various species and sectors, it is important for USDA to establish clear priorities as we proceed with NAIS. Targeted timelines for the key strategies and actions are summarized on Section 5 to guide the implementation of these priorities.

At this time, the cattle industry has the greatest need to advance traceability, due, in part, to its size and diversification. These challenges require more resources and time to achieve optimum tracing capability for the cattle industry. Success of the plan is then determined by the level of traceability improvement, and for the cattle industry is defined as achieving 70 percent of the cattle breeding herd identified to their birth premises by January 2009. Other species traceability objectives are defined in this section.

Conclusion

Opportunities to advance traceability will continue to evolve as these strategies are successfully implemented. Additionally, industries will face new animal health demands as the animal agriculture industry changes. Therefore, the strategies will continue to be evaluated and adjusted to ensure that we continue to advance towards the optimum goal of a 48-hour traceback as timely and efficiently as possible.

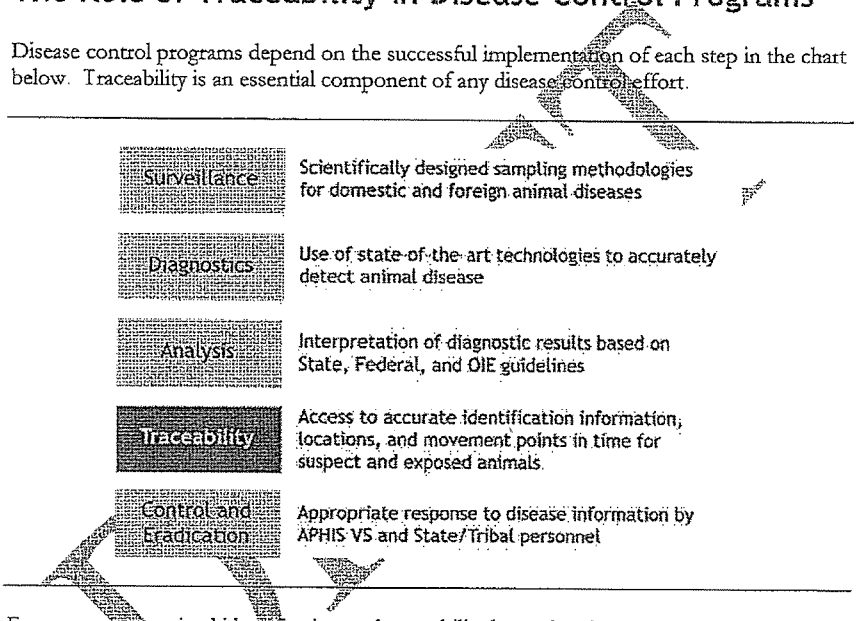
Background: Traceability and Key Resources

Introduction

In the field of animal health traceability is defined as the ability to document all relevant elements—movements, processes, and controls—needed to determine the life history of an animal This is accomplished by uniquely identifying animals, either individually or by group/lot, and recording their movements within the production chain. The main goal of an animal traceback system is to provide information regarding the source and extent of disease infection—which is key to protecting U.S animal health and marketability.

The Role of Traceability in Disease Control Programs

Disease control programs depend on the successful implementation of each step in the chart below. Traceability is an essential component of any disease control effort.



For many years, animal identification and traceability have played a critical role in USDA animal health programs—from vaccination eartags within the brucellosis eradication program, to the use of approved identification devices within the national scrapie and tuberculosis eradication programs. Animal identification and traceability are key to managing disease outbreaks; monitoring official vaccination programs; documenting affected and unaffected regions of a country or State for zoning and compartmentalization necessary for maintaining trade; providing timely animal movement information when needed; and establishing effective animal health inspection and certification programs.

In most cases, animal health officials have used animal identification and traceback within programs in response to existing or threatening outbreaks of specific diseases. Successful examples of this approach include the Cooperative State/Federal Brucellosis Eradication Program (cattle), the Pseudorabies Eradication Program (swine), and the National Scrapie Eradication Program (sheep/goats). Disease surveillance, eradication, and control programs such as these have achieved significant success over the years in reducing animal disease in the United States

The Current Challenge

This success, however, has led to a paradox in the field of animal health. As diseases have been eliminated, participation in active disease programs has lapsed—causing the traceability infrastructure in our country to be less effective than it once was. In the past, when livestock diseases (i.e., brucellosis, tuberculosis) were widespread, cattle herds and other animals were commonly tested and vaccinated. The animals were officially identified as part of this process, and their movements were recorded in government systems. As a result, the cattle industry had a high level of traceability.

Prior to NAIS

When a herd was tested for brucellosis, the event was recorded in the brucellosis section of the "Generic Database." The data entry clerk, before entering the data, first searches for the herd to determine if it has already been entered into the system. If the herd cannot be found, a new record for that herd is created that includes all the contact information and descriptive data that is needed. The problem is that the Generic Database does not have a built-in mechanism to prevent more than one herd record to be created for a single location. Thus, if the clerk does not do a thorough and exhaustive search, duplicate records may exist.

As another example, the Smith Farm (purely fictitious) located at 123 Somewhere Lane, Anywhere, Kansas could be listed as Smith Farm, Smith and Sons, Ltd., S and S Farms, etc. A record may also be created once for the brucellosis program, again for the tuberculosis program, and yet again for the scrapie program. Some States are better about entering duplicates, but there have been many cases where a given address is associated with five or six different records that were found only after time-consuming database searches.

This level of identification not only supported the needs of specific disease programs, but also provided traceability for foreign animal disease investigations and other disease control efforts. Today, most States are free of tuberculosis, brucellosis, and other significant livestock diseases. With the decreasing need to test and vaccinate animals regularly for these diseases, there has been a drastic reduction in the number of officially identified animals. This has resulted in a "broken" traceability system.

In addition to reduced participation, the current structure poses a second challenge: it is based on animal identification and data collection that is focused on individual objectives (i.e., specific disease eradication programs, interstate commerce, breed registries, and age/source verification). These separate programs use distinct herd and flock identification protocols that are not based on common data standards, and do not use integrated data systems. Because the data systems from separate programs cannot "talk" to each other, an animal may be identified multiple times yet still not be fully traceable. For example, if an animal is only identified as part of the brucellosis eradication program, it is difficult to trace that animal in the event of bovine tuberculosis infection.

This lack of standardization and integration within U.S. animal health data systems is the most significant challenge today in conducting successful animal traceback and controlling animal disease. To overcome this challenge, we must apply common data standards and modern technology so that separate databases can communicate with each other. This will enable animal health officials to access accurate and complete traceback information maintained by multiple sources. When an outbreak occurs, animal health officials must identify the specific animals involved or exposed—including where they have been, when they were there, and in some cases, why they were there. Obtaining this information quickly significantly reduces the scope and magnitude of an animal disease investigation and minimizes the time and costs involved in these efforts.

Resources

NAIS was designed by industry representatives and State and Federal animal health officials to complement the numerous APHIS VS programs and databases already in place to protect animal health and respond to disease NAIS provides national data standards for animal identification, location, and animal movement information systems that can be used for management, marketing, and animal health purposes for all animal and livestock species. USDA APHIS is focused specifically on animal health programs --- NAIS provides the common link between existing disease control programs and databases This approach conserves time, money, and effort by using systems and data already in place.

In short, the most efficient, cost-effective approach for advancing the country's traceability infrastructure is to capitalize on existing resources—mainly, animal health programs/personnel and animal disease information databases. These resources represent an available capability and key opportunity to optimize traceability Accordingly, they will play a significant role in USDA's efforts to strengthen the U.S animal health traceability system

A brief description of these resources is provided below

Animal Health Programs and Personnel

APHIS-Veterinary Services protects and improves the health, quality, and marketability of our Nation's animals, animal products, and veterinary biologics by preventing, controlling and/or eliminating animal diseases, and monitoring and promoting animal health and productivity

Current examples of VS disease eradication programs include, among others, cooperative State-Federal efforts for:

- Brucellosis in cattle, bison, and swine;
- Tuberculosis in cattle and cervids;
- Scrapie in sheep and goats; and,
- Pseudorabies in swine.

VS also has control and certification programs to address chronic wasting disease in cervids; Johne's disease in cattle; and trichinae in swine. Ongoing surveillance programs include bovine spongiform encephalopathy (BSE), infectious salmon anemia, classical swine fever, and avian influenza

Disease control and eradication measures include:

- Quarantines to stop the movement of possibly infected or exposed animals;
- Testing and examination to detect infection;
- Depopulation of infected and sometimes exposed animals to prevent further disease spread;
- Treatment to eliminate parasites;
- Vaccination; and,
- Cleaning and disinfection of contaminated premises

VS animal health programs are carried out by a field force of approximately 250 veterinarians and 360 lay inspectors working out of Area Offices (usually located in State capitals). APHIS' National Veterinary Services Laboratories at Ames, Iowa, and Plum Island, New York—centers of excellence in the diagnostic sciences and an integral part of APHIS' animal health programs—provide laboratory support for these programs.

State animal health authorities are responsible for animal disease issues at the State level, the administration of interstate certificates of veterinary inspection, assisting with the delivery of the Federal programs, and overseeing State-specific disease control activities and regulations.

Accredited veterinarians are private veterinarians authorized by USDA-APHIS to perform official regulatory functions on behalf of the USDA. Accredited veterinarians provide the first line of surveillance for reportable domestic and foreign animal diseases, assist with interstate and international movement of animals and animal products, ensure national uniformity of regulatory programs, and are key participants in State-Federal-Industry Cooperative programs.

Currently, 15,000 of the more than 60,000 accredited veterinarians in the United States are involved in large animal practice. In both 2005 and 2006, accredited veterinarians tested more than 600,000 cows and heifers for brucellosis, vaccinated in excess of 4 million calves against brucellosis, and conducted over 1 million tests for tuberculosis.

Animal Disease Information Databases

A highly reliable, complete, cost-effective information system is key to the success of animal health programs. The APHIS-VS Animal Health Information System (described in Table 2) has evolved over time using distinct herd and flock identification protocols. The NAIS now provides a "standardized source" for key data elements. This enables the various animal health databases to use the same fundamental epidemiological information regarding animal(s), place, event, and time across multiple programs and systems.

Databases are not new to USDA animal health programs. The following databases and information systems were in place prior to NAIS and continue to provide critical infrastructure that supports APHIS-VS animal disease programs. These systems now use the National Premises Information Repository (NPIR) and the Animal Identification Management System (AIMS) to obtain "centralized" and standardized premises and animal identification information. In the future, these databases will be integrated with the Animal Trace Processing System (ATPS), which enables animal health officials to obtain necessary information from all systems when responding to a disease event.

Database	Purpose	Dates	NAIS Link
Animal Health and Surveillance Management (AHSM)	Maintains test and or vaccination data from herds and flocks in disease programs such as brucellosis, tuberculosis, pseudorabies, etc	1977 (initially known as the Animal Disease Generic Database)	NPIR AINMS ATPS[1]
Veterinary Services Process Streamling (VSPS)	Administration of permits and certificates for import/export, interstate commerce and veterinary accreditation	1996	NPIR AINMS ATPS[1]
Emergency Management Response System (EMRS)	Records information resulting from all foreign animal disease investigations and provides incident management	2002	NPIR AINMS ATPS[1]

[1] The ATPS will be integrated with these databases in the future as the ATDs come on-line.

NAIS was developed to provide the data standards and system functionality needed to link APHIS VS databases, and those maintained separately by the States and private sector. NAIS is comprised of three elements:

- **Premises Registration**. Registration of locations that manage livestock or poultry (farms, feedlots, veterinary clinics, and livestock markets) with a system that prevents assigning more than one identifier to a given location;

- **Animal Identification**. Officially identifying animals on these premises (either individually or as groups) with an approved method and that accounts for each number issued and the premises to which it was assigned; and,
- **Animal Tracing**. Recording animal movements from one premises to another in private and State Animal Tracking Databases using standard data fields and data transfer

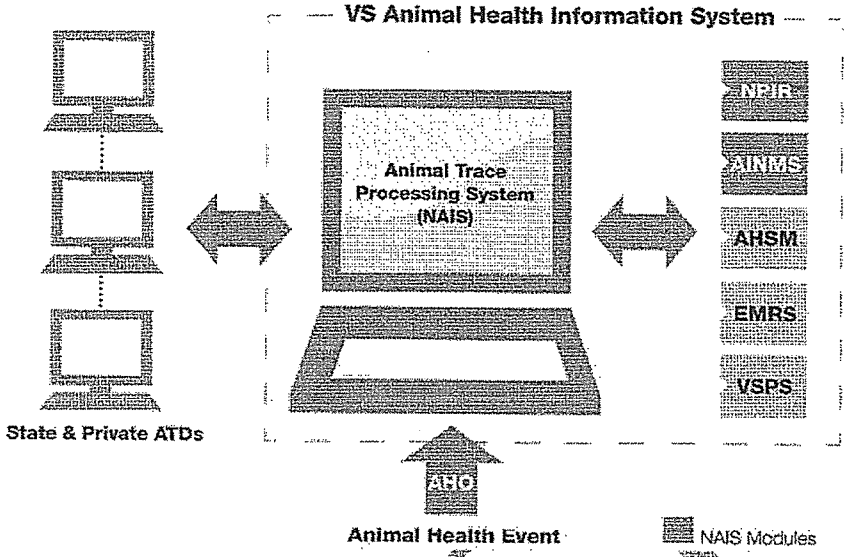
NAIS Participation

NAIS also provides the opportunity for producers that are not part of a disease program to participate in national animal health safeguarding efforts. NAIS is voluntary at the Federal level, and the program has been structured as a Federal-State-Industry partnership. Responsibility for implementing NAIS is shared among numerous entities: State and Tribal governments, industry groups/private companies, and USDA.

Through NAIS, States, Tribes, and Territories use established standards to register premises within respective geographic regions and maintain Premises Registration Systems. Industry organizations and States provide the Animal Tracking Databases (ATD) that maintain animal movement records.

Databases	Purpose	Date Deployed
Standardized and Compliant Premises Registration Systems (SPRS and CPRS)	Administration of premises registration by States and Tribes.	2005
National Premises Information Repository	Maintains record of all PINs allocated and premises information submitted by the SPRS and CPRS	2005
Animal Trace Processing System (ATPS)	Provides communication capabilities with ATDS and all VS Animal Health information systems during a disease investigation.	2007
Animal Tracking Databases	Maintains animal movement records	2007

The USDA provides the Animal Trace Processing System (ATPS) that allows State and Federal Animal Health Officials to have a single point of access to the information needed to conduct an investigation. The following diagram illustrates one of the most significant outcomes of the NAIS — the capability for databases to "talk" when information is needed to support responses to animal disease events



Authorized access of Federal and State Animal Health Officials to the AIPS is initiated when:

- An indication (suspect, presumptive positive, etc.) or confirmed positive test of a foreign animal disease;
- An animal disease emergency as determined by the Secretary of Agriculture and/or State Departments of Agriculture; or
- A need to conduct a traceback/traceforward to determine the origin of infection for a program disease (brucellosis, tuberculosis, etc.).

Strategies for Advancing Traceability

USDA's overall objective is to establish an animal tracing infrastructure that will retrieve traceback data within 48 hours of a disease detection. For efficient, effective disease containment, animal health officials must have the data required to trace a disease back to its source and limit potential harm to animal agriculture. The speed with which one may access critical animal location and movement information, subsequently referred to as "traceback data," determines the timeliness—and effectiveness—of the disease control and containment effort. USDA defines the retrieval of traceback data within 48 hours as optimal for effective disease containment

USDA will work toward this long-term objective by implementing immediate, short-term strategies, as outlined in this business plan. These strategies will increase participation in NAIS, bolster the existing animal disease response network, reduce the amount of time required to conduct and complete a disease investigation, and continue to build critical Federal-State-Industry partnerships necessary for animal disease control and eradication success.

While the development of the complete traceability infrastructure is complex and will take significant time and resources, USDA is committed to achieving incremental and timely progress by increasing the number of premises registered and animals identified at their premises of origin. In doing so, USDA will adhere to two fundamental principles:

- Achieving necessary levels of participation (referred to as "critical mass"); and,
- Obtaining the most critical data points—birth premises and animal termination records. This is often referred to as the "book end" approach, and is the most practical starting point.

These practices complement the overall traceability objective for all species while providing a practical and effective approach to advance traceability specifically within those sectors designated as high priority.

Achieving Necessary Participation

"Critical Mass"

The seven strategies discussed below are designed to increase participation in NAIS in order to achieve a "critical mass" of participation. Critical mass is defined as the minimum percentage of officially identified animals within each species/sector required to achieve "traceability." While NAIS implementation guidelines encourage all producers to participate, USDA is focusing first on those stakeholders with the greatest number of animals. For example, in the cattle industry, over two-thirds of the animals are managed by less than one-third of the producers. Those producers represent and accept the greatest biosecurity risk associated with animal disease—they have more opportunities for disease exposure and spread due to the volume of animals, frequency of animal movements, potential for commingling, feed delivery, and human traffic. In this situation, the use of NAIS (premises registration, animal identification, and the reporting of certain animal movements) can substantially assist in mitigating those risks and responding to a disease event if necessary.

In order to achieve "critical mass," USDA estimates that 70 percent of the animals in a specific species/sector need to be identified and traceable to their premises of origin. This estimate will serve as a benchmark for advancing animal disease traceability through 2011. The strategies below are designed to offer short-term advances in the number of animals and

premises officially identified while increasing the quantity and quality of traceback data that could be used to respond to a disease event.

"Bookend" Approach

Current animal identification systems generally provide enough information to allow an animal health official to trace most livestock back to the previous owner's premises, but not to or from the premises of origin (birth). This plan recommends an approach that identifies animals at their birth premises and also at harvest, rendering, or some other termination point—i.e., the "bookend" approach. Being able to conduct a disease investigation from two points of reference, preferably from opposite end points in time, significantly increases an animal health official's ability to more quickly trace a disease of concern.

Today, most disease investigations are conducted using only the information available on the backtag collected at slaughter. These investigations often involve testing hundreds of animals in an attempt to determine the scope of a disease outbreak and to locate potentially affected and exposed animals. The longer an investigation takes, the greater the chance for significant production losses, increased testing costs, restriction of interstate and international animal movement, and, unfortunately, potential further spread of the disease. By using the "bookend" approach in NAIS implementation, the result will be an immediate improvement in the way animal disease investigations are currently conducted. As NAIS implementation proceeds, the animal movement information within the "bookends" will be added to the system, further increasing the efficiency and effectiveness of animal disease investigations as the long-term goal of 48-hour traceback information is achieved.

"Bookend" Approach Scenario

Cow "A" has been diagnosed with bovine tuberculosis at slaughter plant "X". Because cow "A" had a NAIS-compliant RFID eartag applied at the premises of origin, the State animal health official is able to initiate both a traceback from the previous premises and a trace forward from the premises of birth. The NAIS will provide immediate information regarding the animal's premises of origin. Without official identification, determining the origin of the animals could take weeks. By knowing where the animal's movements began and ended, the animal health official is able to review sales receipts and other producer records and talk to previous owners to more accurately and efficiently determine where cow "A" has been and what other animals might have been exposed.

Strategy 1: Prioritize NAIS Implementation by Species/Sectors

Targeted Species

Animal diseases are not always species-specific; therefore, the traceability plan includes all livestock and poultry species. However, the need to advance traceability capabilities for certain species is greater than for others. To address these differences, while also considering the economic merit (sales and revenues) of each species or sector to U.S. agriculture, each species/commercial sector has been designated as either Tier 1 or Tier 2. Tier 1 species/sectors include the primary food animal species/sectors: (1) beef and dairy cattle, (2) swine, (3) poultry (chickens and turkey), and (4) the sheep and goat industry. Additionally, due to its significant revenues to animal agriculture and sometimes continuous movement to events, the sport and competition horse industry is included in the Tier 1 group. All other livestock and poultry are designated as Tier 2.

While animal disease traceability is necessary for all species, this business plan will focus on Tier 1 species.

Species/Sector Prioritization

The information and infrastructure needed to achieve USDA's long-term goal of 48-hour traceback can vary significantly by species, and for sectors within species. Variations in the management and marketing structure of each species sector, including degree of vertical integration, can also complicate progress towards achieving this goal. Prioritization of species/sectors will ensure resources are applied where traceability advances are of the highest importance and that will offer the greatest return on investment.

Method for Determining Priorities

In 2007, USDA conducted a qualitative assessment to determine which species/sectors would benefit most from increased use of premises identification, individual animal or group/lot identification, and the reporting of specific animal movements in regards to controlling and eradicating animal disease. USDA examined the following key factors and their role in advancing traceability:

1. Disease characteristics/issues
   - Risk of contracting diseases of concern (both foreign and domestic)
   - Interaction with other species and/or wildlife and the potential of disease spread to other species or sectors
   - Potential impact to human health
   - Rate and scope of disease spread
   - Degree of animal movements and commingling
   - Existence of an ongoing Federal/State disease surveillance/control/eradication program
   - Cost of indemnifications
   - Historical costs of controlling or eradicating diseases

2. Animal identification
   - Need for individual or group lot identification
   - Current use, if any, of individual or group lot identification methods

3. Disease tracing requirements/capabilities
   - Level of tracing (traceback or trace forward) necessary to control or eradicate diseases of concern (trace to last premises, to birth place, etc.)

- Ability of industry to provide critical animal location and movement information to USDA within 48 hours of a disease detection

4. Demographic information
   - Economic value of industry
   - Size of industry (number of animals)
   - Degree of vertical integration
   - Vulnerability to intentional attack

Definition of Priority Designations

Based on the results of the assessment, each species was assigned a designation of low, medium, or high priority. The designation of "Low," "Medium," and "High" priority reflects the emphasis each species and each sector will be given in the implementation of the strategies and actions of this report.

- The "High" priority designation indicates those species/sectors that currently have the most need to improve traceability infrastructure relative to the risk and impact of disease spread. For example, a "high-priority" species sector may benefit by shortening the timeframe it currently takes to conduct a traceback investigation. In another high-priority species sector, the risk and associated impact of a potential disease outbreak warrants stronger, more comprehensive traceback capabilities.
- The "Medium" priority designation is used for species/sectors that have adequate animal tracing systems in place, but still have significant opportunities for improvement in their traceability levels.
- A "Low" priority designation means that the species/sector either already has high levels of traceability or has lesser disease concerns that would be of economic significance. Therefore, the return on investing additional resources may provide minor benefits from improvements in the U.S. animal health traceability infrastructure.

Priority Designations

The species were prioritized as follows:

Low	Medium	High
Ovine (Sheep) Aquatics	Porcine (Swine) Equine (Horses)[2] Poultry (Chickens and Turkeys) Cervid[1] (Deer and Elk) Caprine (Goats)	Bovine (Cattle)

[1] Tier-2 species that are part of the existing animal health programs within APHIS Veterinary Services.
[2] Competition Horses are designated Tier 1 and Medium priority among Tier 1 Species

Sector within Species Priority Designations

Most species have a few distinct sectors that may differ significantly in their structure and traceability needs. To ensure proper attention is given to those sectors that have the most to gain, each was categorized separately on the "High" to "Low" scales to reflect sector priorities within the species These sector ratings are illustrated in the following profiles.

Sector Profiles and Opportunities

The population estimates provided in the following charts were obtained, for the most part, from the 2002 National Agriculture Statistics Survey (NASS) and, when available, from the July 2007 NASS Reports.

Cattle

Industry Size

It is estimated, as of July 2007, that there are over 104 million cattle located on more than 1 million premises

Cattle Populations	
Beef Cattle[1]	
Cows	33,350,000
Replacements	4,700,000
Other Heifers	8,000,000
Steers > 500 lbs.	14,900,000
Bulls > 500 lbs	2,100,000
Calves < 500 lbs.	28,700,000
Total	91,750,000
Dairy Cattle[1]	
Cows	9,150,000
Replacements	3,900,000
Total	13,050,000
Total Cattle	104,800,000
Premises[2]	
Beef Operations (>1 cow)	762,880
Dairy Operations	75,140
Feedlots (>1000 head)	2,165
Feedlots (<1000 head)	86,000
Other Cattle Operations	120,355
Total	1,046,540

[1] *Cattle*, National Agricultural Statistics Service, July 2007
[2] *Cattle* National Agricultural Statistics Service 2006.

Sector Priorities

The cattle sectors overall could benefit significantly from advancing traceability In particular, the breeding populations are designated as the highest priority, due to their longer lifespan and subsequent likelihood to occupy multiple premises throughout their lifetimes.

Bovine	Sector Rank		
Sector	Low	Medium	High
Bison	■		
Beef - Cow/Calf			■
Beef - Feeder Cattle[1]		■	
Dairy - Cows/Bred Heifers			■
Dairy - Replacements			■
[1] Feeder, Stocker and Fed Cattle			

Beef Cattle

Industry Structure

Independent operations dominate the U.S. beef industry, and while it is not as vertically integrated as other industries, retained ownership of calves beyond weaning has increased. The beef industry has several distinct sectors, including cow/calf operations, stocker/backgrounder, feedlots and harvesting facilities. Often, information on cattle is not seamlessly passed from one sector to another, at least not on an individual animal basis Accordingly, the ability to trace an animal through all production segments is not consistent

Tracing Capabilities

According to the 1997 NAHMS Beef Study, approximately 50 percent of the beef producers did not use any form of individual identification on cows and heifers However, nearly 65 percent of the cows and calves have some form of individual identification. A high percentage (~75 percent) of feedlot and stocker cattle are unofficially identified upon entry for recordkeeping and management purposes. Frequently, however, identification from the birth place is removed upon the animal's arrival at the feedlot or stocker operation. To ensure proper surveillance and response to a contagious disease are completed, animal health officials often find it necessary to test more herds than would be necessary if animal identification was at a higher level. Additionally, the time required to complete disease traceback is greatly extended as the percent of unidentified animals increase.

Opportunities to Advance Traceability

Significant potential exists to enhance traceability capability for U.S. beef herds by focusing on efforts to increase unique identification of beef breeding cattle Verification programs (source, age, process, etc.) are becoming more common and are impacting the need for animal identification and other information specific to each animal. More fed cattle are identified with RFID tags so their history can be tracked for ownership, genetics, post-weaning performance, health status and carcass composition and quality While a small percent of breeding heifers are officially identified, a significant number of them are identified through the calfhood vaccinations program Animal health officials, as a rule, can successfully trace many beef cattle from the slaughter plant to the feedlot. However, the ability to trace individual animals from the feedlot to origin of birth is often limited.

Disease Surveillance Data

Situation: Evaluation and review of USDA adult bovine surveillance data acquired from September 2006 through April 2007 indicate that of 21,893 samples obtained, only 6,203 (28%) possessed an official, unique USDA silver tag or USDA orange brucellosis vaccination tag. An additional 17% of this sample population possessed a unique backtag number. Combined, less than half of adult cattle (45%) can be associated with any USDA official identification system.

Impact: Breeding cattle herds in the United States, which are important to multiple cattle disease surveillance programs, are often lacking unique individual identification. The ability to associate official identification with various points in time, and gain useful information in conducting a traceback, is substantially hampered by this lack of animal identification.

Dairy Cattle

Industry Structure

Like the beef industry, the U.S. dairy industry is not vertically integrated. Herd sizes have increased significantly over the past decades due to the now common practice of raising heifer replacements on farms and ranches separate from milking facilities.

Tracing Capabilities

Approximately half of the 69,000 U.S. dairy herds are identified through the industry's milk recording program, the Dairy Herd Improvement Association (DHIA). Producers who participate in DHIA identify each cow for performance recording, and many contribute to generic summarization. DHIA, for the most part, has used the National Uniform Eartagging System for official identification purposes. Breed registries also provide valuable identification and such records are sometimes used to enhance disease traceback efforts. Holsteins currently represent about 95 percent of the dairy herd, 15 percent of which are registered.

Opportunities to Advance Traceability

By using the standardized PIN in the administration of the National Uniform Eartagging System, a significant number of dairy cattle would be identified to their birth premises. Additionally, the use of NAIS-compliant animal ID numbers for breed registration purposes would increase the number of calves identified and traceable to their birth premises.

Increasingly, dairies are using RFID eartags for management and recordkeeping purposes. Establishing the NAIS "840" numbering system as the official numbering system for RFID eartags and phasing out the recognition of other numbering systems over time will increase the widespread use of NAIS-compliant tags for day-to-day management purposes.

Since many dairy calves and heifers move interstate to rearing facilities and dairy herds, the opportunity to cross-reference individually identified cattle with premises of origin and destination is significant. By revising existing interstate commerce regulations regarding bovine tuberculosis to include the use of the standardized PIN for origin and destination premises, USDA would significantly increase the traceability of a large percentage of the national dairy herd.

National Bovine Tuberculosis Statistics

Situation: From October 1, 2003 through March 17, 2007, 156 positive cases of bovine tuberculosis were identified in the United States. Of those cases, 11% of the animals had no identification whatsoever, and 83% of the positive cases did not have official USDA individual identification present.

Impact: USDA and State investigative teams spend substantially more time and money in conducting tracebacks, including an expanded scope of an investigation to identify suspect and exposed animals. According to disease traceback close-out summaries, the average time spent conducting a traceback for the most recent 27 bovine tuberculosis investigations was 199 days; 125 days for the last 4 investigations.

Recommended Actions - Cattle[1]

- Collaborate with industry organizations, including Veterinarians, to increase the awareness of animal disease traceability issues and to advance premises registrations of cattle operations and official identification at point of origin;
- Integrate NAIS-compliant RFID tags in brucellosis calfhood vaccination program and bovine tuberculosis testing;
- Utilize the standardized Premises Identification Number (PIN) in the administration of all animal disease programs;
- Implement the recording of PINs for the destination of all imported cattle and the last premises of cattle that are exported;
- Use the standardized PIN on Interstate Certificates of Veterinary Inspections (ICVIs) to record origin and destination premises of cattle;
- Increase premises registration of Federally-inspected slaughter facilities; and,
- Integrate the use of AIN devices with the "840" number with industry programs; marketing alliances, verification programs, breed registries, performance recording.

Equines

Industry Size

It is estimated that there are approximately 5.8 million horses on 570,000 premises as of June 2007. This traceability plan focuses on the competition horse industry, specifically race, show and exhibition horses. Using breed registry statistics it is estimated that these sectors account for approximately 50% of the 5.8 million horses.

Industry Structure

Among livestock, horses are unique in that they live longer, are generally more valuable, are transported interstate and internationally more often, and are imported and exported on a regular basis. Many horses are routinely identified for breed registries, horse identification services, or to ensure the integrity of the racing and wagering industry. The traceability of horses for disease control purposes is critical in the competition (sport) horse industry. All sport horses fall into two major categories, with the following subgroups:

- *Race Horses* identified through the breed registry mandatory identification programs; Jockey Club, United States Trotting Association (USTA) and American Quarter Horse Association (AQHA)
- *Show Horses* identified through the new mandatory United States Equestrian Federation (USEF) Horses Identification (HID) Program

[1] For each sector, USDA has identified a number of actions that will help capitalize on the available opportunities to advance traceability. These actions are explained more fully in the remaining "strategies" sections of this document.

Tracing Capabilities

Of the 5 8 million horses in the United States, approximately 2.2 million are tested annually for equine infectious anemia (EIA) using the Coggins test. There are numerous equine breed registries that record individual animal identification and location-related information. However, availability of registry information for traceback purposes is variable. Because a given equine premises may board many different breeds of registered horses, utilized in a variety of different disciplines, a single premises may be registered with multiple organizations, with the resulting address redundancy complicating premises identification.

The horse industry (sport and competition horses)—due to its significant revenues to animal agriculture and frequent, sometimes continuous movements to events—is designated as a high priority sector.

Equine	Sector Rank		
Sector	Low	Medium	High
Competitive Horse Industry (Sport and Competition)			■
Non-competition/Recreation	■		

Opportunities to Advance Traceability

Coggins testing is a prerequisite for all interstate movement (state requirement), and in some states, for intrastate movement as well. Efforts are underway to develop a USDA national state-federal cooperative program for the control of EIA that would establish national EIA (Coggins) testing requirements for (a) interstate movement and (b) change of ownership. Horses must be identified (description/drawing, digital photograph, electronic implant) on the requisite Coggins test-related paperwork. Overall, establishing regulations to require premises registration in association with Coggins testing would substantively increase the number of both premises registered and horses identified. When horses move interstate to attend shows or exhibitions, registration is required upon entry. Accordingly, event officials are able to track horses moving intra- or interstate (via interstate passport) to the farm of origin. Concurrently, animal health officials are able to track to the premises of origin and destination via Interstate Certificates of Veterinary Inspection (ICVI) for horses moving interstate. Though impossible to quantify nationally, experience has shown that the number of Coggins tests performed annually increased three-fold following implementation of a "change-of-ownership" testing requirement in Texas

The NAIS Equine Species Working Group has recommended the use of ISO-compliant injectable transponders for horse identification

Recommended Actions

- Integrate the standardized Premises Identification Number (PIN) on Coggins test-related paperwork;
- Implement the recording of PINs for the destination of all imported horses and the last premises of exported horses;
- Use PINs for both premises of origin and destination on ICVIs;
- Collaborate equine organizations to integrate the utilization of the AIN "840" identification devices;
- Expand the utilization of electronic ICVI; and,
- Support industry efforts to integrate automated data capture technologies at equine events and establish necessary interfaces with APHIS VS information systems

Swine

Industry Size

It is estimated that there are more than 65,000 swine operations in the United States caring for nearly 65 million pigs as of September 2007.

Swine Populations	
Hogs and Pigs[1]	
All Breeding	6,145,000
All Market	58,503,000
Total	64,648,000
Premises[2]	
Operations with Hogs	65,540

[1] *Hogs and Pigs*, National Agricultural Statistics Service, September 2007.
[2] *Hogs and Pigs*, National Agricultural Statistics Service, 2006

Industry Structure

The majority of swine operations in the United States are relatively small with less than 100 head each. Approximately 95 percent of pork, however, is produced by operations under contract with slaughter plants. About 80 percent is produced by commercially integrated businesses.

Tracing Capabilities

Slaughter plants maintain records regarding the number, date, and supplier for pigs received, permitting traceability to the previous production phase. Commercially integrated businesses are able, with varying degrees of specificity, to trace groups of animals through each segment of the production chain (nucleus, multiplier, production, farrowing, and wean-to-finish operations) for animal disease control purposes. Records are maintained for weaned, finished, or culled pigs regarding movement dates, number moved, as well as where they were moved to and from (specific to both geographic location and building).

Swine	Sector Rank		
Sector	Low	Medium	High
Commercially Integrated Operations		■	
Sows/Boars		■	
Transitional		■	
Food Waste Feeding Operations			■

Opportunities to Advance Traceability

The Group/Lot numbering system included in NAIS fits well with production management practices used in the swine industry. The Group/Lot Identification Number (GIN) incorporates the PIN and the date the group was assembled, providing valuable traceability information simply by examining each GIN itself.

Recommended Actions

- Support the cooperative agreement with the National Pork Board to achieve a high level of premises registrations of swine operations; and

- Implement the use of Premises Identification Number tags for sows and boars.

Poultry

Industry Size

It is estimated that there are more than 1 8 billion chickens and 93 million turkeys on approximately 162,000 locations.

Chicken and Turkey Populations[1]	
Chickens	
• Broilers	1,389,279,000
• Layers	334,435,000
• Pullets	94,882,000
Total	1,818,597,000
Turkeys	
• Turkeys	93,028,000
Total (Chickens and Turkeys)	1,911,625,000
Premises	
Chickens	146,200
Turkeys	16,600
Total	162,800

[1] *Census of Agriculture*, National Agricultural Statistics Service, 2002

Industry Structure

The majority of chickens and turkeys marketed in this country are part of a highly integrated production chain led by commercial interests.

Tracing Capabilities

The commercial poultry industry is currently able to trace groups of animals through all aspects of the production chain (nucleus, multiplier, breeder, hatchery, grower, and layer operations), for either animal disease control purposes. Records are maintained by the industry regarding specific dates that eggs, chicks, pullets, spent breeders, or layers are moved, the number moved, where they were moved from, and specifically where they were moved to, i e., the incubator, building, or slaughter plant level

Poultry	Sector Rank		
Sector	Low	Medium	High
Chickens			
Multipliers		■	
Broilers			■
Layers		■	
Turkeys			■

Opportunities to Advance Traceability

The National Poultry Improvement Plan (NPIP) is a cooperative industry-State-Federal program through which new technology can be effectively applied to improve poultry and poultry products. Regulations regarding NPIP, developed jointly by industry members and State and Federal officials, establish standards for the evaluation of poultry breeding stock and hatchery products, and the elimination of hatchery-disseminated diseases Nearly 100 percent of the commercial poultry industry participates in NPIP. As a result, the industry is able to provide highly complete premises information when a disease is detected This government-industry collaborative effort supports a high degree of traceability in the commercial poultry industry.

Recommended Actions

- Establish policy and procedures to ensure the timely availability of premises information from industry maintained systems;
- Work with industry to integrate industry systems that maintain commercial poultry location with the premises registration systems; and,
- Work with the Subcommittee on Tracking and Accountability of the Committee on Live Bird Markets (part of the NPIP H5/H7 Low Pathogenic Avian Influenza Program) to determine how best to locate and obtain non-commercial poultry premises information in a disease emergency.

Sheep and Goats

Industry Size

It is estimated, as of July 2007, that there are approximately 7 7 million sheep on approximately 69,000 premises and 3.6 million goats on more than 91,000 premises.

Sheep and Goat Populations	
Sheep[1]	
Market Sheep and Lambs	3,120,000
Breeding Sheep and Lambs	4,610,000
Total	7,730,000
Goats[1]	
Angora	260,000
Dairy Goats	335,000
Meat Goats	3,000,000
Total	3,595,000
Premises	
Sheep and Lamb Operations[2]	69,090
Goats[3]	91,462

[1] *Sheep and Goats*, National Agricultural Statistics Service, July 2007
[2] *Sheep and Goats*, National Agricultural Statistics Service, 2006.
[3] *Census of Agriculture*. National Agricultural Statistics Service, 2002

Industry Structure

The U.S. sheep and goat industry is composed primarily of independent producers and is not vertically integrated.

Tracing Capabilities

Most sheep and goats can be traced back to the flock of origin due largely to industry participation in the National Scrapie Eradication Program (NSEP). An estimated 95 percent of sheep flocks, 52 percent of goat herds, and 130,000 sheep and goat premises are listed in the scrapie database. Of these, 78 percent have requested official NSEP eartags. NSEP works with industry to provide traceability for breeding sheep and cull sheep as well as many breeding goats.

Caprine and Ovine	Sector Rank		
Sector	Low	Medium	High
Dairy Goats		■	
Meat Goats	■		
Exotic Goats	■		
Purebred Sheep		■	
Commercial Sheep	■		

Opportunities to Advance Traceability

Regulation modifications and increased emphasis on enforcement could bring an estimated 90 percent of the sheep and goat industries into 90 percent compliance with NSEP requirements.

Recommended Actions

- Work with industry to achieve the cross-referencing of Flock ID numbers with standardized Premises Registration Numbers;
- Support efforts to increase compliance for existing animal identification requirements; and,
- Work with industry to develop a long-term plan to ensure the animal identification infrastructure is maintained following scrapie eradication.

Strategy 2: Harmonize Animal Identification Programs

As mentioned previously, there are now numerous government and industry programs in place—both in the United States and abroad—that use animal identification. Animal identification may be used for management purposes, marketing opportunities, and disease control. The functions and activities it supports are rapidly expanding. As the uses for animal identification continue to grow, the demand for improved, streamlined animal identification systems and technology is also increasing.

With NAIS, USDA is committed to the development of a flexible identification system that—while meeting the primary needs of animal disease traceability—may be used by the industry for other valuable opportunities. USDA will work with other Federal, State, industry, and international partners to ensure the availability of improved identification methods and compatible processes and data standards that may be used for multiple purposes. Available opportunities for improvement and standardization, both domestic and international, are discussed below in greater detail.

Domestic Programs

Breed Registries and Performance Recording Programs

Breed registry and performance recording programs present a significant opportunity to advance traceability if current identification approaches adopt the common data standards proposed in this plan. Registered and seedstock programs that provide most of the genetic base for the livestock industry require official and accurate identification. In some species, a single numbering system and identification method is preferred, while in others a combination of identifiers is used. Breed registries may use additional techniques such as DNA or tattoos to supplement national standards.

As noted in the dairy profile, the standardized use of the PIN through the administration of the National Uniform Eartagging System in DHIA would bring significant benefits to the industry. Specifically, this practice would result in having the majority of animals in DHIA identified to the birth premises or, at minimum, to the premises where the animal was first officially identified. Likewise, the use of the AIN in the breed registries of all species would help unify identification methods across many sectors of the industry.

Industry Alliances

Participation in marketing alliances is growing rapidly. Animal identification helps document the information necessary for age, source, and process-verified animals. As a higher percentage of cattle producers participate in such programs, the opportunities to capitalize on standardized and compatible systems increase.

Harmonization activities will emphasize collaboration among industry stakeholders. In addition, State and Federal animal health officials will work on shared identification issues. RFID technology, for example, has been highly utilized in marketing alliances for several years. The incorporation of the RFID AIN "840" tag with these programs will increase traceability capability with minimal, if any, additional effort or requirements of the industry.

Agricultural Marketing Service (AMS)

Many AMS verification programs require animal identification. Individual identification is required for USDA Process Verified Programs and USDA Quality System Assessment (QSA) Programs to verify the animal's age The AMS "Program Compliant" eartag is a one-time use, tamper-evident tag, which contains a non-repeatable, unique number

APHIS will work with AMS to coordinate definitions of identification requirements to provide solutions that comply with both agencies' requirements. Additionally, AMS is considering how best to incorporate the PIN standard when a location identifier is needed to support their programs.

International Collaboration

Although USDA will not select or require the use of specific technology for use with NAIS, we recognize the importance of having a basic level of standardization for animal identification. Such basic technology requirements ensure, among other things, that other countries recognize the identification technologies and/or devices used with NAIS Accordingly, the standardization of animal identification with trading partners—specifically Canada and Mexico, due to the high degree of integration with the U.S herd—is imperative to support trade.

The North American Animal Health Committee and the Emergency Management Working Group have established an Animal Identification Subcommittee to consider animal identification issues and to ensure development of a compatible system. Review of and potential standards for data elements and animal identification technologies are the primary focus. USDA also supports the use of technology standards published by the International Organization for Standardization (ISO); these standards are most important when species, such as horses, move internationally. The appropriate Species Working Groups will provide recommendations on identification and technology standards to support international movements of key animals.

World Trade

USDA actively supports the work of the World Organization for Animal Health (OIE) to develop science-based international standards for the safe trade of animals and animal products. OIE is developing generic standards with basic criteria for use when its 169 member countries are establishing or improving their animal identification programs. While animal identification programs can and should be designed and developed with all pertinent stakeholders, the OIE states that veterinary authorities in each country should provide oversight.

OIE requirements for identification in exported animals and animal products are being established and added to the *Terrestrial Animal Health Code* (Code) chapters for each of OIE's listed diseases In addition, the OIE will continue its work on the development of specific guidelines for animal identification and traceability. The Terrestrial Animal Health Standards Commission has issued draft guidelines and asked for comments from Member Countries.

Strategy 3: Converge Data Standards in Disease Programs and Regulations

USDA will take steps to adopt and apply NAIS data standards to existing disease programs, including international/interstate commerce regulations. First, USDA will proceed with finalizing the NAIS data standards in the *Code of Federal Regulations* (CFR) The utilization of the standards can then be fully practiced in the administration of disease programs. For example, national data standards that identify premises importing and exporting livestock, locations participating in official disease control programs, and origin and destination premises listed on ICVIs will greatly enhance existing animal disease tracing and emergency response capabilities.

Establishing National Data Standards

Premises Identification Number (PIN)

Use of a single premises numbering system in all animal health data systems is essential to standardize information and enhance existing disease tracing and emergency response capabilities. Since 2004, USDA has been working to establish the NAIS PIN as the standard format for location identifiers.

Premises Identification Number
A PIN is a unique, seven-digit code that includes both letters and numbers (e.g., A123R69). This format was developed for NAIS through discussions with industry and producer representatives. In addition to this PIN format, the *Code of Federal Regulations* (CFR) continues to recognize previous premises numbering systems; for example, Iowa may use IA12345 as valid premises identification. While the State herd numbering system has been used for many years, problems occur when duplicate numbers are assigned to the same location. At this time, more than 400,000 PINs using the new NAIS format have been issued.

USDA published an interim rule on November 8, 2004, in the *Federal Register* (Docket No. 04-05201 Livestock Identification; Use of Alternative Numbering Systems), recognizing the Premises Identification Number (PIN), the Animal Identification Number (AIN), and the Group/Lot Identification Number (GIN) as additional official numbering systems. The alpha characters USA and the numeric code assigned to the identification device manufacturer by the International Committee on Animal Recording were also recognized in order to avoid placing an excessive burden on producers who were already using those numbering systems for identifying their animals.

The final rule, which adopted the interim rule with several changes, was published on July 18, 2007 (Docket No. 04-052-2 Livestock Identification; Use of Alternative Number Systems), taking into account all public comments received during the comment period (which ended on January 7, 2005).

A proposed rule will detail the process for phasing out one of the commonly used premises numbering systems, the State postal code prefix followed by a number.

Animal Identification Number (AIN)—"840" Number

Identification requirements have been established for a number of existing USDA animal disease control programs, specific species, and classes of animals moving in interstate commerce Currently, AIN devices can be used to meet the official identification requirements for all animal disease programs regulated through the CFR or by the States

Animal Identification Number
The AIN contains 15 digits, with the first three being the country code. The country code for the United States is "840."

A proposed rule will detail a transition process to official use of the 840 AIN and termination of the official recognition of the USA and manufacturer coded prefixes. This rule will enhance traceability because distribution records for AIN devices are required and are then automatically linked to the standardized PIN. This provides critical and timely information to animal health officials when conducting a disease investigation.

Utilizing Standards with Disease Programs

The convergence of national data standards with disease programs will increase traceability through the following actions.

- **PIN requirement for import/export protocols.**
  APHIS is considering a regulation to require a PIN for livestock import and export movements. Utilizing the PIN for the destination premises importing livestock and the shipping facility exporting livestock will provide more complete and standardized information, thereby enhancing regulations that are already in place. Guidelines and/or regulations for the use of the PIN in health certificates and permits will be top APHIS priority.

- **PIN use in all official disease control programs.**
  Using the PIN as the standard location identifier in all official disease control programs ensures the evolution of a compatible system for locating livestock production and holding premises.

  Disease programs currently use herd and flock identification protocols that vary across programs and are not based on the standardized PIN location identifier. A key first step in increasing traceability is to use the PIN format when recording locations that participate in existing disease programs and related activities. This approach will "jump start" the integration of NAIS data standards into disease programs.

  The assignment of a standardized PIN location identifier is of significant importance to the following Federal disease control programs:
  - Bovine Tuberculosis
  - Brucellosis vaccination and testing
  - Johne's
  - Coggins testing
  - Scrapie
  - Chronic wasting disease

- **PIN use on Interstate Certificates of Veterinary Inspection.**
  The option to use the PIN for origin and destination premises on ICVIs administered by States will provide more precise location information on the animals' planned movement. Accordingly, this option will greatly improve the value of existing documentation certificates already used for interstate commerce.

Strategy 4: Integrate Automated Data Capture Technologies with Disease Programs

USDA will take steps to integrate electronic data capture and reporting technologies into existing disease programs. By using NAIS-compliant radio frequency identification (RFID) devices and integrating handheld computers/readers to replace paper-based forms, animal health officials will be able to electronically record and submit essential data to the USDA

Animal Health and Surveillance Monitoring database and other appropriate animal health databases. Where NAIS-compliant RFID devices are not used, but other official identification devices are, provisions will be made to record the identification information and electronically assist in submitting the information to appropriate animal health databases as well. The electronic collection of data will increase volume and quality, minimize data errors, and speed data entry into a searchable database.

USDA and States have begun to incorporate electronic data capture and reporting into existing programs and information systems This effort in mobile information management systems (MIMS) for field collection of animal identification data, whether chuteside with producers or at surveillance points such as harvest facilities or livestock markets, is continuing to expand because of need and success Examples include the electronic bovine tuberculosis testing system, electronic brucellosis system for vaccination and testing, electronic ICVI, and the scrapie handheld system.

Aligned with improving government performance as outlined in the President's Management Agenda of FY2002, these advancements are consistent with the goal of expanded electronic government. This migration from paper based animal health data collection systems to electronic based systems is part of an Agency-wide eGov initiative to meet this goal and is congruous with the requirements of the Government Paperwork Elimination Act.

Electronic Bovine Tuberculosis Testing System

For fiscal years 2005 and 2006, over 7,000 herds and over 250,000 cattle were tested for bovine tuberculosis in Michigan alone. Each animal was required to be individually identified and the number recorded on official tuberculosis test records. For those animals previously identified with visual only devices, each animal had to be head-restrained and the number accurately recorded from its ear tag, sometimes requiring extra effort to clean the tag of debris to be readable. If for no other reason than safety for the animals and handlers, the development of automated data capture technology to electronically read and transfer the necessary animal health information to animal health database was needed. APHIS VS has developed automated systems based upon readily available and price conscious technology such as RFID for use by Federal and State animal health officials to assist with tuberculosis testing. In the current bovine tuberculosis investigation in the State of New Mexico, in one day over 1,300 animals were test evaluated for the disease, identification and complete test form data recorded, and the data transmitted to animal health databases without ever using a pencil or pen. This tuberculosis control and eradication effort has served as a model for the development of other animal health automated data capture systems. The accuracy and efficiency of the data collection, and the seamless interaction with appropriate animal health databases, provides critical traceability information now available from APHIS VS animal health program databases.

Electronic Brucellosis System - Vaccination and Testing

Approximately 4 million beef and dairy heifers are vaccinated annually for brucellosis. In addition, for surveillance purposes, about 4 million slaughtered cattle , 3 million livestock market cattle, and 1 million cattle on farms are tested for brucellosis In all cases with the exception of slaughter surveillance, the animals are individually identified using official identification More specifically, vaccinated animals are permanently identified with an ear tattoo and by placing an official vaccination tag in the right ear. The orange brucellosis vaccination tag has, over many years, been used to easily identify vaccinates and because the animal does not have to be handled to readily recognize it has been vaccinated, it is highly valued by the industry and animal health officials The official vaccination eartags follow the format of the nine-character National Uniform Eartagging System, starting with the State prefix (two alpha characters).

With over 12 million annual observations possible through the brucellosis vaccination and testing program for cattle, automated data capture systems to upload this information into

APHIS VS animal health databases are integral for enhancing traceability information AIN eartags that incorporate RFID technology meet the requirements for official identification of brucellosis vaccinated or tested animals. If an AIN tag is used as the official identifier, the complete AIN must be recorded on the official vaccination or official testing form. As currently proposed and in development, the automated data capture system will integrate radio frequency technology with recording the identity of heifers as they are vaccinated or for animals being tested. The AIN will be captured electronically by handheld scanners. In addition, the associated information currently collected on the forms, along with the PIN, would be recorded electronically and then collectively, the information will be automatically entered into the APHIS VS Animal Health and Surveillance Management System (AHSM) database. This effort will provide the essential epidemiological information of animal identification, place, event, and point in time necessary for traceability

Electronic Interstate Certificate of Veterinary Inspection (ICVI)

Commonly known as health certificates, ICVIs are required for transporting livestock and poultry across State boundaries A copy of the document must accompany each shipment. For interstate purposes, this document is intended to inform the State of origination and the State of destination of animals officially identified that have been inspected by an accredited veterinarian and meet specific animal disease requirements for movement eligibility. Many times, the certificate of veterinary inspection is linked to other APHIS VS animal health programs such as brucellosis vaccination and testing, tuberculosis testing, and equine infectious anemia testing (EIA testing commonly known as Coggins testing), among others. It also can link to various veterinary diagnostic laboratories. As a result, this document provides useful epidemiological information needed in a traceback disease investigation. To facilitate timely transfer of this information document, APHIS VS has developed an electronic form of this document referred to as an Electronic Certificate of Veterinary Inspection (eCVI).

In the development of the eCVI, NAIS data standards regarding animal identification and premises identification have been incorporated. This is essential as this document links to multiple APHIS VS animal health databases and the ability to communicate with multiple databases is important for timely retrieval of traceability information This is even more important with the continued evolution and development of the eCVI as it applies to all livestock and poultry species in documenting eligibility for movement of animals and animal products not just a program disease associated with a particular species or livestock industry. Accredited veterinarians in 15 States currently use the eCVI having officially identified over 850,000 animals in the past 18 months. In that same time frame, a nine-fold increase in the number of accredited veterinarians using the system on a monthly basis has occurred. The eCVI has the capability of accepting 900 unique individual identification numbers electronically per form. With new improvements yet to be deployed, and planned for early 2008, it is expected that this source of valuable and integrated traceability information associated with APHIS VS animal health programs will increase exponentially.

Electronic international health certificates are also being planned for development. The importance of electronic access to traceability information associated with all import and export animals uniquely identified, along with associated premises identification numbers of destination and origination points, will be instrumental not only in global trade, but for response purposes as well.

Scrapie Handheld System

Electronic test charts for scrapie susceptibility genotyping are created in the field using official "840" RFID identification eartags, RFID readers, and tablet personal computers The electronic charts are then routed to the Animal Health and Surveillance Management (AHSM) system database and transmitted electronically to a contract laboratory for association with sample testing The results are then returned electronically to AHSM. The

electronic collection of data in the field minimizes transcription errors and ensures the timely entry of test results into the database

The National Scrapie Eradication Program also uses official RFID eartags to identify scrapie-exposed animals A software program is being developed to capture these identification numbers using a mobile system similar to the one used to upload test charts into AHSM. As a result, traceability information associated with animals at increased risk will be readily available.

Strategy 5: Partner with States, Tribes and Territories

Successful animal disease control programs are a result of well-established partnerships among Federal, and State animal health authorities, accredited veterinarians, and many other resources throughout the industries

State-Based Priorities and Traceability Plans

State/Tribe/Territory animal health authorities play a critical role in advancing national animal disease traceability. NAIS is a national effort and has Federal accountability, but it is administered by States, Tribes, and Territorities at the local level. Working in close partnership with State, Tribal, and Territorital animal health officials, USDA will continue to support the advancement of each State/Tribe/Territory's disease traceability infrastructure Each State/Tribe/Territory will administer and manage localized plans reflecting the animal health priorities in individual regions.

Cooperative Agreements

In providing Federal support for NAIS implementation activities and infrastructure within each State/Tribe/Territory, APHIS VS administers a Federal funding instrument referred to as a cooperative agreement. This differs from a grant whereby grant recipients follow Federal guidelines, but recipients are more independent in using the funds. With a cooperative agreement, both parties contribute to the successful completion of the project as outlined in the application and mutually agreed-upon work plan. Cooperative agreement awards require quarterly reporting and engagement of Federal oversight in the successful completion of the goals, objectives, and description of efforts described in the work plan Beginning with fiscal year 2008, this proposed business plan will uniquely serve as a blueprint for the development of work plans associated with NAIS implementation cooperative agreement funding.

The overall goal for NAIS implementation cooperative agreement funding will be to advance animal disease traceability This business plan will provide a uniform guideline for all applicants in prioritizing goals, objectives, and strategies in developing their cooperative agreement work plans. Each State/Tribe/Territory will be required to evaluate, describe, and identify animal disease traceability risks within their boundaries. Priorities of industry, species, or sector will be aligned with the priorities outlined in this business plan Developed work plans will describe how each applicant will reduce those risks and advance animal disease traceability within their State/Tribe/Territory. Because States/Tribes/Territories have made varying progress to date regarding NAIS implementation, this approach will allow each applicant the flexibility needed to advance animal disease traceability appropriate for each applicant. This approach in development of NAIS implementation cooperative agreement applications also builds upon previously funded efforts as the lack of premises identification and the lack of NAIS participation and use of NAIS standards in developing traceability capability are indeed traceability risks. The developed approach to reducing those traceability risks will be projected through 2011, partitioning progress goals for each year using the same strategies. By allowing States/Tribes/Territories to tailor their needs and NAIS implementation work plans in concert with this overall Federal business plan,

monitoring of performance measures and the integration of budget with that performance will be more uniformly applied to all applicants regarding Federal accountability needs.

Strategy 6: Collaborate with Industry

Active involvement and support from producer organizations and other key figures in the animal agriculture community is essential to establish a successful NAIS and advance national animal disease traceability. These groups provide a direct link to producers, offering an invaluable resource to communicate clearly about NAIS and secure the level of participation needed to make it fully functional for all industry sectors. With this in mind, USDA will pursue a variety of avenues to strengthen partnerships with industry and solicit direct feedback from producers and other key industry stakeholders as we proceed in developing NAIS.

NAIS Subcommittee and Species Working Groups

As the NAIS has progressed, the needs and comments of many individuals have shaped its development. Unique needs and preferences must be considered and addressed to make the system work well for different parts of the animal industry and also for U.S. producers who raise many different species of animals in many different environments.

Some issues can only be addressed sequentially as the NAIS is developed and more fully implemented. The Species Working Groups represent a significant, first-tier level of those individuals who will help shape the answers to many of the remaining technical and procedural issues concerning the NAIS. The groups' primary objective is to provide their species-specific knowledge and experience to address species-specific issues and further NAIS' development and implementation.

The working groups include representatives from various levels and segments of industry. Their input to NAIS' development is critical, and they contribute the species-specific, ground-level information that is necessary to create an effective system. NAIS working groups are focused on the production of cattle (beef and dairy), bison, poultry, swine, sheep, goats, deer and elk, equines, and alpacas and llamas.

The recommendations developed by the various Species Working Groups are provided to the NAIS Subcommittee, which is aligned with the Secretary's Advisory Committee on Foreign Animal and Poultry Diseases. The Subcommittee is comprised of State and industry stakeholders, with Federal staff providing program resources and administrative support. In addition to the recommendations from the Species Working Groups, the Subcommittee also accepts recommendations from State and national organizations.

The NAIS Subcommittee reviews and consolidates recommendations it receives, and in turn, reports its findings to the Secretary's Advisory Committee on Foreign Animal and Poultry Diseases. This structure for gathering input and shaping decisions provides an excellent opportunity for industry issues – including those unique to producers – to be thoroughly discussed and to have a consensus position shared with USDA.

The species working groups continue to meet and facilitate discussion on issues and solutions relative to the advancement of traceability. In developing this business plan, USDA carefully considered many of the groups' recommendations over the past several years, and this input was incorporated into the strategies described here. As USDA continues to move forward, the species working groups will continue to evaluate the strategies in use, offer input, and identify new strategies needed as the action items are successfully put in place.

Support Industry Leadership Efforts

Achieving traceability objectives requires a partnership between the production sector and animal health officials. Partnering with industry organizations enhances communication efforts as producers receive information directly from the organizations they know and respect. USDA, through cooperative agreements with industry non-profit organizations, is supporting outreach efforts and the registration of premises. The organizations, with producers' consent, assist with the completion of the premises registration form and provide it to the appropriate State animal health authority's office for processing

As of October 1, 2007, APHIS signed cooperative agreements with seven organizations:

- National Pork Board
- United States Animal Identification Organizations
- National Future Farmers of America (FFA)
- National Milk Producers Federation for IDairy
- American Angus Association

- American Sheep Industry
- Humane Farm Animal Care

Additional agreements are being reviewed at this time

Through the efforts of these organizations, a significant number of new premises are slated to be registered. The actual processing and administration of the registrations will remain the responsibility of each animal health official.

Additional partnership efforts with industry alliances, service providers, auction markets, feedlots, harvesting facilities, and other industry sectors are a priority for USDA.

Practitioners/Accredited Veterinarians

Veterinarians are often the most utilized source of information by producers. As an "on-farm/ranch" expert, they are conduits for information and serve as first responders to disease outbreaks. USDA has established an outreach program specific for accredited veterinarians. This collaboration with USDA accredited veterinarians with large animal clinics and/or practices will enable the delivery of accurate information on the NAIS to producers, breeders and animal owners who have a business need to protect the health of their animals. The knowledge of veterinarians will enhance the adoption of NAIS data standards in everyday management and disease program activities at the producer level.

In addition, USDA is developing a NAIS training module for use in the veterinary accreditation process. USDA is also including information about NAIS in all disease related training modules, as traceability is a key component of all programs.

Markets/Auctions

In order for the NAIS to enable effective traceback in the timeliest manner possible, the recording of animal identification at critical control points, such as markets/auction barns where commingling occurs, is necessary. Likewise, USDA must identify practical methods to cost-effectively record animal identification numbers at the "speed of commerce" at these locations. With these goals in mind, APHIS continues to work with market groups to address their concerns related to (1) the ability of current technology to meet the needs of all livestock markets, in particular the high volume markets; (2) the cost of the infrastructure; and (3) potential responsibility for tagging animals on arrival, since the additional handling will increase "shrink," require additional labor and administration.

Kansas State University recently released a report, available online, that outlines information about costs, opportunities, and recommendation for the implementation of the NAIS in Kansas auction markets. This report is one example of progress being made and APHIS' renewed focus and efforts to address issues for this important segment of industry.

Harvesting Facilities

As we progress toward enhanced, effective animal traceability, it is fundamental not only to know the premises of origin of animals for certain species, but also to know which animals have been terminated or removed from the population. This "bookend" approach of knowing an origination and a termination point improves our ability to determine other animal locations when conducting a traceback investigation.

An ongoing NAIS-funded project, coordinated by Colorado State University, is designed to gather input from beef, lamb, and pork processing plants and renderers concerning implementation of NAIS within their industries. Outcomes will include recommendations about how the packing and rendering industries might contribute to the needs of NAIS and may address issues of interest, including: (1) the potential complications associated with the use of injectable transponders for individual animal identification; (2) responsibility of removing those devices to avoid product contamination; (3) how to possibly deal with group/lot identification alternatives; and (4) the impact of data collection infrastructure on the speed of commerce.

Brand States

Fifteen States have brand inspection programs with either full or partial state participation. With the initiation of premises registration in late summer of 2004, many brand programs assisted NAIS implementation with promoting premises registration, and continue to do so. By virtue of their proximity to producers, brand inspection personnel have been able to provide valuable feedback regarding implementation efforts.

Microsoft Word.lnk After 2 years of work in promoting NAIS and observing NAIS implementation progress, brand inspection personnel requested an opportunity to assess mutual opportunities with NAIS staff in October 2006. A Brand State Working Group was organized to specifically define and demonstrate how official brands can best be used to support the objectives of NAIS and offer the results for consideration and inclusion in NAIS plans. The working group is also exploring cooperative efforts that might be of merit to the brand system as well. We have received valuable feedback so far and will continue working closely with brand States on NAIS issues. USDA remains committed to ensuring that NAIS capitalizes on the merits of branding and the brand systems infrastructure as the program moves forward. Brands and the brand infrastructure will continue to be a vital part of animal identification.

Strategy 7: Advance Identification Technologies

Continued advancement in traceability requires practical and affordable technological capabilities that increase the efficient and accurate collection of animal identification information. To be successful, the data collection infrastructure must operate at the "speed of commerce" and in a multitude of different environments, including harvesting facilities.

Performance Standards

Although USDA has adopted a technology-neutral position, APHIS recognizes that performance standards are necessary to ensure device compatibility across multiple platforms. Examples include ISO 11784 and 11785 for the Radio Frequency Identification of Animals. Detailed and measurable performance standards for these technologies must be clearly defined and established through stakeholder consensus. This approach ensures technologies can be successfully used beyond NAIS, including management and marketing opportunities.

The American Society for Testing and Materials (ASTM) International Committee F10 on Livestock, Meat and Poultry Evaluation Systems is organizing a task force of interested stakeholders to establish criteria for RFID performance standards. Eventually, these additional performance standards and testing protocols will be used to develop and approve NAIS-compliant devices.

Advancing Technologies

The animal health traceability infrastructure will continue to improve as market-ready technology for animal identification systems evolve. Field trials to assist industry in the evaluation of such technologies will be administered through specific NAIS-structured cooperative agreements. USDA remains cognizant of the need for animal identification and traceability needs not to interfere with the speed of commerce. By continuing to monitor current technology standards with an eye to emerging technologies, it is expected that over time the collection of necessary traceability information will become seamless and routine Issues of backward or multi-frequency compatibility, cost, and niche applications are also important By continuing to participate in stakeholder meetings of standardization interests, future solutions can be achieved.

NAIS Budget Summaries and Plans

Summary of Funds and Obligations

Available funds

From 2004 through FY 2007, $118,050,000 has been made available to USDA APHIS to implement the NAIS.

- Fiscal year (FY) 04 funding: $18.8 million from Commodity Credit Corporation (CCC) funds for implementation of the NAIS.
- FY 05 Consolidated Appropriations Act included approximately $33 million in the Animal Health Monitoring and Surveillance line item to continue into the second phase of implementation of the NAIS
- FY 06 Agriculture Appropriations Act included approximately $33 million in the Animal Health Monitoring and Surveillance line item.
- FY 07 Agriculture Appropriations Act included approximately $33 million in the Animal Health Monitoring and Surveillance line item.

Congress has stipulated that obligational authority for appropriated NAIS funding shall remain available until expended. For this reason, APHIS and its State cooperators have been able to spend conservatively as the implementation plan has developed. APHIS has been able to carry funds forward from FY 05 into FY 06 and from FY 06 into FY 07.

Funding Availability

	CCC Funds	2005 Approp	2006 Approp	2007 Est.	Total
Total Availability	$18,792	$33,197	$33,007	$33,053	$118,050

NAIS Budgets

The NAIS budgets are categorized in four primary activities:

- Information Technology
- Cooperative Agreements
- Communications and Outreach
- Program Management: Headquarters, Field Staff, materials and overhead (assessments/overhead)

The planned budgets for funds available to date are summarized in the following chart and actual obligations are presented in the following chart.

Planned Obligations

	CCC Funds	2005 Approp	2006 Approp	2007 Approp	Total	% of Budget Plan
IT Development, Maintenance, and Ops	$2,009	$6,858	$7,733	$5,224	$21,824	18.5%
Cooperative agreements	$14,357	$17,050	$13,882	$15,067	$60,355	51.1%
Communications and outreach	$2,137	$3,474	$1,940	$1,940	$9,491	8 0%

Program Management	$290	$5,815	$9,452	$10,822	$26,379	22.3%
Total	$18,793	$33,197	$33,007	$33,053	$118,050	

Obligations

As of August 30, 2007, approximately $102 million has been obligated to support the development and implementation of the NAIS A summary of accomplishments resulting from these investments is provided in this chapter

Actual Obligations as of the end of September 2007

	CCC Funds	2005 Approp	2006 Approp	2007 Current	Total	% of Budget Plan
IT Development, Maintenance, and Ops	$1,829	$4,140	$2,466	$6,260	$14,695	14.4%
Cooperative agreements	$13,666	$12,936	$5,231	$20,311	$52,144	51.2%
Communications and outreach	$2,134	$2,557	$2,422	$2,951	$10,064	9 9%
Program Management	$357	$3,948	$6,424	$14,264	$24,994	24.5%
Total	$17,987	$23,581	$16,543	$43,786	$101,896	

Utilization of Funds by Budget Category

Information Technology

USDA has utilized approximately 15 percent of the NAIS funds to the development of high caliber information systems. The program objectives have been implemented in three phases to meet the needs of each NAIS component Listed below each phase are the applications developed, maintained and supported to support that phase:

- **Phase 1: Premises identification and registration**
  - Standard Premises Registration System
  - Premises Identification Number Allocator
  - Data Management Center
- **Phase 2: Animal identification**
  - Animal Identification Number Management System
- **Phase 3: Animal tracing**
  - Animal Trace Processing System

Appendix 1 provides an overview of each NAIS system component and their interaction with other systems that support State and Federal animal health programs.

Eighty percent of the IT funds have been used to support premises registration, 14 percent for animal identification and 6 percent for the tracing component which includes interacting with the State and private Animal Tracking Databases

Cooperative Agreements

Cooperative Agreements with States and Tribes

Similar to other VS disease programs and activities, NAIS is carried out at the local level with the assistance of States and Tribes through cooperative agreements. A significant portion of NAIS funding (51 percent) has been used to administer and deliver the program through these cooperative agreements. These funds provide resources to conduct education and outreach efforts. They have also been used to administer premises registration activities and to hire Animal Identification Administrators/Coordinators. Cooperative agreement funds have also supported selected pilot projects to explore innovative methods of premises registration, animal identification, and animal tracing.

The initial projects funded by CCC supported 40 States to initiate outreach and premises registrations. Sixteen agreements utilized approximately $7 million to support pilot projects. The outcomes of these pilot projects are summarized in the document "Appendix 3" and the report is posted on the NAIS Website An additional $3 million was made available to support Field Trials and Research in late 2005

In FY 05 through FY 07, an additional $33 million in appropriations have been obligated to State/Tribe cooperative agreements to support the implementation of the NAIS. As of early October 2007 over 420,300 premises had been registered The NAIS Website is updated weekly with premises registration statistics by State.

Cooperative Agreements with Non-Profit Industry Organizations

In early 2007, USDA entered into several cooperative agreements with nonprofit industry organizations that wished to partner with USDA and the States. These cooperative agreements will support the efforts of those organizations to promote NAIS and, specifically, increase participation in premises registration – the foundation of NAIS. Approximately $9 million has been allocated to support these important collaborative efforts

Communications and Outreach

Through a combination of CCC and appropriated funds, USDA developed and implemented a multi-year, national outreach and education campaign aimed at increasing producer awareness and understanding of NAIS and promoting producer participation in premises registration – the foundation of NAIS.

Overview

USDA initiated the campaign in July 2004 with a budget of approximately $2 million. The initial phase of the campaign focused on increasing producer awareness of NAIS and encouraged producers to seek more information about NAIS from their State animal health officials and from USDA's NAIS website.

In May 2006, USDA expanded the communications effort, emphasizing the importance of premises registration and offering practical information to producers about how to participate in NAIS Central to the 2006 effort was the integration and coordination of outreach activities with State NAIS Administrators through the NAIS Community Outreach Program This program, designed to support the network of State NAIS Administrators in their efforts to promote premises registration, provided Administrators with training to hone communications skills, ensured the development and delivery of consistent information throughout all levels of the program, allowed for the dissemination of timely and accurate information, and provided ongoing opportunities to exchange best practices among State participants.

Today, the outreach and education campaign remains focused on

- Increasing premises registration totals (in line with stated USDA objectives);

- Promoting producer participation in all three components of NAIS – premises registration, animal identification, and animal tracing; and
- Returning the national debate on NAIS to animal health and emergency disease response

Continuation Plan

Research
USDA will review the existing NAIS Outreach Best Practices Audit and conduct any additional research that is needed to support the overall integrated communications strategy

Communications Plan and Campaign Implementation
The current NAIS messaging and materials focus on premises registration and include both general and species-specific brochures, topic-specific factsheets, and paid advertisements. Partner-oriented materials include a communications handbook, PowerPoint presentations, and other internal and external collateral to support partner efforts. In the coming year, USDA will develop additional materials that offer information on all three NAIS program components. These materials will be tailored to appropriate stakeholder groups, including minority and underserved producer communities. Emphasis will be placed on developing messages and materials that anticipate the opposition and stress producers' ability to tailor their participation in NAIS to meet their needs

Partnership Development
USDA will continue to develop and nurture partnerships with appropriate state, federal and industry stakeholders. USDA will work to maintain existing partnerships with CSREES/Extension and develop new partnerships with appropriate agricultural organizations, including other USDA agencies that have a vested interest in the success of NAIS. USDA will develop tactics and design and produce materials for partners' use. USDA will also maintain and grow the ongoing NAIS Community Outreach Program.

USDA plans to host another 2-day Community Outreach Partner (COP) event to build on the success of the first COP event held in October 2006. This event will provide partners with an opportunity to share ideas, network, gain training to enhance their communications and marketing efforts, and learn about current national NAIS operational and communications efforts.

Web Site Enhancement
Recent enhancements included incorporating updated program messaging, revamping the document library, and improving navigation. Moving forward, the site will be further enhanced to serve the goals and objectives of the communications effort. The web site is a critical communications tool and will continue to be a central source of current information. USDA is also exploring the development and use of a Community Outreach Partner portal. A portal will provide the Partners with a secure online location to exchange comments and recommendations, access documents and outreach materials, view and post announcements, and view a common calendar of upcoming events. This "one-stop-shop" resource will ensure information is accessible in real time, that messages and themes are consistent between regions, and that feedback can be given and received at multiple levels

Headquarter, Field Staff and Assessments

Program management carried out by APHIS Veterinary Services and assessments (departmental and agency) account for 10.2 percent and 14.3 percent, accordingly. Program management includes headquarter staff and travel and support of field staff through the regional offices.

FY07 Funds and Investments

APHIS had approximately $59.1 million available in FY 07 (includes $33 million in new funding and approximately $26.1 million in carryover funding). APHIS planned to utilize the funds to support the following activities:

- $7.9M IT Development, Maintenance and Operations
- $36 6M Cooperative Agreements and Integration with Disease Programs
  - $14.5M - State Tribe Cooperative Agreements
  - $2.1M - Field Trials (continuation of agreements)
  - $9.8M - Industry Premises Registration
  - $9M - Integration of NAIS with Disease Programs
  - $1.2M – Other
- $3 1M Outreach and Education
- $11 5M Field, Headquarters Staff and Assessments/Overhead

As of September 30, 2007 APHIS has $5 3 million in non-committed carry-over funds (summarized in the following chart).

Summary of Carry-Over Fund Commitments	
Non-obligated Balance	**$16,154**
Committed Investments	
Industry Cooperative Agreements	$4,747
1890's and Hispanic Outreach Agreements	$1,800
Integration of NAIS in MI TB eradication	$50
Ohio Depart of Ag (Ultra Band RFID Frequency Field Trial)	$398
AIN RFID Tags for Disease Programs	$2,280
Development and Implementation of Electronic Brucellosis system	$1,500
Total Commitments	**$10,775**
Balance	**$5,379**

2008 Budget Plan

In preparing the implementation plan, APHIS assumed that the budget for the voluntary National Animal Identification System (NAIS) will remain at $33 million annually The panned utilization of by category is as follows:

- $5.5M - IT Development, Maintenance and Operations
- $15.8M - Cooperative Agreements and Integration with Disease Programs
- $1.2M - Outreach and Education
- $10.5M Field, Headquarters Staff and Assessments

The following chart provides more details on the FY08 plan.

Information Technology	
Equipment	$490,000
Software	$425,000
Services	$672,000
Support Services	$3,096,000
Personnel	$831,300
Subtotal	**$5,514,300**
Cooperative Agreements	
State Tribe Implementation CA's	
Eastern Region	$5,200,000
Western Region	$9,200,000
Integration with Disease Programs & Industry	$1,400,000
Subtotal	$15,800,000
Outreach	
Legislative and Public Affairs Communication Activities	$1,200,000
Subtotal	$1,200,000
Headquarters, Field, Assessments	
HQ	$1,000,000
Regions and Field	$2,500,000
Assessments/Overhead	$7,038,300
Subtotal	$10,538,300
Total	$33,052,600

Summary of Accomplishments

NAIS Activity Summary by Component

Activity	Results/Status (October 1, 2007)
Premises Registration	419,722 registered premises (approx 30% of premises)[1]
Animal Identification	5 Approved AIN Device Manufacturers 8 Approved AIN Devices 4.5 million tags shipped ▪ 1.84 million AIN tags ▪ 2.67 million scrapie program tags
Animal Tracing	14 Organizations with Interim ATDs 16 Organizations (including some of the Interim ATDs) participating in Implementation Phase

[1] The National Agriculture Statistics Survey (NASS) estimates 1.4 million livestock farms in the United States (premises more than $1,000 in annual income). Premises with more than one species are counted one time).

Summary of NAIS Key Accomplishments

Date	Activity	Comments
Publications of Guidlines and Revisions to the Code of Federal Regulations		
November 2004	Publication of interim rule to establish the Premises Identification Number, Animal Identification Number and Group/Lot Identification Number as official numbering systems.	Final rule published July 2007.
May 2005	Published the NAIS Draft Strategic Plan	Stakeholders provided feedback, including comments on participation requirements.
May 2005	Published the NAIS Draft Program Standards for the administration of all components of the NAIS.	These initial program standards remain the catalyst to achieve a uniform system nationwide and, on occasion, are added to.
August 2005	APHIS annouced privatization of the animal tracing component and later held a public meeting to discuss options and ideas for establising animal tracking systems.	
March 2006	Publication of guidance document for the administration of AIN devices - "Administration of Official Identification Devices with the Animal Identification Number."	The AIN Management System currently stores the distribution records for over 1.8 million AIN tags and 2 7 million scrapie tags.
April 2006	Formulated the structure of State and Private Animal Tracking Databases (ATDs) to maintain animal movement records, and the Animal Trace Processing System (ATPS) to communicate with the ATDs	The process for establishing compliant ATDs achieved in mid-2007.

Date	Activity	Comments
November 22, 2006	Published Draft User Guide.	Guide replaced previous NAIS documents to clarify NAIS as a voluntary program at the Federal level. Continues to be a guidance document for producers. Version 2.0 to be published in January 2008.
February 1, 2007	Posted the NAIS Program Standards and Technical References on the NAIS web site.	Update to the initial standards published May 2005.
February 1, 2007	Published the ATD Technical Specifications	Resulted from industry cooperation through the Interim Development Phase of the ATDs.
February 2, 2007	Posted the Request for Proposals (RFP) for Cooperative Agreements with industry to support premises registration	Resulted in 7 cooperative agreements with industry to support premises registration activities.
October 15, 2007	Posted an update to the NAIS Program Standards and Technical Specifications	Inlcudes eartag specifications for sows and boars that resulted through collaboation with the swine industry.
Program Development and Implementation		
June 16, 2004	Initial Cooperative Agreements (from CCC funds) awarded to States and Tribes for the implementation of premises registration and various field trial projects.	See Appendix 3 for a summary of outcomes. The full report is of the 16 pilot projects are posted on the NAIS Website
June 25, 2004	Selected the premises registration system developed by the Wisconsin Livestock Identification Consortium as the application software to make available to States and Tribes, referred to as the Standardized Premises Registration System (SPRS).	SPRS currently used by 41 States, 12 Tribes, and 2 Territories
July 23, 2004	Deployed the Standardized Premises Registration System and trained the first State (Illinois).	On-site training provided to an additional 40 States through August 2005.
September 1, 2004	Approved the first Compliant Premises Registration System (CPRS)	9 States use 4 CPRS to register premises.
August 2005	Premises registration systems operational in 50 States.	
October 1, 2005	Deployment of AIN tags for animal disease programs (scrapie, bovine tuberculosis, chronic wasting disease).	
July 24, 2006	APHIS authorized first AIN tags from two manufacturers for general use in the NAIS.	5 AIN device manufacturers now provide 8 approved identification devices with the AIN.
July 27, 2006	USDA entered into first interim cooperative agreements with ATDs that met the minimum technical standards.	Worked through January 2007 with 14 interim ATDs to collaborate on the development of the technical specifications of the ATPS.

Date	Activity	Comments
October 31, 2006	Launched the NAIS Community Outreach Program for State and industry representatives.	Provided state and industry partners outreach tools to promote premises registration.
December 2006	Implemented Tribal Premises Registration System.	10 Tribes trained and operational on Tribal Premises Registration System.
January 30, 2007	Achieved the benchmark of 25 percent of national total of premises registered.	
March 17, 2007	Deployed the Animal Trace Processing System in a production environment to support the implementation phase of the ATDs.	Achieved the objective of having all components of NAIS operational.
August 14, 2007	Signed a cooperative agreement with Kansas State University to lead a university consortium to conduct a Benefit Cost Analysis on the NAIS	Final report expected July/August 2008.
August 2007	Approved the 8th AIN device for individual animal identification, including two ISO compliant injectable transponders.	Equine Species Working Group recommended ISO compliant RFID injectable transponders for standardization of ID methods.
October 2, 2007	Signed 6th Cooperative Agreement with industry organizations to work with States to advance premises registration	Established Industry Cooperator Working Group with participating organizations

Timelines and Outcomes

As noted in this report, advancing traceability is achieved through the implementation of several key strategies and numerous actions. The actions are being implemented through defined target dates to reflect the prioritization given to each species with a primary objective of strengthening existing programs This approach effectively uses existing infrastructure and provides more cost-effective solutions. The strategies are defined in the following chart, along with timelines for many of the established actions

Summary of Strategies and Actions

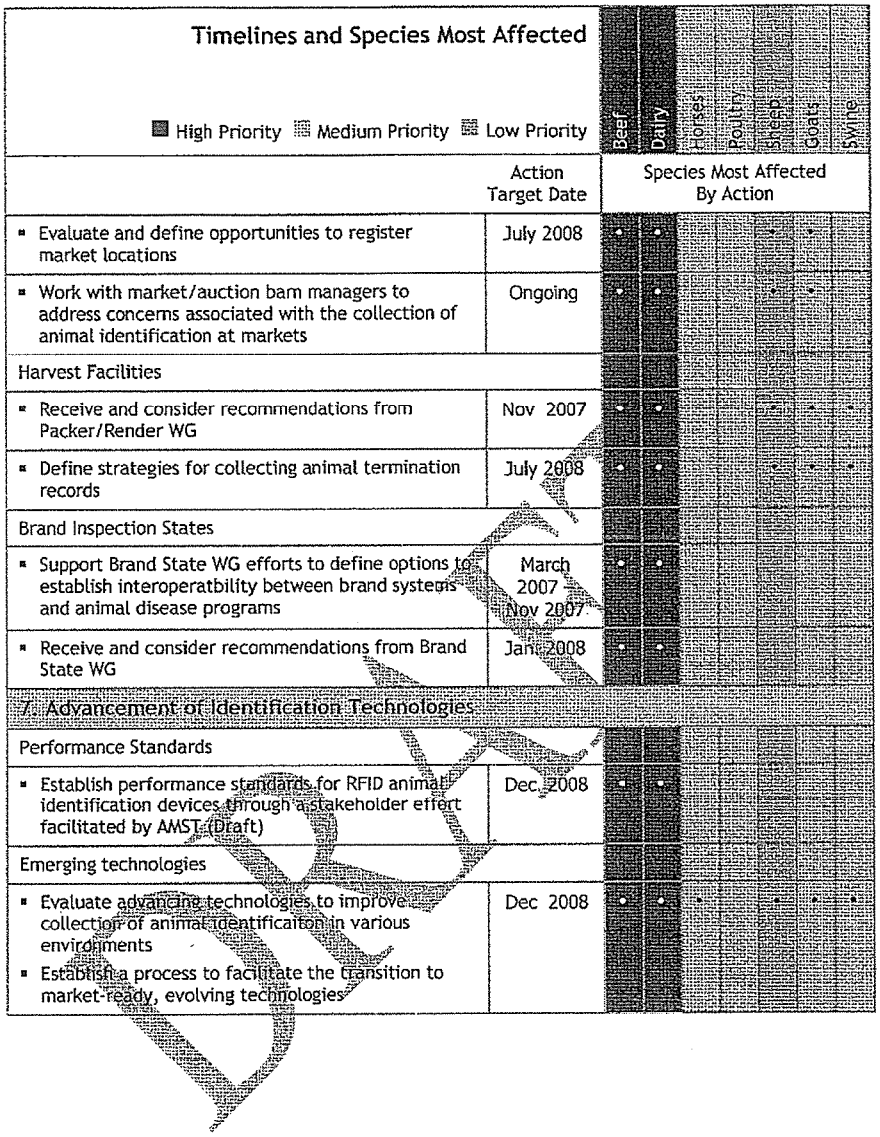
Timelines and Species Most Affected ■ High Priority ▒ Medium Priority ▒ Low Priority	Action Target Date	Species Most Affected By Action: Beef	Dairy	Horses[2]	Poultry	Sheep	Goats	Swine
1. Prioritize NAIS Implementation by Species/Sectors								
Establish Tier 1 and Tier 2 Species	Dec. 2007	•	•	·	·	·	·	·
Prioritize sectors within each species	Dec. 2007	•	•	·	·	·	·	·
Finalize species/sector traceability short-term objectives and strategies	Dec. 2007	•	•	·	·	·	·	·
2. Harmonize Animal Identification Programs								
Domestic Programs: Standardize ID requirements across Federal, State and Industry Programs and Initiatives								
▪ Breed Registries and Performance Recording Programs								
o Breed Registries - Initiate use of AIN in breed registry programs	March 2008	•	•	·	·	·	·	·
o Dairy Industry - Incorporate PIN in Dairy Herd Improvement Association's administration of the National Uniform Eartagging Numbering system	March 2009	•	•	·	·	·	·	·
▪ Industry Alliances	March 2008	•	•	·	·	·	·	·
▪ AMS - Define and utilize NAIS standards applicable to QSA programs	Oct. 2008	•	•	·	·	·	·	·
International								
▪ Unify import/export animal identfication standards and criteria	March 2009	•	•	·	·	·	·	·
3. Converge NAIS Data Standards in Disease Programs and Regulations								
Establish Uniform Data Standards								

[2] Horses: Competition horses (race and show)

Timelines and Species Most Affected

■ High Priority ▦ Medium Priority ▦ Low Priority

	Action Target Date	Species Most Affected By Action
▪ Establish the 7-character premises identification number (PIN) as the national location identifier standard (Proposed Rule)	Jan. 2009	
▪ Establish the "840" AIN as the single version for the Animal Identification Numbering system (Proposed Rule)	Jan. 2009	
Utilization of Standards with Disease Programs		
▪ Establish regulation using the PIN for all premises importing and exporting livestock	Jan 2009	
▪ Establish policy using PIN for all animal health programs	Oct. 2008	
▪ Establish policy to use PIN for origin and destination premises on the ICVI	Jan. 2009	
4. Integrate Automated Data Capture Technologies with Disease Programs		
Develop and implement electronic data collections systems for disease programs		
▪ Develop and implement Electronic Bangs Vaccination and Testing Systems	July 2008	
▪ Develop and implement expanded use of the use of the electronic TB Testing System	Jan. 2008	
▪ Develop and implement the eIVCI nationwide	Oct. 2008	
5. Partner with States, Tribes and Territories		
Ulize Traceability Business Plan as a blueprint to support work plans for FY08 cooperative agreements with States, Tribes and Territories.	Jan 2008	
▪ Continue to provide performance based cooperative agreements with States and adjust the FY08 criteria to allow flexibility to advance traceability priorities at the state/regional level.	Jan. 2008	
6. Collaborate with Industry		
NAIS Subcommittee and Species Working Groups		
▪ Receive updated reports from species working groups	Aug. 2008	
▪ Consolidate report from NAIS Subcommittee	Oct. 2008	
Support Industry Leadership Efforts		
▪ Establish premises registration cooperative agreements with non-profit industry organizations	July 07 - Dec. 08	
Accredited Veterinarians		
▪ Develop and implement communication program	Oct. 2007	
▪ Provide large-animal veterinarian accreditation training module	March 2008	
Markets/Auction Barns		



Key Outcomes

The resulting outcomes will provide increased traceability capability. The "case studies" examples and ongoing desk top exercises will be used to monitor progress being made toward the following desired outcomes The table below identifies traceability objectives, key benchmarks, and target dates for meeting those objectives by species/sector.

Species / Sector	Traceability Objectives and Target Dates		Key Benchmarks
Cattle Beef and Dairy Breeding Herds	Ability to identify 70% of breeding animals to their premises of origin	Dec. 2009	Beef: Obtain premises registration of operations that account for 70% of the beef population. Dairy: Obtain > 95% premises registration of the state licensed dairies. Obtain >90% of heifer raising operations
Equine Competitive horse industry	Ability to identify 90% of sport (competition) horses to their premises (base farm or stable operation)	Jan. 2009	Implementation of the 840 AIN RFID technology by all industry organizations that provide services to the sport (competition) horse owners/breeders.
Poultry Commercial Poultry Industry	Ability to have access to 98% of the premises commercial poultry premises information in a defined zone of a disease event in less that 48 hours of detection	March 2008	Obtain near 100% premises locations recorded and readily available through cooperative efforts of the National Poultry Improvement Plan.
Sheep and Goats Breeding flocks	Ability to identify and determine the birth premises for 90% of the breeding animals within 48 hours of a disease event	Dec. 2009	The goal of the Sheep and Goat sector is to achieve 90% of the producers assigned a flock identification number through the scrapie eradication program with all flock numbers cross referenced with a standardized PIN.
Swine Commercial swine	Ability to identify and determine the last production premises for 90% of the feeder pigs within 48 hours of a disease event	March 2009	The primary goal for the swine sector through the leadership of the National Pork Bard is to achieve 100% registration of commercial swine premises by late 2008.

Achieving optimal traceability will be most challenging for the cattle industry. The outcomes noted above for the cattle industry represent a huge incremental step in advancing traceability for this large and very diverse industry. The infrastructure resulting from these strategies will enable the cattle industry to make continued progress towards the ultimate 48-hour traceability goal.

Critical Location Points

Premises registration of locations that facilitate the marketing of animals, including ports of entry and other import/export facilities, harvest facilities are critical control points relative to successful animal disease traceability. Therefore, high participation in the premises registration component of these locations are targeted in the traceability business plan. Existing disease control programs and industry-specific initiatives can be leveraged more effectively to improve overall traceability as these locations obtain the standardized PIN to support the recording of animal movements

The following table lists several of the critical location points that are priority for premises registration. As noted, a high level of premises registration is targeted for these locations

Type of Location	Total Estimate	Goal	Date	Comments
Exhibitions and Sporting Venues				
County and State Fairs, Racetracks	2750	>90%	Sept. 2009	State, Regional and National exhibitions
Import/Export Facilities				
Import Quarantine Stations	3	100%	July 2008	Air and Sea
Export Inspection Facilities	30	100%	Oct 2008	
Ports of Entry	65	100%	Jan. 2008	35—Canada & Mexico, 27—Limited Ports
Markets & Dealers				
Public Auctions (Federal Licensed)	1400	70%	Oct 2009	
Dealers with Facilities	1988	70%	Oct. 2009	
Harvest Facilities				
Renderers (3D/4D Plants)	155	100%	July 2008	
Slaughter Plants				
• Federal Inspected	826	100%	July 2008	
• Non-federal Inspected	2116	>90%	Jan 2009	
Semen Collection and Embryo Transfer Facilities				
Commercial Units	22	100%	Oct 2008	
Custom Collection	12	100%	Jan. 2009	
Veterinary Clinics (Large Animal Practices that receive livestock)	8000	>90%	Oct. 2008	It is estimated that approximately two-thirds large animal veterinarians have clinics that receive animals
Licensed Food Waste Swine Feeding Operations	880	100%	Oct. 2008	

Conclusion

The vision and long-term goal for NAIS is 48-hour animal disease traceability. Of course, the ability of each industry segment to achieve this goal is dependent on its complexity and specific factors—for example, the size, diversity, disease status, and management systems involved. The allocation of resources as outlined in this business plan provides direction and focus as to where the greatest value for the advancement of traceability will result.

Industries will face new animal health demands as the animal agriculture industry changes and as new disease concerns arise. Technology advancements will also impact how livestock are managed, providing improved means of administering animal disease programs. Therefore, strategies to advance traceability will continue to be evaluated and adjusted to ensure that continued progress is made toward achieving the optimum goal of 48-hour traceback—in a timely, cost effective, and efficient manner

Appendix 1

VS Animal Health Information Systems

Animal Health and Surveillance Management (AHSM)

Description and Use

The AHSM is the data management system for the following VS disease surveillance, eradication, and control programs: brucellosis, tuberculosis, pseudorabies, Johne's, classical swine fever, avian influenza, chronic wasting disease, bovine spongiform encephalopathy and scrapie The AHSM is made available for States to utilize, and all States are using the AHSM for at least one program

All program-required testing, inspection and certification data can be stored in the AHSM Investigation data of infected animals and herds/flocks, related to the specified programs, are also managed in the AHSM The AHSM has three modules (program and surveillance management, subject management and incident/case management) and several tools or integrated processes (mobile computing applications, mapping, laboratory sample submission and national reporting)

The AHSM is the fourth generation information system developed for the information management of these programs; VS is currently transitioning from the third generation information system ("Generic Data Base") to AHSM Brucellosis, tuberculosis, pseudorabies, and Johne's have not yet been redeveloped in the AHSM The 1st generation system was deployed in the late 1970s

The AHSM can be used for summary data management and reporting or full detail data and program management. The system users are primarily Veterinary Services and State cooperators The system is used at the local level for operational program management and reporting, at the regional level for regional program management, and at the national level for program evaluation and analysis.

Size

The AHSM has multiple State data schemas (configurations), each storing data for up to 10 programs; program data as far back as 1977 resides in this system There are millions of records stored in this system.

Emergency Management System (EMRS)

Description and Use

The EMRS is used for recording all foreign animal disease investigations and incident management. The EMRS is also used in disease outbreak situations such as exotic Newcastle disease (END) in 2003-2004. The EMRS will be the data management system if avian influenza enters the United States. The EMRS has three modules (administration, investigation, tasking). The administration module includes deployment, check-in, check-out, and equipment tracking functions. The investigation module manages all aspects of an outbreak, including premises assessment and status, depopulation, cleaning and disinfection, appraisal, and indemnity. Several tools/processes, such as mapping and laboratory submission are also included in the EMRS.

System users are primarily Veterinary Services and State animal health officials; other users include other agency staffs assigned to an incident The system provides full incident management functionality and is used for reporting to international animal health organizations.

The EMRS is a 1st generation information system, initially deployed in 2002. An integration of EMRS and USDA's Resource Ordering and Status System (ROSS) is in the analysis phase. Additional integration/data sharing with other Federal emergency response systems is being explored.

Size

The EMRS stores all data related to foreign animal disease investigations; there are several hundred investigations per year. The database created during the END outbreak in 2003/4 contains about 90,000 premises records and 225,000 investigation records

Veterinary Services Process Streamlining (VSPS)

Description and Use

The VSPS is the data management system for VS' import, export, and interstate movement certificates, and veterinary accreditation programs All program-required movement certificate and permitting data can be stored in the VSPS. The VSPS has five modules (Import Tracking, Export Health Certification, e-Interstate, e-Veterinary Accreditation, Humane Transport), and an e-movement sub-module for the export of poultry and hatching eggs. The VSPS integrates with the User Fee System for billing services.

The VSPS is a second generation information system developed for management of federally regulated animal and animal product movement VS is currently transitioning from the 1st generation system to VSPS. Import Tracking and Export Health Certification have not yet been redeveloped in the VSPS information system. The 1st generation system was deployed in the early 1990s The integration of VSPS and the International Trade Data System (ITDS) is in the analysis phase.

The VSPS is used for all international movement certificates and accredited veterinarian program and may be used for interstate movement certificates. All federally regulated international animal and animal product movements are stored in the VSPS The system users are primarily VS (all modules), accredited veterinarians (e-Veterinary Accreditation and e-Interstate modules), state animal health officials (e-Interstate) and import/export brokers (Import Tracking and Export Health Certification). The data stored in the VSPS is used for program management, infected animal investigations, risk analysis and various reports to other federal agencies and industry groups.

Size

The VSPS stores all import and export data of VS-regulated species and commodities since 1996, accounting for hundreds of thousands of movement records representing millions of animal movements. The e-Veterinary Accreditation module manages records for approximately 60,000 private veterinarians who have been accredited for Federal work

National Animal Identification System (NAIS)

USDA has developed premises registration systems, including the Standardized Premises Registration System (SPRS), the National Premises Information Repository (NPIR), and the Premises Number Allocator In addition, APHIS has evaluated Compliant Premises Registration Systems using standardized interfaces that are maintained and operated entirely at the discretion of the State using such systems To support the animal identification component, USDA has developed the Animal Identification Number Management System (AINMS) to record the allocation of AINs to a premises

Animal movement records will be maintained in private and State Animal Tracking Databases (ATDs). USDA APHIS developed the Animal Trace Processing System (ATPS) that animal health officials will use when initiating a response to an animal health event.

The AHSM, EMRS, and VSPS are currently integrated with the NAIS, or are in the process of being integrated

National Premises Information Repository (NPIR)

Description and Use

USDA/APHIS maintains the NPIR, which became operational in mid- 2004 As noted by its name, the NPIR centralizes the data elements received from the States' premises registration systems. This enables all VS systems to efficiently and effectively integrate with one "master" data set when animal health officials need to use premises information. Each day, information from each State premises registration system is updated to the NPIR.

A real-time subset of all Premises Registration Systems is necessary to support other systems in the NAIS as well as VS' other animal health systems. For example, when a PIN is received from an Animal Tracking Database as a result of a disease investigation query, the contact information and other pertinent premises information is instantly available from NPIR The NPIR also supports the allocation of animal identification numbers (AINs) to a premises by providing AIN tag managers and resellers the ability to verify that a producer has a valid PIN before distributing AINs to that producer (a valid PIN is a perquisite of using AIN tags)

Statistics (total premises registered, premises registration by State, etc.) on premises registration are also being generated from the NPIR.

Size

States and Tribes have registered approximately 350,000 premises of the estimated 1 4 million national premises. For each record (premises registered), 12 data elements are stored on the NPIR

Standardized Premises Registration System (SPRS)

Description and Use

The SPRS is a web-based application that allows States and Tribes to register a location and assign it a nationally unique identification number or Premises Registration Number (PIN). The SPRS interfaces with the National Premises Information Repository (NPIR) through the Premises Number Allocator (Allocator) using Application Program Interface (API) calls Premises data in the SPRS is accessible only to the State or Tribe that registers that location. A subset of that data is stored in the NPIR to ensure that each location registered is assigned a unique identification number.

The SPRS is the most mature NAIS application. As it continues to be enhanced, an increasing amount of pressure is applied to the system For example, the user base for this component of the NAIS continues to grow. Almost daily, more and more users are employing the system, which requires an increase in the hours supported and the number of integrated locations. The original SPRS was adapted from an existing custom software package designed and developed for use in a single State through a federally funded cooperative agreement with the Wisconsin Livestock Identification Consortium Modifications to the database were necessary to accommodate the use of the software in over 40 States plus multiple Territories and Tribal Nations. The modifications have not been made in a consolidated fashion. In 2007, the back end data structure and service layer will be re-written to bring it into the same Java 2 Enterprise Edition (J2EE) architecture as the other Java applications owned and operated by APHIS-VS. This will improve performance, reliability, and data structures for the SPRS

The SPRS is provided at no direct cost to each State and Tribe wishing to use it States can utilize this application to support varying requirements to support premises registration in their respective States while meeting the standards established for national compatibility.

Size

USDA APHIS provides the SPRS to approximately 40 States, numerous Tribes, and 2 Territories Assuming 80 percent of the records from the NPIR will be on the SPRS when full participation is achieved, the projected total of records is expected to be approximately one million records

Compliant Premises Registration System (CPRS)

Description and Use

The CPRSs are premises registration systems that are maintained entirely by the state, including development and operational cost. The established data standards are used for premises registration, thus the systems are compatible with the national standards Additionally, the CPRSs are interfaced with the Premises Number Allocator and submit data to the NPIR

Animal Identification Number Management System (AINMS)

Description and Use

The AIN Management System (AINMS) is a web-based application used to record the allocation of Animal Identification Numbers (AINs) to approved AIN device manufacturers

AIN device manufacturers, managers, and resellers must access AINM through USDA's eAuthentication system. The eAuthentication is an identity verification system used to grant access to multiple USDA online applications.

The AINMS was developed to record the distribution information from manufacturers, managers, and resellers (1) when an AIN was allocated to a manufacturer, (2) when an AIN was imprinted on a device/tag, (3) when the AIN device/tag was shipped to a reseller or manager, and (4) when and where the AIN device/tag was shipped to a producer

Size

The number of AINs allocated as of August 1, 2007 was approximately 2 million If in the future all new animals are to be individually identified and tagged, approximately 35 million AINs may be allocated per year.

Animal Trace Processing System (ATPS)

Description and Use

USDA APHIS, through an interim/development phase, developed the ATPS that animal health officials will use when initiating a response to an animal health event. The system puts in place the communication and messaging process between the private and State animal tracking databases (ATDs) and the ATPS to ensure the animal movement information is provided to the animal health official in a timely manner. However, State and Federal animal health officials will not have direct access to the systems, thus maintaining a clear disconnect to government access to the data.

The ATPS provides the information technology platform for security, electronic data transfer, and auditing processes. Additionally, the ATPS integrates other relevant data from the animal health databases managed by APHIS Veterinary Services.

The ATPS uses a service-oriented architecture using web services to provide the communication methods with the private and State databases A monitoring/auditing

application will look at daily communications to determine, for example, if a system or systems are not responding. The monitoring/auditing application will then notify support personnel. The application will also monitor to ensure that only authorized users are accessing the system.

The ATPS will enable Federal and State animal health officials to submit requests for information to the animal tracking databases (ATDs) when investigating an animal disease events in the following situations:

- An indication (suspect, presumptive positive, etc) or confirmed positive test of a foreign animal disease;
- An animal disease emergency as determined by the Secretary of Agriculture and/or State Departments of Agriculture; or,
- A need to conduct a traceback/traceforward to determine the origin of infection for a program disease (brucellosis, tuberculosis, etc).

USDA deployed the ATPS in March 2007 and is working with private and State ATDs in the implementation phase.

Animal Tracking Databases (ATDS)

Description and Use

ATDs are external to USDA's information system architecture as aimal movement records are maintained in private and State ATDs, allowing the tracing of animal movement records from one production premises to another. The organization may use systems that maintain animal movement for purposes other than supporting the NAIS. In such cases, users of those systems may vary. Specific to the animal movement data for the NAIS, the ATPS commuicates with the ATDs through a messaging architecture. Thus, there are no direct State or Federal users on those systems. Rather, the animal health officials have access to the ATPS, and the ATDs provide the information to that system.

Producers who utilize ATDs have the option of preventing certain information about their animals, including animal movement information, from being provided to USDA. In essence, these producers may be able to impose confidentiality restrictions on their information contained in private ATDs.

Appendix 2

Case Studies - Recent Animal Disease Investigations

Cattle

Bovine Spongiform Encephalopathy (BSE)	
2003	
Incident:	The first diagnosis of BSE, a foreign animal disease, in the United States occurred on December 23, 2003.
Investigative Summary:	The case originated from a Canadian cow imported into the United States as part of a shipment of 81 cows. Of the 81 animals imported, only 29 could be definitively identified and located using producer and available animal movement records, leaving 52 animals unaccountable. 255 animals from 10 different herds were destroyed as a result of the traceback investigation. The duration of the investigation was 46 days.
Impact:	Foreign beef trade was halted immediately. Projected losses to the beef industry range from $2 billion to $4 billion. Beef trade volume in 2007 still not restored to pre-BSE levels.
2005	
Incident:	Confirmed positive of a previously inconclusive BSE sample from a 12-year-old Texas cow was made on June 24, 2005.
Investigative Summary:	Of the 200 cows associated with the index herd, 56 of those animals were untraceable. The total investigation involved 1,919 animals from 8 different herds. The duration of the investigation was 61 days.
Impact:	Continued drain on beef export potential.
2006	
Incident:	Confirmed positive of a previously inconclusive BSE sample from a 10-year-old Alabama cow was made on March 15, 2006.
Investigative Summary:	Positive cow had no tattoo, no ear tag, and no brand. Thirty-seven farms were investigated (involving the use of DNA), to potentially identify a herd of origin. Investigation took 48 days to complete. A source herd was never identified due to the lack of individual identification and associated records of animal movement.
Impact:	Inability to demonstrate to global trading partners capability of providing traceback information.

Bovine Tuberculosis	
2004	
Incident:	Tuberculosis outbreak in California dairies from May 2002 through

	June 2004
Investigative Summary:	Original herd involved 3,500 milking cows, of which 38 head were culture-positive. Animals originated from five additional States beyond CA. Depopulated in November 2002. Second herd involved 1,989 dairy cows diagnosed with tuberculosis on October 16, 2002; depopulated in March 2003. Animals were sourced from 33 States beyond CA. Third herd involved 408 animals with a diagnosis of 17 positives in December 2002; depopulated in April 2003. Source animals came from 22 States beyond CA. A fourth tuberculosis investigation in 2004 involved a dairy backgrounding facility that extended to additional facilities in AZ, NM, KS, IA, and WI.
Impact:	875,616 dairy animals from 687 herds--including all dairies in Tulare, Kings, and Fresno counties--had to be tested for tuberculosis. Approximately 13,000 animals were sacrificed to contain the disease. Quarantine of the second dairy herd cost the individual owner $70,000 per month alone in lost income. Well documented that tuberculosis is a disease of national scope. Movements across State lines should require additional testing requirements along with official individual identification.
2005-Present	
Incident:	Using slaughter surveillance from adult cow processing in Wisconsin, the index herd diagnosed with bovine tuberculosis was identified in February, 2005. Traceback to Minnesota was confirmed using animal identification combined with DNA analysis taken from backtag sample. Since then, seven herds have been identified as infected with tuberculosis and additional testing and monitoring continues in the eradication effort.
Investigative Summary:	The index herd was established in 1972, representing 33 years of effort. 585 head of commercial and registered cattle were depopulated, finding up to 25 suspect and positive animals. Four fenceline herds existed and traces went to 7 additional States. A second, 100 year-old neighboring family farm was depopulated of 352 cattle, finding lesioned 12-14 year-old cows along with a 5 year-old purchased bull with lesions. The purchased bull had previously crossed the fence to access heifers of the index herd. Herd 3 was a family farm of 307 beef cattle. Herd 4 was depopulated of 200 cows exposed from commingling. Herd 5 possessed an infected 10 year-old cow along with visible lesions in 2, 10 month-old bull calves and involved a commingled herd of 600 head owned by 3 different owners from MN and SD. Herd 6 was a small family farm of 36 head of commingled cattle. Herd 7 represented both dairy and beef cattle using purchased bulls. 5 lesioned deer were detected, all within 5 miles of the index herd.

Impact:	Chronic diseases of concern such as tuberculosis can be difficult to investigate and eradicate without maintaining long-standing records of animal movement activity. Accurate information regarding animal movement activity is key to determining the spread of disease. Without it, investigations can be prolonged, resulting in additional potential exposures and costs In this MN situation alone, $3.9M has been paid in indemnity and USDA has incurred costs exceeding $5M for investigation and heightened surveillance. Costs to producers for testing that is not yet complete is currently close to $1M and over 3,500 animals have been depopulated This MN occurrence also clearly demonstrates that small family farms are as potentially susceptible to disease outbreaks as are larger farms.
2007:	
Incident:	Tuberculosis was diagnosed in a large dairy herd of approximately 11,000 head housed on two locations in NM.
Investigative Summary:	In an ongoing investigation of just over 10 weeks in duration, epidemiologists have determined that 453 traces were necessary to trace the disease As of October 17, 2007, 96 traces remain to be completed. 20,150 animals have been tested for the disease in 16 NM herds. NAIS-approved RFID eartags are being used for unique individual identification of all animals in each of the 16 herds being evaluated. Additionally, mobile information management systems (MIMS) devices are being used to record and capture identification information electronically.
Impact:	$35M of Federal funding was allocated for indemnification to eradicate this outbreak of bovine tuberculosis Sheer size of the infected herd and potentially exposed herds has required teams of 14 State and Federal personnel rotating every 3 weeks to investigate the disease. Use of RFID and MIMS technologies in this effort has increased the accuracy of recording test information as electronic capture of identification information can be easily reconciled and transferred to official test forms. Animals can be electronically identified when loaded to accurately populate restricted movement permits and indemnity forms. More animals can be tested and accurately recorded expediting the investigation effort Additionally, animal safety and human safety in managing the animals is enhanced with electronic identification.

Bovine Brucellosis	
2007	
Incident:	On May 9, 2007, the APHIS/VS National Veterinary Services Laboratory confirmed a positive finding for bovine brucellosis associated with a beef cow from Montana The positive animal was from a herd of 200 head that were assembled in November, 2005 from a source herd in Wyoming.
Investigative Summary:	The index cow was associated in the movement of animals from the source herd. The cow aborted in December, 2005 and again late in 2006 The positive sample was not taken to diagnose the abortion, but was part of a routine disease testing requirement for a potential out-of-state buyer, even though the State of Montana was a brucellosis free State 396 head from the index herd were depopulated. Tracebacks as well as traceforwards involved approximately 900 animals 16 States were involved in this investigation.
Impact:	MT relies primarily on brand laws to trace cattle. The lack of unique individual animal identification has complicated the investigation In one situation, 2 heifers identified only by brand could have moved to 6 different locations. The lack of unique individual identification meant that 6 locations had to be involved in testing rather than 1 or 2. Another situation involved moving 2 animals that were purchased and mixed with 60 head. The additional 60 head had to be traced rather than just the 2 in question due to the lack of unique individual animal identification. As many as 6 different brands were identified on a single cow. In reviewing the records, none of the brands are connected with points in time As of October 17, 2007, 157 days have elapsed in this continuing investigation. There are 15 animal movement events that are still outstanding and may never be definitively traced due to a lack of unique individual animal identification. This investigation also clearly indicates the significant number of animals that can move in, move out, and be commingled from one herd in less than two years time The lack of animal movement information has prolonged the time and cost of the disease investigation.

Swine

Porcine Pseudorabies	
2007	
Incident:	Outbreak in Wisconsin in April 2007
Investigative Summary:	Outbreak involved high biosecurity risk swine facilities. Owner did not have written records, relying only on memory as to distribution of potentially infected animals. At least 20 other owners received animals from the index herd; several did not possess a premises identification number in a State with mandatory premises registration. Index herd owner had loaned a boar to a facility which additionally houses "Eurasian" or wild boar animals. When returned, the animal was positive for pseudorabies. Original animals obtained 6-10 years ago.
Impact:	Wisconsin is a significant pork producing State, and its status regarding pseudorabies eradication was jeopardized. Loss of status would require additional testing requirements in addition to lost marketing opportunities. Transitional swine facilities, those that maintain domestic swine with direct or indirect exposure to free-roaming swine populations, increase the risk of disease transmission as well as status of State disease programs, affecting all commercial swine facilities.

Poultry

Exotic Newcastle Disease (END)	
2002-2003	
Incident:	Outbreak of exotic Newcastle disease, a foreign animal disease of poultry, in California from September 2002 until September 2003.
Investigative Summary:	A small animal veterinarian in Los Angeles county submitted a sample from dead birds in a flock of backyard game fowl. END was confirmed on October 1, 2002. Disease spread occurred in exhibition and cockfighting flocks; eventually, positive cases also occurred in commercial facilities. Nineteen counties were quarantined in CA, NV, AZ, NM, and TX Nearly 4.5 million birds from over 2,700 infected premises were sacrificed to contain the disease; a second strain of the disease was also diagnosed in western TX. More than 85,000 premises maintaining susceptible bird populations were identified during this investigation. Up to 1,600 personnel were deployed for 350 days to respond to the outbreak. Because a majority of at-risk birds were raised in cluttered and dense environments, the detection, depopulation, cleaning, and disinfection effort were extremely resource intensive 96 percent of all operations investigated were backyard premises.
Impact:	57 countries and Guam imposed some form of trade restriction against poultry exports from the United States, with an estimated $395 million loss in direct and indirect trade Federal dollars allocated to the eradication effort were estimated at $138.9 million.

Low Pathogenic Avian Influenza (LPAI)

2007	
Incident:	On July 7, 2007, APHIS/VS National Veterinary Services Laboratory confirmed low pathogenic avian influenza in a commercial turkey farm. The sample was taken as part of an active pre-harvest serology surveillance component of the National Poultry Improvement Plan (NPIP) U. S .Avian Influenza Clean Program. The turkeys did not demonstrate any clinical signs of sickness or disease.
Investigative Summary:	Total number of turkeys on the farm was 54,000. All birds were depopulated and composted on the farm. Enhanced surveillance was implemented in a 17 county Shenandoah Valley poultry producing region. There were 5 commercial flocks within 2 miles of the index flock; 42 commercial flocks within 6 2 miles; 32 high risk contacts identified; and 34 backyard flocks within 6 miles From July 7, 2007 through August 19, 2007, 16,793 samples were subsequently tested and determined to be negative.
Impact:	On July 7, 2007, all public sales, shows, and exhibitions of live poultry throughout the State of Virginia were cancelled. Land application of poultry litter, manure, or bedding in the 17 affected counties was prohibited. Both bans were in effect through July 30, 2007. Poultry imports from VA were immediately banned in China, Cuba, Japan, Philippines, Russia, Taiwan, and Hong Kong. Poultry imports from the entire U. S. were banned immediately by India and Indonesia. Some product shipped after June 20, 2007 was destroyed and some countries did not restore trade until October 12, 2007. The proximity of several susceptible flocks, both commercial and backyard, to the index flock in this case exhibits the importance of premises identification for contacting premises owners and implementing effective and efficient disease control procedures for maintaining markets and minimizing disease impacts.

Equine

Equine Viral Arteritis (EVA)	
2006	
Incident:	Outbreak of EVA on New Mexico equine breeding facility in June 2006
Investigative Summary:	With up to 50 percent of early term abortions in broodmares, the index farm in New Mexico initially evaluated 26 blood samples for the presence of the virus; 24 were positive. Additionally, breeding stallions were positive for the virus. Within a short time, all 200 plus broodmares and all 4 stallions were positive for viral antibodies. Due to the interstate movement of resident animals, return movement of broodmares brought to the facility for breeding, and the transport of fresh and frozen semen, 18 additional States were involved in the disease investigation. Sixty-nine direct exposures were identified, with 69 5 percent associated with mares inseminated with shipped semen and 29 percent associated with mares and foals that had visited the index premises during the timeframe in question. In one destination State alone, over 591 horses from 21 different premises were quarantined.

Impact:	Multiple owners from several States were severely restricted in their ability to manage their equine operations. More importantly, the rapid spread of the virus to many States substantially increased the risk of the disease status nationally in an extremely short period of time. The use of assisted reproductive technologies, and the associated transport of semen and embryos, also was demonstrated in this case to increase the risk of animal disease transmission.

Appendix 3

NAIS Pilot Projects and Field Trials

Sixteen pilot projects were supported by Federal Commodity Credit Corporation (CCC) funds from the initial National Animal Identification System (NAIS) implementation effort in fiscal year (FY) 2004. Collectively, the 16 initial projects represented the first stage of the NAIS pilot project program. This program supports the States and Tribes, who play a lead role in the administration of NAIS, in carrying out field trials and research projects that resolve questions and concerns about NAIS processes, technologies, and costs. Approximately $6.6 million was spent to carry out these projects, representing slightly more than 50 percent of funds made available for NAIS through the CCC in FY 2004. This figure accounts for less than 6 percent of the total funding ($118 million) USDA has received for NAIS to date.

The results of these projects have significant merit with regard to NAIS implementation. Most importantly, the projects showed that animal identification and tracing can be implemented successfully in a production environment. The projects gave stakeholders "hands-on" experience using identification technologies and, as a result, delivered practical solutions for their routine use. In fact, many of the projects tested the technology in real-world scenarios, integrating animal identification and movement reporting into everyday commerce. These efforts have provided critical information and, in some cases, documented data about the day-to-day use of animal identification and tracing technology.

For example, the project results demonstrate successful advancements in automated data capture, which is essential for animal identification and tracing to function effectively in commercial production environments. Demonstrations conducted early on in the projects produced only 50-60 percent read rates (percent of animals whose identification code was recorded) when using low-frequency RFID. Project coordinators identified a variety of issues that affect the effectiveness of tags and scanners (data capture) in real-world scenarios. These include the read range of the scanner, the readability of tags, the location where the scanning takes place, and any interference from existing structures and other factors. After studying these issues and identifying practical solutions, many of the final project summaries now report read rates of 90-99 percent. This drastic improvement was a direct result of the continued evaluation, trial and error that occurred throughout the pilot projects. The initial pilot projects produced a number of valuable lessons learned and other key findings. An overview of these results is provided below.

Key lessons learned are provided in the following section. The full report is posted on the NAIS Website.

Lessons Learned

- *The retention rate of RFID button-button tags is significantly higher than anticipated.* In the Southwest pilot project, a producer with 6,000 tagged animals reported a retention rate of nearly 100 percent, compared with a 96-98 percent rate for visual tags. Other participating producers found similarly high retention rates with properly-placed RFID tags.

- *The use of RFID at the auction market can reduce the need to restrain animals when recording their individual ID numbers.* The Minnesota project concluded that RFID technology in this environment can actually improve animal and human safety.

- *Using the group/lot method of animal identification can significantly reduce a major barrier for producers to participate in NAIS.* In the Northwest region, groups of animals are often moved and managed together in situations where uniquely identifying them is virtually

impossible without causing a serious and often detrimental change in the way business is conducted. The Northwest pilot project found that group/lot animal identification mirrors the natural flow of commerce in this region. The project concluded that group/lot identification is an important option for western cattle operations, but also acknowledged that individual identification is necessary if animals are commingled with cattle from other premises.

- *RFID technology is not a "plug-and-play" application and must be customized to individual locations—the needs of which vary tremendously.* In the Texas pilot project, the sites chosen for testing were often ill-suited for immediate installation of equipment and required a time-intensive process of site surveys and collaboration with facility owners to prevent any interference with the natural flow of commerce. Several facilities in the Southwest pilot project also required modifications (i.e., retrofitting existing facilities) to resolve interference problems with the panel readers. Overall, the majority of projects reported that the RFID/reader technology required careful setup, calibration, modification, and use.

- *Proper tag application and placement has a direct and significant impact on the retention and readability of the tags.* The Kentucky pilot project shows that RFID ear tag application and placement alone can account for as much as 40 percent of the variation in read rates and retention.

- *In certain environments, the automated recording of animals' identification as they are loaded onto and off-loaded from trucks is critical for successful animal tracing.* While RFID technology is promising to achieve this goal, the Kansas pilot project found that improvements and advancements in the technology are still needed to make the "on-board" RFID systems more rugged. The project found that the available hardware/software needs to be refined to require less human intervention. In addition, it is important for service providers to be fully integrated (share information across systems), to ensure that checks and balances can be programmed as needed in the transportation environment.

- *Animal identification number (AIN) radio frequency (RF) eartags used for NAIS can also support value-added opportunities.* Florida's pilot project demonstrated the market-driven benefits of electronic animal identification and tracing. In one segment of the project, 6,500 individually identified cattle qualified as source-verified beef and yielded monetary premiums (totaling $56,000) during an industry-sponsored heifer sale. In another segment of the project, the Seminole Tribe also realized market-driven benefits when calves with electronic identification garnered premium amounts in a video auction sale.

- *Information collection for NAIS can be achieved effectively through programs producers are already engaged in for management and/or marketing.* For example, the Pennsylvania project built upon the existing infrastructure of the national Dairy Herd Improvement (DHI) program. The DHI system proved to be an effective partner in collecting data for NAIS data collection, and did so in a producer-friendly manner by using systems already in place and utilized by many producers. The Northwest Pilot Project also found that producers are most eager to participate in animal identification and tracing when existing systems are utilized for data collection.

- *Producers' access to technology—or lack thereof—is a key factor impacting participation in animal identification and tracing systems.* The Southeastern Network Pilot Project found that only approximately 15 percent of producers involved in the project had internet access and used e-mail. The Northwest Pilot Project also found that many producers do not have convenient access to technology, or were not comfortable using the technology. Results from both projects highlight the need for non-electronic data collection methods requiring minimal action on the part of producers.

- *Buy-in for animal identification and tracing must extend beyond producers to include others involved in the production chain.* In several projects, data collection was hindered because individuals in key industry segments (i.e., auction markets, slaughter facilities, and commercial

transporters) lacked understanding of the technology and basic procedures involved with animal identification and tracing systems. During the Minnesota pilot project, the participating slaughter facility did not report equipment failures to State officials or manufacturers because the problems did not interfere with the facility's own operations. Such results demonstrate that outreach, education, and market incentives will be especially important within these groups to achieve the animal tracing goals of NAIS

- *The cost-effectiveness of LF-RFID must be evaluated according to species.* The Montana pilot project found that individually identifying all animals in a sheep production system would be too expensive unless it could create value-added benefits. A subsequent project is now being conducted to evaluate the potential use of group lot ID systems within sheep marketing channels.

- *Participants at all levels of production need to be well-informed about basic procedural matters related to animal identification.* The North Dakota CalfAID project found that facility owners were often unaware of the purpose of the project's RFID tags. As a result of the common practice at feedlots and other such facilities to remove all eartags from animals upon arrival, the potential outcomes of the project were lost. It will be especially important to educate the entire industry about animal identification practices to prevent the removal of official identification devices.

- *Workable options are available for producers who want to identify their animals electronically without the added expense of reader equipment.* Producers in the Northwest pilot project found value in using "matched set pairs" of eartags. A group/lot visual tag was used for day-to-day management purposes and then matched with an individual RFID tag number—without the use of an RFID reader or software—when the animal moved off the premises. The project also determined that this method can work well with other related management and marketing programs, such as process-, age-, and source-verification.

- *The level of training equipment operators receive directly impacts data collection and, ultimately, the system's success.* In the Oklahoma project, employees at most locations were either unprepared or unwilling to properly operate computer equipment, resulting in poor data capture rates. However, the South Dakota project reported that equipment performance improved with operator training and experience. In fact, all facilities in this project experienced improved read rates as employees became more familiar with the equipment.

- *The use of electronic identification allows for more accurate and efficient recordkeeping.* During the Southwest pilot project, many producers who were exposed to RFID technology for the first time reported a significant reduction in data entry errors. It was also reported that the use of the technology enhanced business practices and, as a result, reduced labor costs.

- *Calves can be tagged successfully with RFID devices at a very young age.* In the Tri-National project (Arizona), dairy calves from 3 to 5 days old were tagged upon arrival at a participating calf ranch and then shipped to a feedlot at 6 to 8 weeks of age. The project reported acceptable tag retention rates.

- *Effective, producer-focused outreach and education is critical to the success of an animal identification system.* The Texas pilot project reported that the biggest challenge in implementing animal identification was not the technology itself, but rather the attitudes among livestock owners towards the technology. State and industry outreach efforts were able to address many common misconceptions about the capabilities of RFID technology and foster participation in the project. Explaining the need for and value of animal identification, with a specific focus on how identification devices can add value to livestock, was particularly effective in garnering producer support.

Appendix 4

Acronyms

AHO – Animal Health Official
AHSM – Animal Health Surveillance and Management
AINMS – Animal Identification Number Management System
AIN – Animal Identification Number
AMS – Agricultural Marketing Service
APHIS – Animal and Plant Health Inspection Service
ASTM – American Society for Testing and Materials
ATD – Animal Tracking Database
ATPS – Animal Trace Processing System
CA – Cooperative Agreement
CCC – Commodity Credit Corporation
CFR – Code of Federal Regulations
COP – Community Outreach Program
CPRS – Compliant Premises Registration System
CSREES – Cooperative State Research, Education, and Extension Service
CWD – Chronic Wasting Disease
DHIA – Dairy Herd Improvement Association
eCVI – Electronic Certificates of Veterinary Inspection
EIA – Equine Infectious Anemia
EMRS – Emergency Management Response System
FFA – National Future Farmers of America
FY – Fiscal Year
GIN – Group/Lot Identification Number
HQ – Headquarters
ICVI – Interstate Certificates of Veterinary Inspection
ISO – International Organization for Standardization
IT – Information Technology
NAHMS – National Animal Health Monitoring and Surveillance
NAIS – National Animal Identification System
NASS – National Agricultural Statistics Service
NPIP – National Poultry Improvement Plan
NPIR – National Premises Information Repository
NSEP – National Scrapie Eradication Program
NVSL – National Veterinary Services Laboratory
OIE – World Organization for Animal Health
PIN – Premises Identification Number
QSA – Quality System Assessment
RFID – Radio Frequency Identification
SPRS – Standardized Premises Registration System
TB - Tuberculosis
USDA – United States Department of Agriculture
VS – Veterinary Services
VSPS – Veterinary Services Process Streamlining
WG – Working Group

06-9xxx-xxxx-CA

INTERIM COOPERATIVE AGREEMENT

BETWEEN

INSERT COOPERATING ORGANIZATION'S NAME

AND THE

UNITED STATES DEPARTMENT OF AGRICULTURE ANIMAL AND PLANT HEALTH INSPECTION SERVICE VETERINARY SERVICES

FOR

- Interim/Development Phase -
Integration of Private and State Animal Tracking Databases (ATD) with the National Animal Identification System (NAIS)

This Interim Cooperative Agreement (ICA) is between the Animal and Plant Health Inspection Service, Veterinary Services, United States Department of Agriculture (USDA), hereinafter referred to as "APHIS" and *Name of Organization*, hereinafter referred to as the "Organization."

ARTICLE 1 – PURPOSE

The purpose of this ICA is to facilitate the deployment of an information technology infrastructure that will enable animal health officials to access animal identification, tracking, and movement data from data sets other than those maintained by the Federal government as necessary to support animal disease control and eradication programs of pests or diseases to protect cattle and bison, cervids (e.g., deer and elk); goats; horses; camelids (e.g., llamas and alpacas); poultry; sheep; and swine in the United States. This agreement assists in implementing an interim/development phase to enable private organizations and States with systems that meet minimum requirements to participate in the development of the infrastructure for the timely advancement of the National Animal Identification System (NAIS).

ARTICLE 2 - BACKGROUND

As part of its ongoing efforts to safeguard U.S. animal health, USDA initiated the implementation of the NAIS in 2004. The NAIS is a voluntary cooperative State-Federal-industry program administered by USDA's APHIS. The main objective of the NAIS is to develop and implement a comprehensive information system, which will support ongoing animal disease programs with the goal of enabling State and Federal

animal health officials with the capability to identify all animals and premises that could have been exposed to a pest or disease agent of concern within 48 hours after initial discovery. The animal movement tracking information will be managed by the private sector and States and participants can test the system and offer feedback to help ensure that practical solutions evolve.

ARTICLE 3 - AUTHORITIES

The Animal Health Protection Act (AHPA) authorizes the Secretary of Agriculture (and thereafter as delegated to APHIS) to carry out operations and measures to control or eradicate any pest or disease of livestock (7 U.S.C. 8308). Section 10411 of the AHPA, 7 U.S.C. 8310, authorizes the Secretary to cooperate with other Federal agencies, States or political subdivisions of States, national or local governments of foreign countries, domestic or international organizations or associations, Indian Tribes, and other persons. Additionally, the Secretary is authorized, pursuant to 7 U.S.C. 2279g, to use cooperative agreements to reflect a relationship with a cooperator to carry out programs to protect the nation's animal and plant resources. In Title 9 of the *Code of Federal Regulations*, parts 1 to 199, are the APHIS disease control program regulations which have requirements for the identification, under certain circumstances, of specified animals.

ARTICLE 4 - MUTUAL ACKNOWLEDGMENTS

The Organization and APHIS acknowledge that complete, accurate, and timely animal tracking/movement information is needed to support animal disease management programs and will work collaboratively to support the successful integration of private and State animal tracking databases into the NAIS. The parties to this ICA acknowledge that the focus of the NAIS is to support animal disease management programs administered by APHIS and carried out cooperatively with States. The parties also acknowledge that the Animal Trace Processing System (ATPS) will be utilized by both Federal and State animal health officials to submit queries to the Animal Tracking Databases (ATDs) when necessary to control or eradicate disease. The parties to this ICA acknowledge that full utilization of the ATDs during a foreign animal disease outbreak or other emergency situation is necessary; however, the Organization and APHIS will cooperate in the development and definition of a metric for managing the use of the system to facilitate surveillance for domestic or emerging animal diseases during this interim phase. The parties further acknowledge that the purpose of, and information maintained by, the Organization's information system may exceed the criteria of the NAIS, since such information and related programs are specific to that of the Organization.

ARTICLE 5 - APHIS RESPONSIBILITIES

APHIS is responsible for development, supervision, and maintenance of the ATPS to support the integration of multiple animal tracking databases and will:

1. Establish, maintain, and update the data requirements and system specifications required of databases for participation in this interim phase of developing private and State ATDs that support the NAIS;
2. Evaluate the information systems of the Organization to ensure that they maintain

compliance with the minimum criteria for participation;
3. Post and update the names of each Organization that meets the defined minimum criteria and is participating in this interim/development phase;
4. Conduct defined test exercises periodically with participating Organizations;
5. Provide the Organization tested with the results of test exercises; and
6. Submit query requests to the Organization when one of the following animal health issues occurs:
   a. A confirmed positive test for a foreign animal disease;
   b. An animal disease emergency as determined by the Secretary of Agriculture and/or State Departments of Agriculture;
   c. The need to conduct a traceback/traceforward to determine the origin of infection for a program disease (brucellosis, tuberculosis, etc.).

ARTICLE 6 – ORGANIZATION RESPONSIBILITIES

The Organization will maintain an information system that will provide the traceback and trace forward information for animal health officials to manage the animal disease programs. Any Organization having an ATD that meets the minimum criteria of this interim/development phase and elects to participate in this interim phase agrees to:

1. Implement and maintain its system in accordance with all the required specifications defined in the document, "Integration of Private and State Animal Tracking Databases – Interim Phase;"
2. Submit data electronically to the ATPS in accordance with APHIS protocols;
3. Participate in test exercises when requested by APHIS, and, without charge to APHIS, provide APHIS with statistics and other related information as requested periodically on the number of records maintained in its system to enable APHIS to determine national participation in and other information regarding the NAIS;
4. Process queries and supply data for animal identification and movement data, when needed to control or eradicate a disease, to APHIS in accordance with APHIS protocols and without any charge to APHIS for all such actions;
5. Transfer, without requiring any compensation for such transfer, all of its data as defined in Table 1 of the Integration of Private and State Animal Tracking Databases necessary for control or eradication of disease to any other participating organization having an ATD that meets the minimum criteria of this interim phase, in the event that the organization for whatever reason dissolves itself, ceases to operate or conduct business, and/or entirely discontinues its involvement in providing information systems, ATD, or any other activity directly related to the information technology infrastructure being developed to obtain animal identification, tracking and movement data;
6. Authorize APHIS, and others authorized by APHIS, to use the data submitted by the Organization for Federal government purposes free of charge; and
7. Acknowledge that it is responsible for ensuring that it has the legal right and authority to submit its data to APHIS and other authorized users when necessary to control or eradicate a disease, and that, to the best of its knowledge, its data and information system do not infringe any patent, copyright, or other proprietary right of any third party.

ARTICLE 7 - STATEMENT OF NO FINANCIAL OBLIGATION

Each signatory party is to use and manage its own funds in carrying out the purpose of this ICA.

ARTICLE 8 - LIMITATIONS OF COMMITMENT

Participation in this interim phase and ICA does not guarantee that the Organization's system will meet the requirements that define a NAIS Compliant Animal Tracking Database as the system evolves. The Organization agrees to confirm that their participation in this interim phase is as an "Interim ATD Participant" in the NAIS and that they will not promote or imply that their system is a NAIS Compliant ATD. The Organization, as a result of participating in this interim phase and ICA, is not obligated to provide a "NAIS Compliant Animal Tracking Database." APHIS will publish a list of ATD providers that are operating under an ICA for the interim phase.

APHIS' participation in this ICA and any continuation or extension by APHIS thereof shall be contingent upon the availability of funds appropriated by the Congress of the United States. It is understood and agreed that any monies allocated for purposes covered by this ICA shall be expended in accordance with its terms and the manner prescribed by the fiscal regulations and/or administrative policies of the party making the funds available.

APHIS does not warrant that the Organization's participation in the program will not infringe any patents, copyrights, or other intellectual property. APHIS does not authorize or consent to any such infringement, and does not indemnify the Organization against liability for any such infringement. APHIS will not be liable to the Organization or to any third party for any such infringement.

ARTICLE 9 - CONGRESSIONAL RESTRICTION

Pursuant to 41 U.S.C. 22, no member of, or delegate to, Congress shall be admitted to any share or part of the ICA or to any benefit to arise therefrom.

ARTICLE 10 - AMENDMENTS

This ICA may be amended at any time by mutual agreement of the parties in writing.

ARTICLE 11 - TERMINATION

This ICA may be terminated by either party upon sixty (60) days written notice to the other party.

ARTICLE 12 - ENTIRETY OF THE AGREEMENT

This Agreement sets forth the entire agreement and understanding between the parties, and the parties agree that any other prior or contemporaneous representations or understandings not explicitly contained in this ICA, whether written or oral, have no legal or equitable value, force, or effect.

ARTICLE 13 - EFFECTIVE DATE AND DURATION

Once signed by the respective signatories, this ICA will be in effect through September 30, 2006, and can be renewed annually thereafter on a fiscal year basis.

Insert Organization's Name

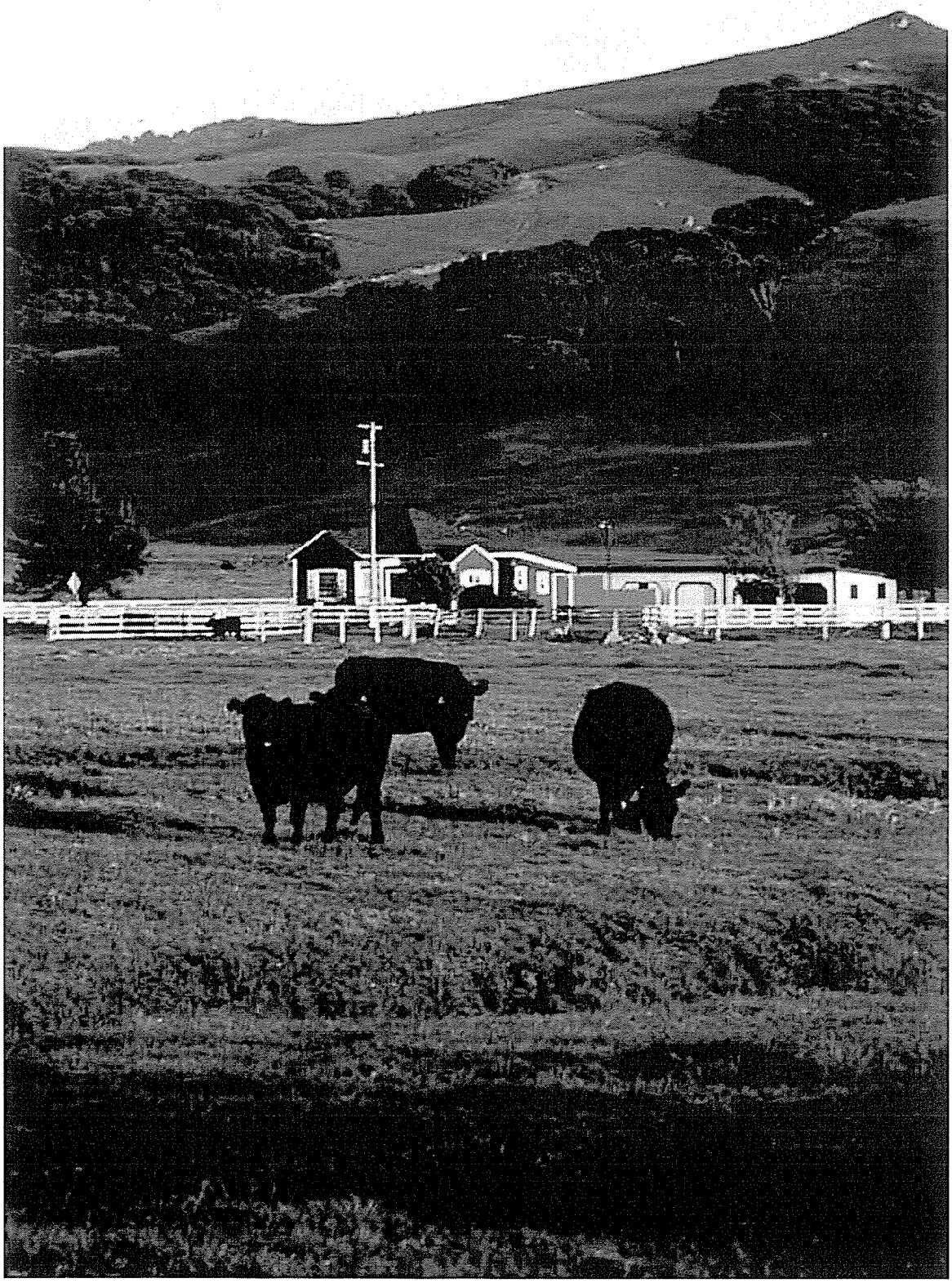
_____ Date:_____
Insert Name and Title of signatory for the Organization

ANIMAL AND PLANT HEALTH INSPECTION SERVICE
VETERINARY SERVICES

_____ Date:_____
Dr. John Clifford, Deputy Administrator, APHIS, VS

Table of Contents

Table of Contents



Thank you for your interest in the National Animal Identification System (NAIS).

Improving our ability to rapidly trace, control, and eradicate animal disease makes it imperative that practicing veterinarians understand and participate in NAIS. Your position on the front lines of animal health makes you a key player in communicating the importance of NAIS and encouraging client participation.

With your help, animal agriculture has made significant strides in reducing disease in livestock, poultry, and horses. But we cannot drop our guard. Reduced participation in disease programs, increased interstate and foreign movement of animals and germplasm, and key differences in the way species are managed are just a few of the factors that make disease control an ongoing challenge. NAIS is designed to improve the identification of animals and premises in an ongoing effort to modernize disease control.

The U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS) has created this Toolkit to help veterinarians:

- Identify opportunities to use NAIS,
- Incorporate NAIS into existing State/Federal cooperative animal disease programs, and
- Educate livestock producers and animal owners about the three components of NAIS—including how to improve animal disease traceability.

In addition, this Toolkit provides basic NAIS information and ideas on how to discuss the program with clients.

As always, thank you for the work you do in safeguarding U.S. animal agriculture. We look forward to your continued assistance as we move forward with NAIS.

Dr. John Clifford
Chief Veterinary Officer
United States Department of Agriculture
Animal and Plant Health Inspection Service
Veterinary Services

Getting Started

The National Animal Identification System offers a number of opportunities for accredited veterinarians to participate—as an animal health advocate, as a trusted source for up-to-date information and advice, and as a pioneer in the use of modern technologies that enhance the United States' ability to respond to animal diseases.

This Toolkit is comprised of two sections:

Information for You

- Introduction to NAIS:
  Find out why NAIS is necessary and how it benefits participants.
- How NAIS Works:
  Learn about the three components of NAIS—premises registration, animal identification, and animal tracing—and the role you can play in each.

Tools You Can Use

- Scenarios: Use the time you spend with your clients to explain why NAIS participation is critical to disease preparedness.
- NAIS Materials: Deliver basic NAIS information to your clients using simple background materials.

This Toolkit will prepare you to:

- Discuss NAIS with livestock producers and animal owners on farm visits, in your clinic, or at meetings. You can take advantage of the time you spend with your clients to explain why their participation is critical to disease preparedness.
- Incorporate NAIS into your daily practice. Learn how to assist clients in obtaining a premises identification number or serve as a manager/reseller of NAIS-approved animal identification devices/tags.
- Identify opportunities to use NAIS to improve the United States' ability to respond to animal diseases and to support marketing and value-added programs.

Introduction to NAIS

NAIS is a State-Federal-Industry partnership designed to

- Increase the United States' animal disease response capabilities
- Limit the spread of animal diseases
- Minimize animal losses and economic impact associated with disease outbreaks
- Protect producers' livelihoods
- Maintain market access

USDA's Animal and Plant Health Inspection Service (APHIS) introduced NAIS in 2004 to enhance the United States' capability to minimize the spread of foreign and domestic animal diseases of concern by implementing a modern, streamlined information system. Participation is voluntary at the Federal level.

While many States have information systems in place to locate at-risk animals and premises during a disease outbreak, they are not connected nationally nor do they collect consistent information. NAIS standards provide a uniform system for officially identifying multiple animal species so that producers and animal health officials can respond quickly and effectively to animal health events in the United States.

Historically, official animal identification has been incorporated into Federal and State animal health programs for the control and eradication of diseases such as brucellosis, pseudorabies, and tuberculosis. As the prevalence of these diseases has decreased, so has the use of USDA-issued cartags and other forms of unique, individual animal identification. As a result, fewer of the Nation's animals are identified, leaving a void in standardized, official animal identification and decreasing the United States' ability to investigate animal disease incidence and exposure.

The Need for NAIS

From 2002 to 2006, an average of 4.1 million vaccinated heifers were tagged each year with official USDA-issued eartags as part of the bovine brucellosis eradication program. This represents an estimated 25 to 27 percent of eligible breeding cattle annually during that timeframe. In comparison, there were 9.2 million heifers vaccinated in 1992. This is a 55 percent decline in the number of heifers officially identified with the orange metal brucellosis vaccination tags.

In 2006, the estimated 10-year-old beef cow that was diagnosed with bovine spongiform encephalopathy (BSE) in Alabama did not possess an eartag, a tattoo, or a brand. Efforts to associate the animal with potential source herds via DNA analysis were also unsuccessful. In all, State and Federal animal health officials investigated 37 farms based upon all available information, and none could be definitively identified as the source of the animal in question.

Source: USDA Alabama BSE Investigation
Final Epidemiology Report, May 2, 2006, available at:
http://www.aphis.usda.gov/newsroom/hot_issues/bse/downloads/EPI_Final5-2-06.pdf

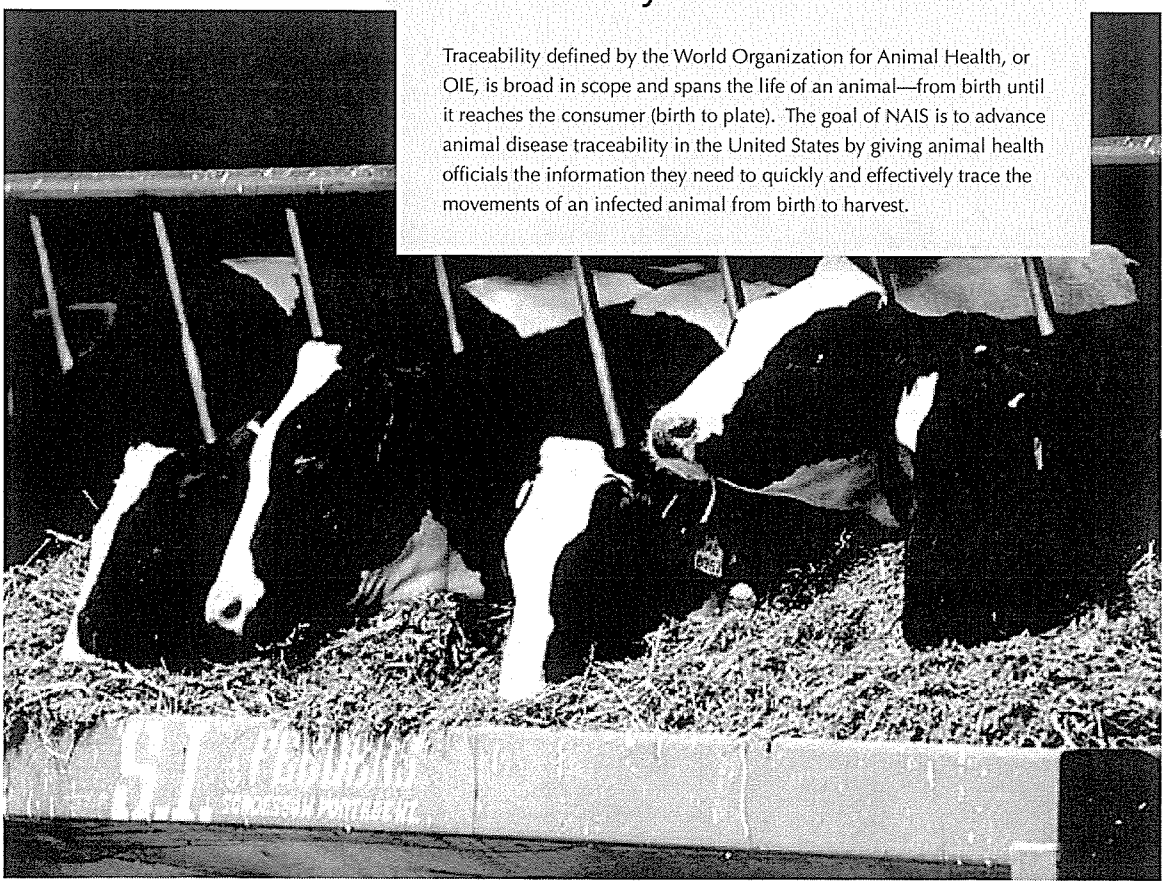
Benefit of NAIS

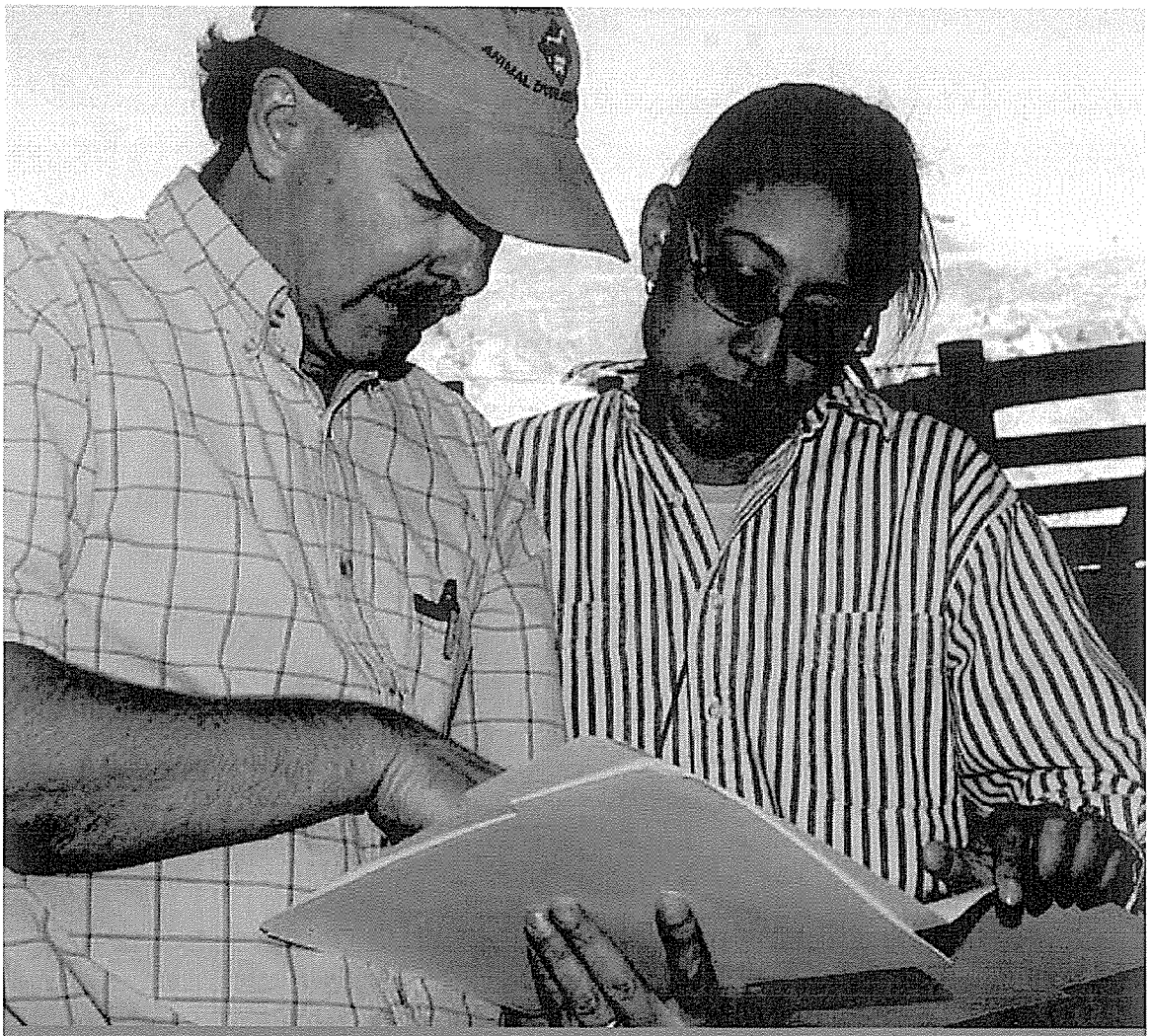
Rapid response has a number of economic benefits. Any producer whose premises has been impacted by disease can attest to the serious losses and hardships that result—loss of animals and livelihoods, the labor and time involved with eradication, decreased incomes, lost jobs, and sometimes the loss of irreplaceable breeding stock/ bloodlines. The quicker and more effectively a disease is contained, the less chance it has to spread to additional premises, including those of your clients. When fewer producers are affected by disease, the economic strain is reduced. NAIS offers the ability to quickly generate detailed data showing the scope of a disease outbreak. The ability to accurately show which regions of the country are and are not affected by a disease outbreak (sometimes called compartmentalization or regionalization) is a valuable tool that can be used to prevent widespread market and animal export closures.

NAIS also has the ability to bring economic benefits to the U.S. economy as a whole by facilitating rapid response. Rapid response depends upon animal disease **traceability**.

Traceability

Traceability defined by the World Organization for Animal Health, or OIE, is broad in scope and spans the life of an animal—from birth until it reaches the consumer (birth to plate). The goal of NAIS is to advance animal disease traceability in the United States by giving animal health officials the information they need to quickly and effectively trace the movements of an infected animal from birth to harvest.





The Need for NAIS

From October 2005 through August 2007, the timeframe to trace back 27 bovine tuberculosis cases discovered during routine harvest surveillance averaged 199 days (start to finish). The sooner animal health officials can identify the specific locations of affected animals and determine their movement history, the sooner affected and possibly exposed animals can be tested and the traceback completed.

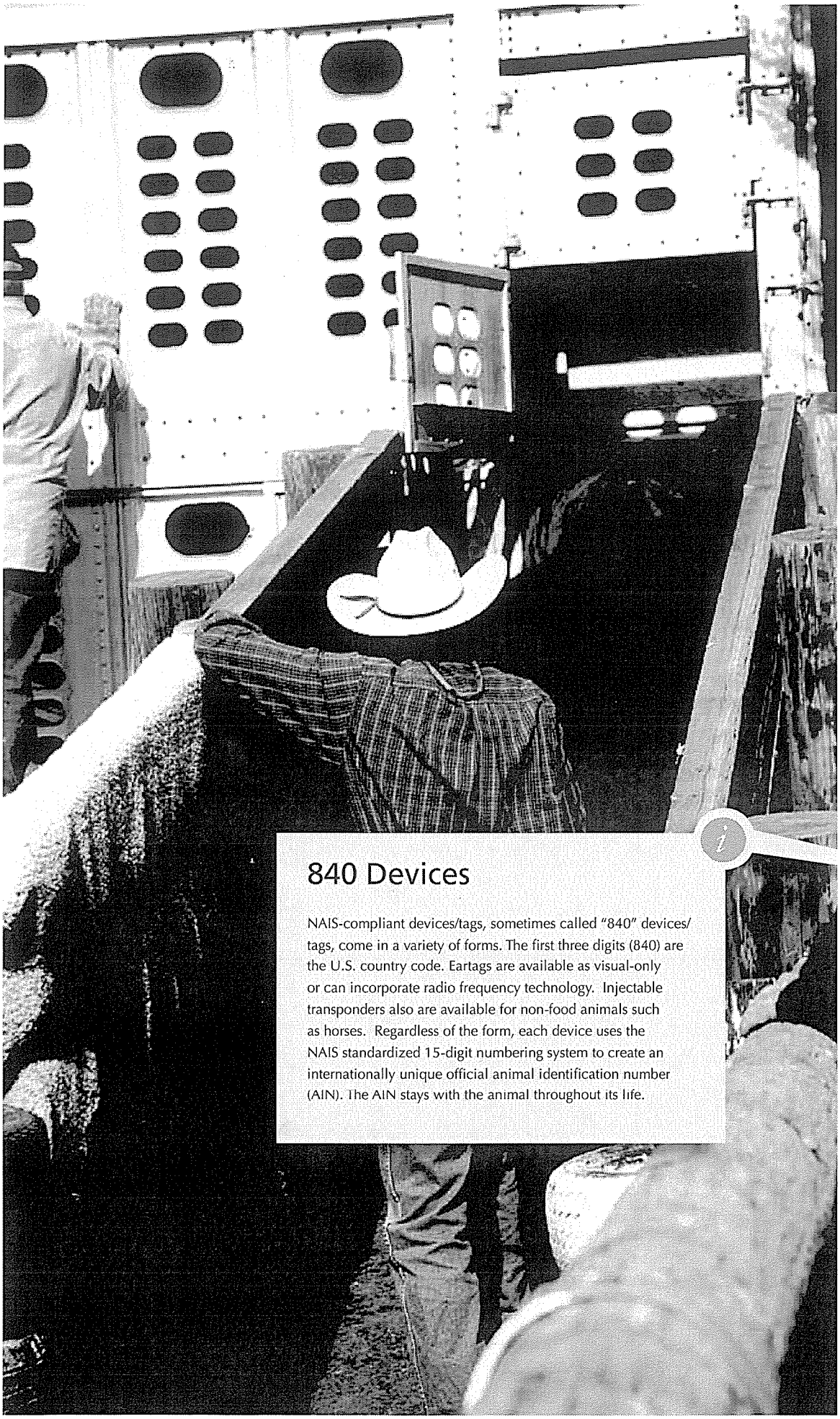
The 10-month effort to eradicate exotic Newcastle disease in 2002 through 2003 cost nearly $400 million by the time direct and indirect costs were calculated. This included nearly $1 million lost income per week due to export sanctions. Reducing the time it takes to eradicate a disease by several months—or even several weeks—can save millions of dollars in costs for producers, veterinarians, the Government, and consumers.

Maintaining Domestic and Foreign Markets

Many of our international trading partners have implemented some form of official identification for their production facilities and animals, and they require the same of their trading partners. NAIS allows U.S. producers to share that advantage in the marketplace. Although your clients might not engage directly in international marketing, the prices garnered for U.S. livestock through trade negotiations directly influence domestic livestock prices.

Becoming a part of NAIS is beneficial from the standpoint of retaining domestic and international market status, particularly in the face of an outbreak. A single report of disease can shut down consumer demand for U.S. products. In 2003, when the United States diagnosed its first case of BSE from an imported cow, foreign beef trade dropped 80 percent. To try and regain access to foreign markets, USDA put in place enhanced BSE surveillance at a cost of approximately $189 million. To maintain and protect prices for domestic commodities, it is crucial for international markets to stay open.

The United States is fortunate to be free of many diseases faced by livestock producers in other parts of the world. Your clients might feel they have a very healthy herd, and signing up for NAIS might not seem that important. In today's market, however, the ability to prove negative status of our Nation's animals to our trading partners via surveillance becomes important. A single rumor of a foreign animal disease has caused markets to plummet in the past, due in part to the potential far-reaching consequences it could have on international trade. Having the ability to quickly define which regions of our country are—and are not—affected by an outbreak (compartmentalization) is another important reason to participate in NAIS.



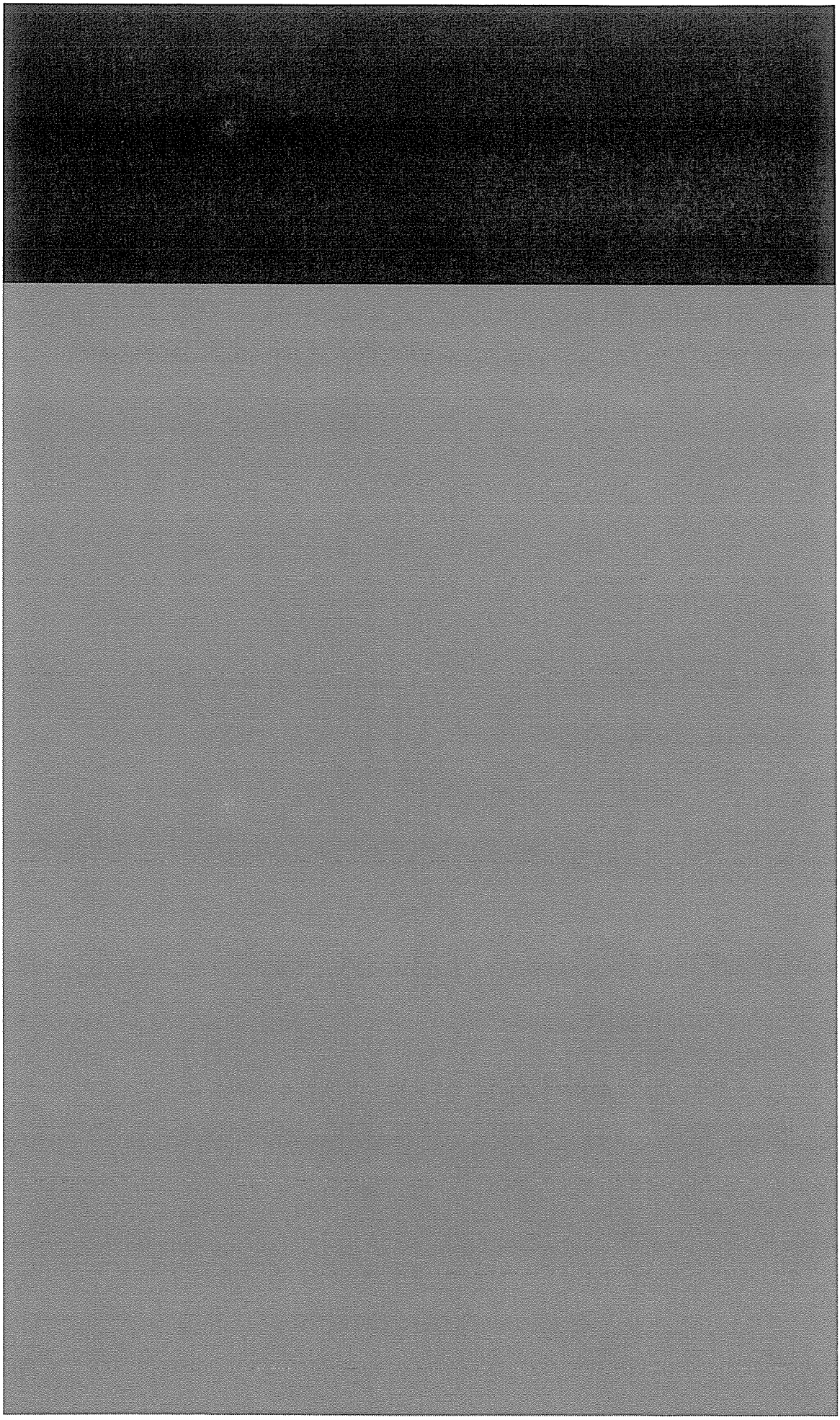
840 Devices

NAIS-compliant devices/tags, sometimes called "840" devices/tags, come in a variety of forms. The first three digits (840) are the U.S. country code. Eartags are available as visual-only or can incorporate radio frequency technology. Injectable transponders also are available for non-food animals such as horses. Regardless of the form, each device uses the NAIS standardized 15-digit numbering system to create an internationally unique official animal identification number (AIN). The AIN stays with the animal throughout its life.

Role of the Veterinarian in NAIS

As an accredited veterinarian, you already play a role in advancing traceability for animal diseases each time you complete a Certificate of Veterinary Inspection (CVI) for animals traveling interstate or health certificates for animals traveling internationally. The *Code of Federal Regulations* currently requires various forms of "official" identification depending on the class and type of animals in interstate commerce and for State/Federal Cooperative animal disease programs. This will not change as NAIS evolves. However, as the system develops, there are other opportunities for you to participate. Some examples include:

- Assisting your clients with obtaining a premises identification number, or PIN,
- Serving as a manager/reseller (in some States) of official NAIS-approved devices/tags (also known as "840" devices/tags),
- Providing a tagging service using NAIS-approved devices/tags for your clients as part of herd health, and
- Assisting clients in using official ID as part of value-added traceability programs, such as USDA's Process Verified Programs (PVPs) and Quality System Assessment (QSAs).



How NAIS Works

There are three components of NAIS:

Premises registration

A premises is the geographic location where animals are raised, housed, or boarded. Obtaining a premises identification number (PIN) in no way obligates participation in the other NAIS components.

Animal identification

Identifying animals with a unique number, either individually or as a group/lot depending on species, is essential for traceability. The NAIS animal identification number (AIN) remains with the animal for its lifetime. As the transition to NAIS occurs over time, USDA will continue to recognize all official identification numbers and devices currently existing. No previously recognized USDA official numbering system will be discontinued in the near future. Animals that are already officially identified do not need to be retagged with NAIS-compliant devices. NAIS Species Working Groups, composed of State, Federal, and industry representatives, have developed recommendations for acceptable identification methods for each of their respective animal species.

Animal tracing

Access to timely, accurate records that document animal movement activity and identify exposures in the event of an animal health event is fundamental to traceability. Animal owners have the ability to report animal movements that pose a risk of disease transmission or exposure to State or private Animal Tracking Databases (ATDs). The more events that are reported, the more complete the record of movement, and the greater the ability to trace a disease in the event of an outbreak.

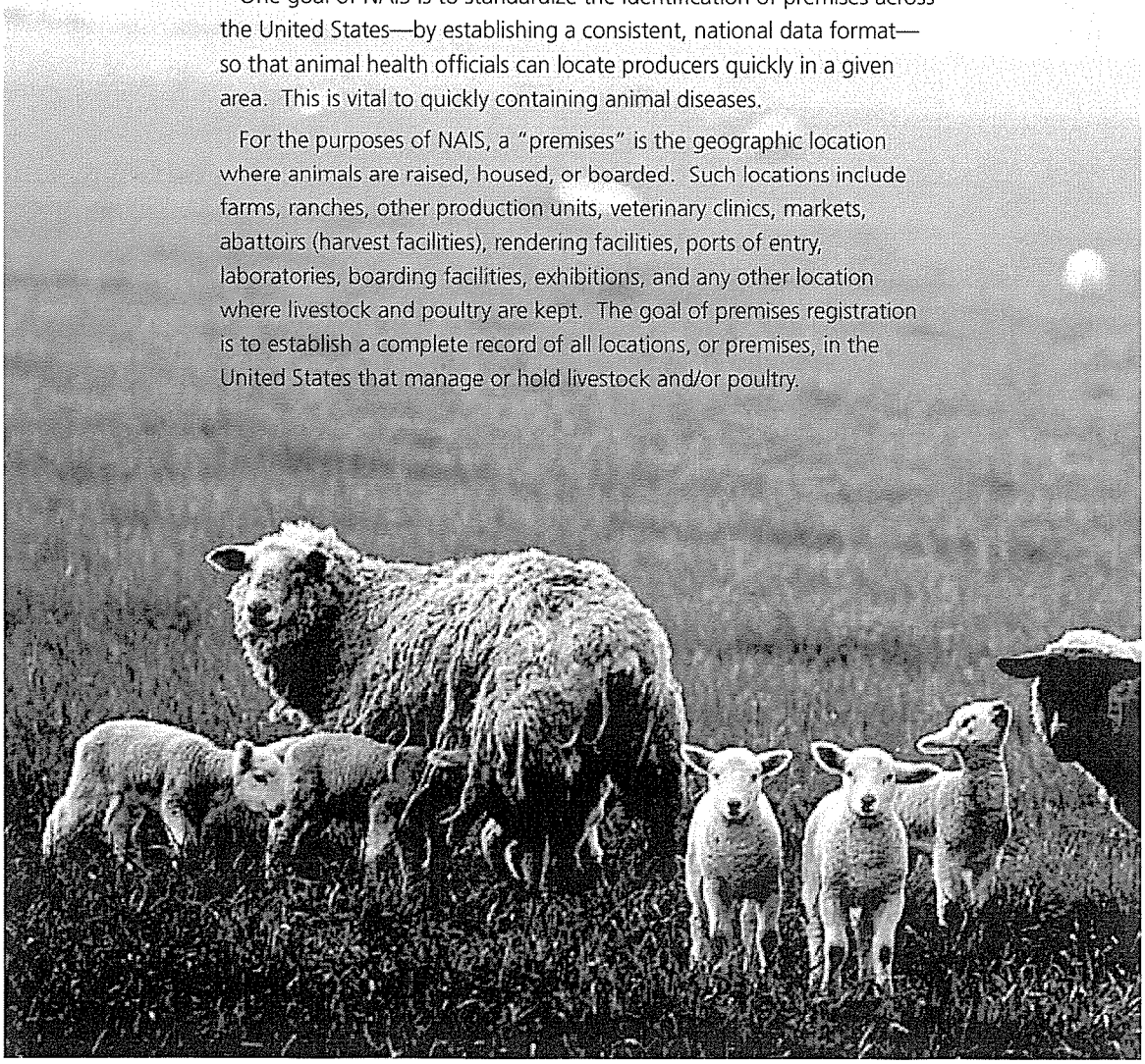
Premises Registration

The concept of identifying premises is not new. Like animal identification, Federal-State animal health programs have utilized numbers to locate herds and flocks for decades, but the numbers were often specific to a certain disease program. For example, when a herd was tested for brucellosis or tuberculosis, it would be entered into a generic database at the State level using location identifiers unique to the brucellosis or tuberculosis disease program.

Problems occurred with this approach because there was no way to prevent more than one herd record from being created for a single location, short of the data entry person completing an exhaustive search across multiple systems. Inconsistency in naming operations could also cause problems. For instance, if "Smith Farms" was entered into the brucellosis database, it might also be entered into the tuberculosis database as "Smith and Sons, Ltd." or "S & S Farms."

One goal of NAIS is to standardize the identification of premises across the United States—by establishing a consistent, national data format—so that animal health officials can locate producers quickly in a given area. This is vital to quickly containing animal diseases.

For the purposes of NAIS, a "premises" is the geographic location where animals are raised, housed, or boarded. Such locations include farms, ranches, other production units, veterinary clinics, markets, abattoirs (harvest facilities), rendering facilities, ports of entry, laboratories, boarding facilities, exhibitions, and any other location where livestock and poultry are kept. The goal of premises registration is to establish a complete record of all locations, or premises, in the United States that manage or hold livestock and/or poultry.



Obtaining a PIN

All animal owners and veterinary clinics that have handling facilities for large animals are encouraged to obtain a PIN, regardless of the number of animals present, because many animal diseases (such as avian influenza, foot-and-mouth disease, and vesicular stomatitis) can spread whether an animal leaves its home premises or not. Premises registration forms are available on many State department of agriculture Web sites, or by contacting the State, Territory, or Tribal NAIS Administrator by mail or phone. State animal health authorities are also available to answer any questions about premises registration and/or the application process. The USDA NAIS Web site has an interactive map with a link to each of the 50 States; to request a PIN, visit: www.usda.gov/nais/getPIN. In addition, each State has a NAIS Administrator; to access this directory, visit: http://animalid.aphis.usda.gov/nais/contact_us/directories.shtml

PREMISES REGISTRATION

KEY POINTS

- Premises Registration provides the opportunity for producers who are not a part of a disease program to voluntarily participate in national animal health safeguarding efforts. (States have the right to mandate participation, and some do.)
- It is free.
- The application process is quick and simple. It requires completing a short form with contact information. From this information, a nationally unique PIN is assigned.
- Individuals' private information and confidential business information is protected from disclosure by Federal law.
- Obtaining a PIN does not obligate participation in the other two components of NAIS.

The Premises Identification Number

When a livestock producer, animal owner, veterinary clinic, or other individual/entity requests a PIN, a nationally unique, seven-digit alpha-numeric code is permanently assigned to the geophysical location by a national allocater that validates that location. An example of a PIN would be A123R69.

Similar to a rural 911 address used by first responders to pinpoint the location of an emergency, the PIN allows animal health officials to quickly locate animals that might be affected by an animal disease event.

If there is no mailing address at the property, geographic coordinates—latitude and longitude—and driving directions from the closest major highway intersection can be used instead to describe the location. (This does not provide any satellite tracking capability of either animals or people living at the premises.)

How PINs Work

Knowing where animals are actually located (premises identification) and how to reach owners and veterinarians is fundamental to an animal disease traceability system that supports a rapid, accurate, and cost-effective animal disease response. Premises information can also be used to quickly define which regions of our country are not affected by an outbreak—keeping markets open for unaffected producers and preventing unnecessary movement restrictions.

Obtaining a PIN ensures that animal owners and veterinarians receive the information they need to protect their animals and their investments in the event of a disease outbreak or natural disaster. When needed, animal health officials will be able to quickly locate affected and at-risk animals and take precise actions to address the situation, minimize hardships, and speed disease control and/or eradication efforts as much as possible.

PINs in Action

In 2006, Colorado animal health officials used premises data to quickly locate livestock and contact producers in blizzard-affected areas to better meet animal and producers' needs. Additionally, because many of the roads were impassable, helicopters were able to locate farms using their geophysical coordinates and drop much-needed feed to the animals.

Wisconsin was the first State to mandate premises registration. Because of this, animal health officials were able to notify horse owners in the area rapidly when West Nile virus was diagnosed.

Change of Ownership or Participation in Premises Registration

If an owner sells his/her farm, ranch, or veterinary clinic, the next owner will use the original PIN that was assigned to that location and update the contact information. If a PIN had not been previously assigned, the new owner can obtain a PIN for that location. To find out if the location has already been assigned a PIN, contact the State, Territory, or Tribal NAIS Administrator.

If, for some reason, you or your client decides to no longer participate in premises registration, there is a procedure to opt out and remove your PIN from the system. Contact your State, Territory, or Tribal NAIS Administrator for more details.

Information Associated With PINs

When an individual requests a PIN, the following pieces of information are collected and stored in the National Premises Information Repository (NPIR):

- Premises identification number (PIN);
- Name of entity;
- Owner or appropriate contact person;
- Street address, city, State, and Zip or postal code (or latitude/longitude coordinates) of the premises;
- Contact phone number;
- Operation type (e.g, farm, ranch, veterinary clinic, market, packing plant, abattoir, boarding facility, rendering facility, port of entry, laboratory, exhibit, etc.);
- Species at premises;
- Date activated, date retired, and the reason retired (to determine whether animals still exist at the location); and,
- Alternative phone numbers.

For single site operations, the farm name is an appropriate entity. For multiple site operations, names such as "home place, dry lot, north pasture, feed lot, or sow farm" could be used.

USDA has established only minimum standards; each State, Territory, or Tribe may have additional information requirements for premises registration. That additional data will be maintained at the State, Territorial, or Tribal level. USDA will not maintain any additional data on participants in the NPIR beyond the required fields of information listed above.

The Need For More Than One PIN

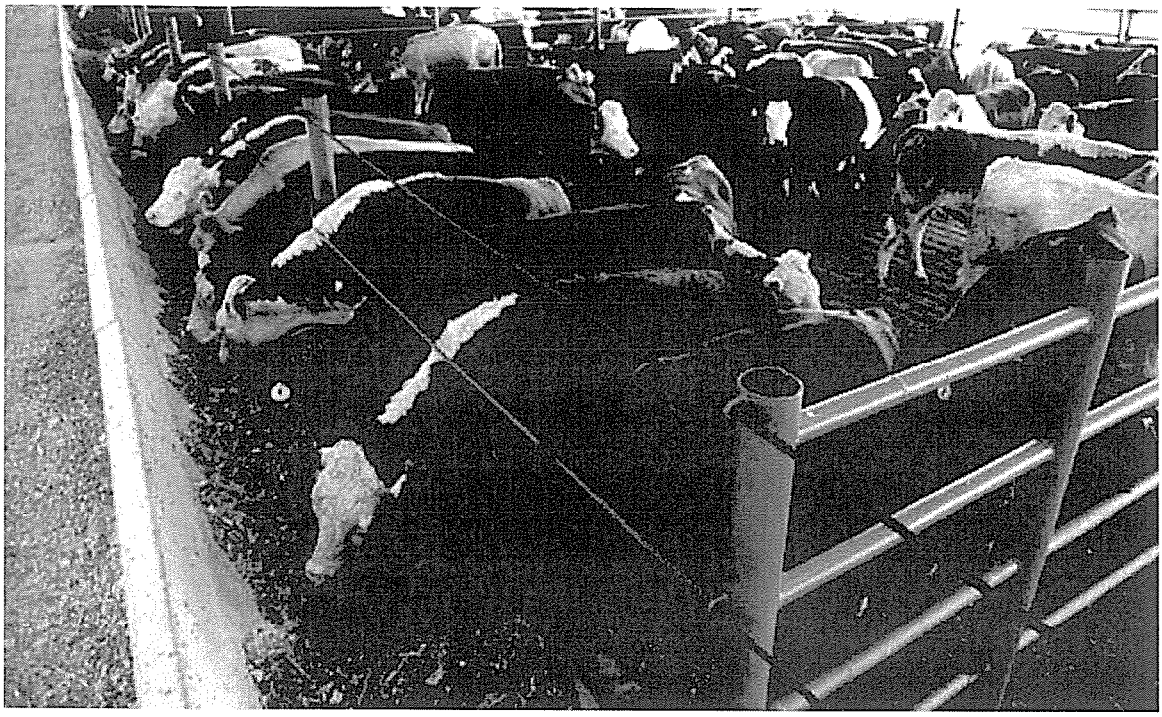
As a veterinarian, you might work with large-scale livestock operations that conduct business as a single entity but have animals in multiple, geographically distinct locations. Your veterinary practice might also involve several different locations that are managed under a single business name. Consequently, livestock owners and veterinarians might need to consider having multiple PINs—one for each of the distinct operation or business locations. To determine if more than one PIN is needed, livestock owners and veterinarians should consult with State, Territory, or Tribal animal health officials. State, Territory, or Tribal animal health officials will take into account many factors that could indicate a need for multiple PINs. They might consider:

Commingling of animals: In a large-scale operation or business that has more than one location where animals of various origins and health status are housed, even if only for short periods of time, State, Territory, or Tribal animal health officials may recommend a PIN for each location.

Permanence: A unique PIN may be issued for each geographically distinct location within a single operation or business that has permanent livestock facilities, such as pens, corrals, stables, sale rings, or buildings.

Area livestock density: In an effort to establish a true epidemiologic picture of an area where livestock are densely populated, State, Territory, or Tribal animal health officials may recommend assigning a PIN to each of the business or operation locations that fall inside that geographic area.

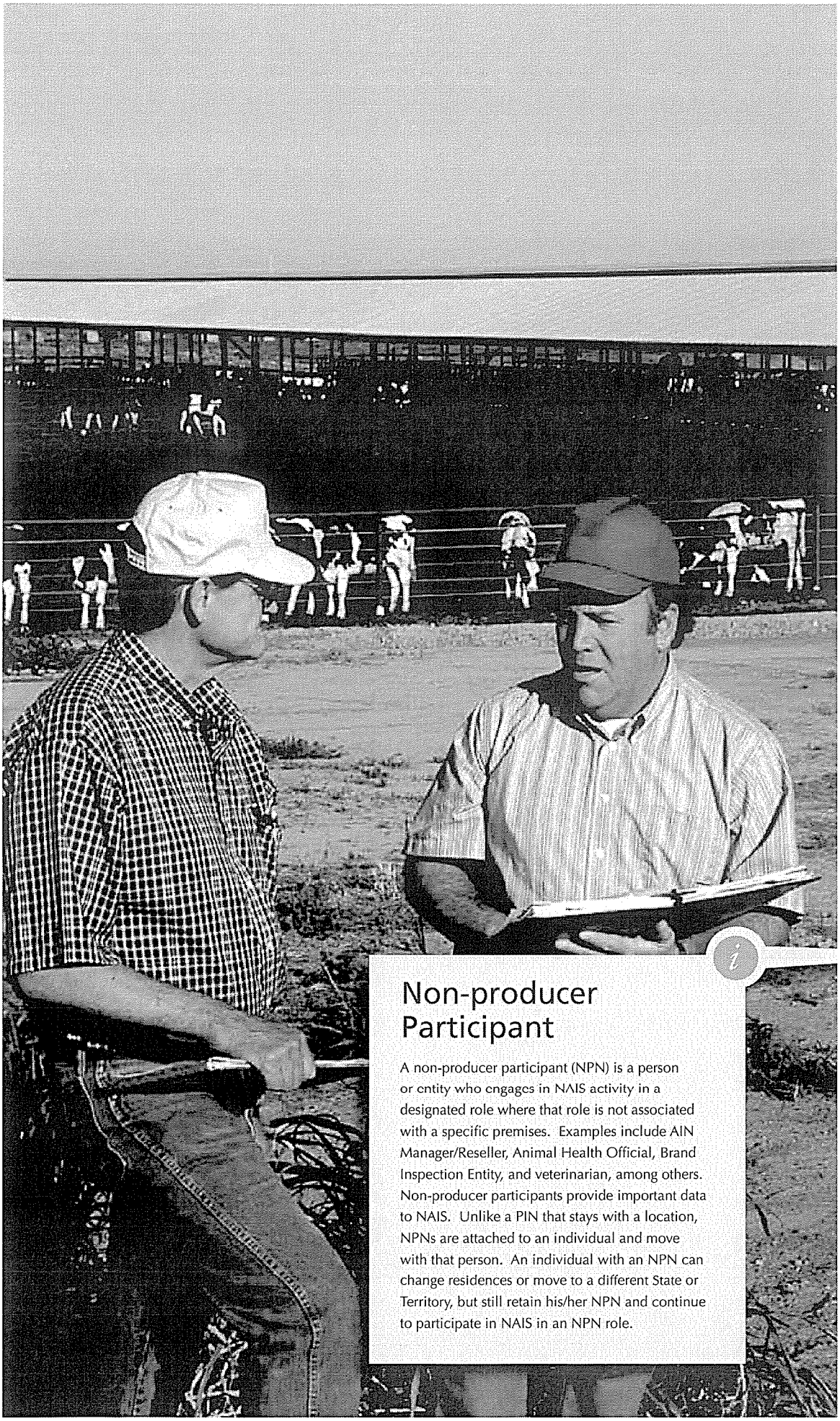
Animal movement between locations: Large-scale operations or businesses that frequently and routinely move animals from one geographically distinct location to another within the operation may need a PIN for each location—especially if the movements present a risk of disease transmission to other livestock in the area. On the other hand, even if there is no animal movement between geographically distinct locations within an operation, State, Territory, or Tribal animal health officials may still recommend a separate PIN for each location.



5 **Geographic separation:** Because the risk of disease exposure from and transmission to other livestock operations increases when animals are moved longer distances, State, Territory, or Tribal animal health officials might recommend that operations or businesses that manage multiple, geographically dispersed locations get a PIN for each location.

6 **Proximity to other livestock operations:** When determining if a separate PIN is needed for each geographically distinct location within a single operation or business entity, State, Territory, or Tribal animal health officials will consider each location's proximity to other livestock operations and the potential for contact with other livestock in the area. Locations that have close contact with a neighboring operation or that are situated along a route routinely used for animal movements would likely require separate PINs.

As NAIS continues to develop, more States, Territories, and Tribes may require the PIN on Certificates of Veterinary Inspection (CVI). Many States have already changed their CVI forms to capture this information, and it is now becoming a national standard. PINs may also be used on international health certificates. Even though only some Federal forms currently used in program disease work request PIN information, it is important to be aware that State and Federal forms will change in the future as NAIS standards are adopted for all official animal disease program work. Until that change happens, it is good practice to record a location's PIN (if available) on official forms as additional information.



Non-producer Participant

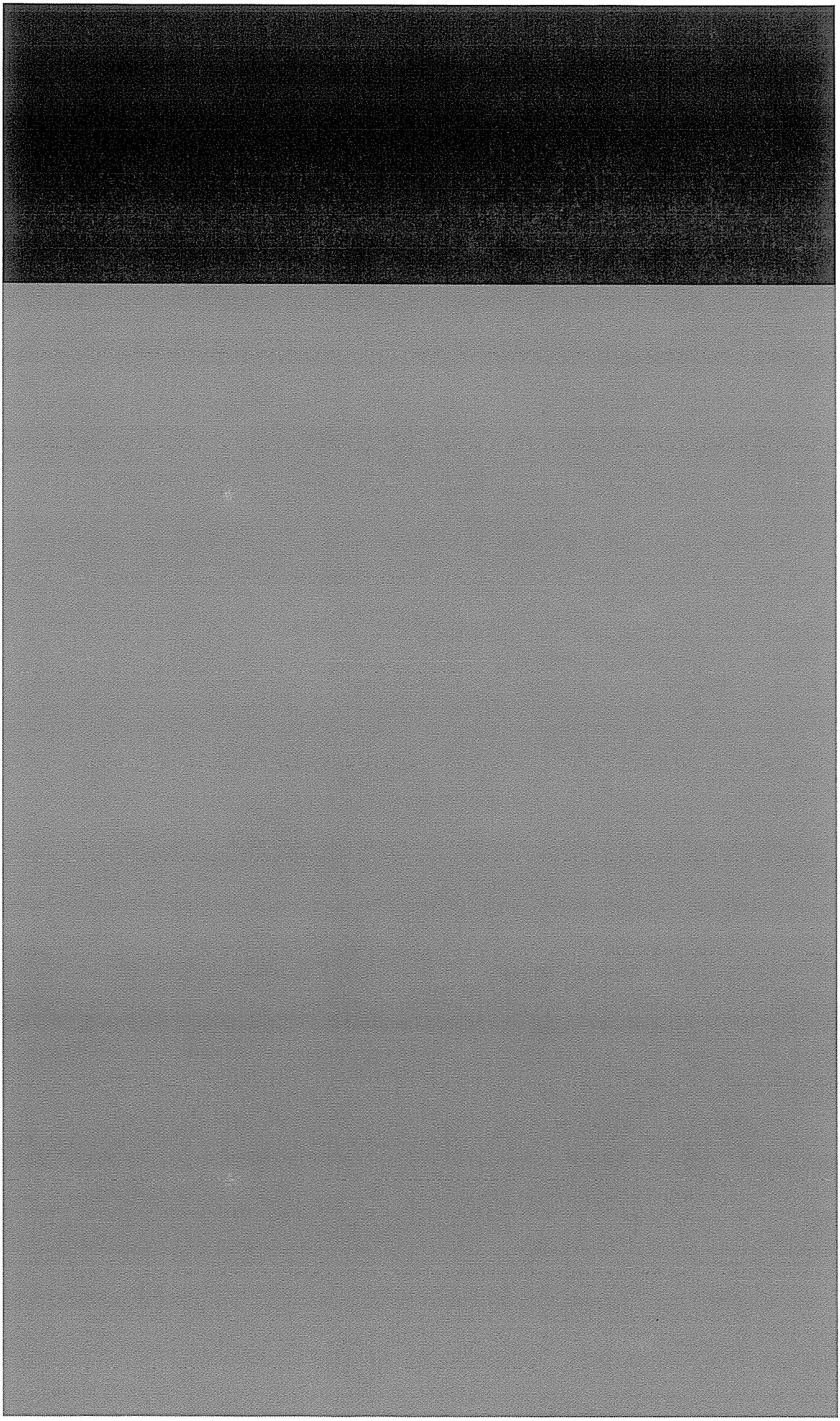
A non-producer participant (NPN) is a person or entity who engages in NAIS activity in a designated role where that role is not associated with a specific premises. Examples include AIN Manager/Reseller, Animal Health Official, Brand Inspection Entity, and veterinarian, among others. Non-producer participants provide important data to NAIS. Unlike a PIN that stays with a location, NPNs are attached to an individual and move with that person. An individual with an NPN can change residences or move to a different State or Territory, but still retain his/her NPN and continue to participate in NAIS in an NPN role.

Role of the Veterinarian in Premises Registration

As an accredited veterinarian, it is important to understand the process of premises registration to be able to explain it to your clients. By obtaining a PIN for your veterinary clinic, you are promoting NAIS and setting an example for your clients about its importance for traceability and the prevention of disease spread. Requesting a PIN for yourself will also enhance your familiarity with the process so that you can comfortably assist your clients. Veterinary clinics will be an important resource in the event of an animal health emergency.

Registering a Premises as an Authorized Agent

In a very few States, Territories, and Tribes, you may also act as an authorized agent and offer premises registration as a service to your clients. To act as an authorized agent, you will first need to register yourself in the system as a non-producer participant (NPN) or obtain a PIN for your clinic. For details on this process, check with your State, Territory, or Tribal NAIS Administrator.



Animal Identification

The second component of NAIS is animal identification, which provides a nationally unique numbering system for identifying animals. Animals can be officially identified individually or as a group, depending on the species. Owners should identify their animals before the animals leave their home premises and enter commerce, or before they are moved from their home premises to another location where the possibility of commingling with other animals presents an increased risk of disease transfer or exposure (such as livestock exhibitions, sporting events, auction markets, feedlots, etc.).

Official animal identification devices that are compliant with NAIS standards are available for most species. See http://animalid.aphis.usda.gov/nais/animal_id/index.shtml and select "AIN Devices" in the Quick Downloads box on the right for a list of devices available for the following species: Cattle and Bison, Swine, Sheep and Goats, Cervids (deer and elk), Equines (horses, mules, donkeys, burros), and Camelids (llamas and alpacas).

Household pets (cats and dogs) are not included in NAIS.

ANIMAL IDENTIFICATION

KEY POINTS

Animal identification serves a variety of purposes in surveillance and disease control.

- Electronic health certificates or Certificates of Veterinary Inspection (eCVIs) require official animal identification, and the number assigned by NAIS can be used to meet this requirement.
- When testing animals as part of a surveillance program for diseases such as tuberculosis or pseudorabies, official individual identification is required because of its importance in providing the means to follow up on positive or negative animals.
- Healthy or non-exposed animals may be officially identified as part of a regionalization or compartmentalization approach following an outbreak to facilitate business continuity.
- Animals are officially identified to show they have been vaccinated for a regulated disease, such as brucellosis.
- Official identification must be used for animals that have reacted positively to a test for a regulated disease.

Individual Animal Identification Number (AIN)

The individual animal identification number (AIN) is an official, unique, 15-digit number that stays with the animal for its lifetime. The AIN is imprinted on identification devices with a space between every third digit to improve readability. For example: 840 234 567 890 123

- The first three digits of the AIN comprise the country code—840 is the United States country code and is assigned by the International Committee on Animal Recording (ICAR).

The AIN provides a unique identifier for the animal anywhere in the world. The 15-digit number is required on all official AIN devices and will soon be required on certain USDA forms. The AIN Management System initially associates the AIN with the PIN from the animal's premises of origin—either its birthplace or where it was first identified. This serves as the starting point for the animal in the system—and these data (the AIN and associated PIN) remain in the Federal database.

Ideally, the AIN is attached to the animal before it leaves its current premises. However, some owners may elect to attach AINs at birth and utilize them in their on-farm recordkeeping system. Animals that are born, raised, and housed on the same location and that do not enter commerce may not need to be officially identified unless the owner so chooses.

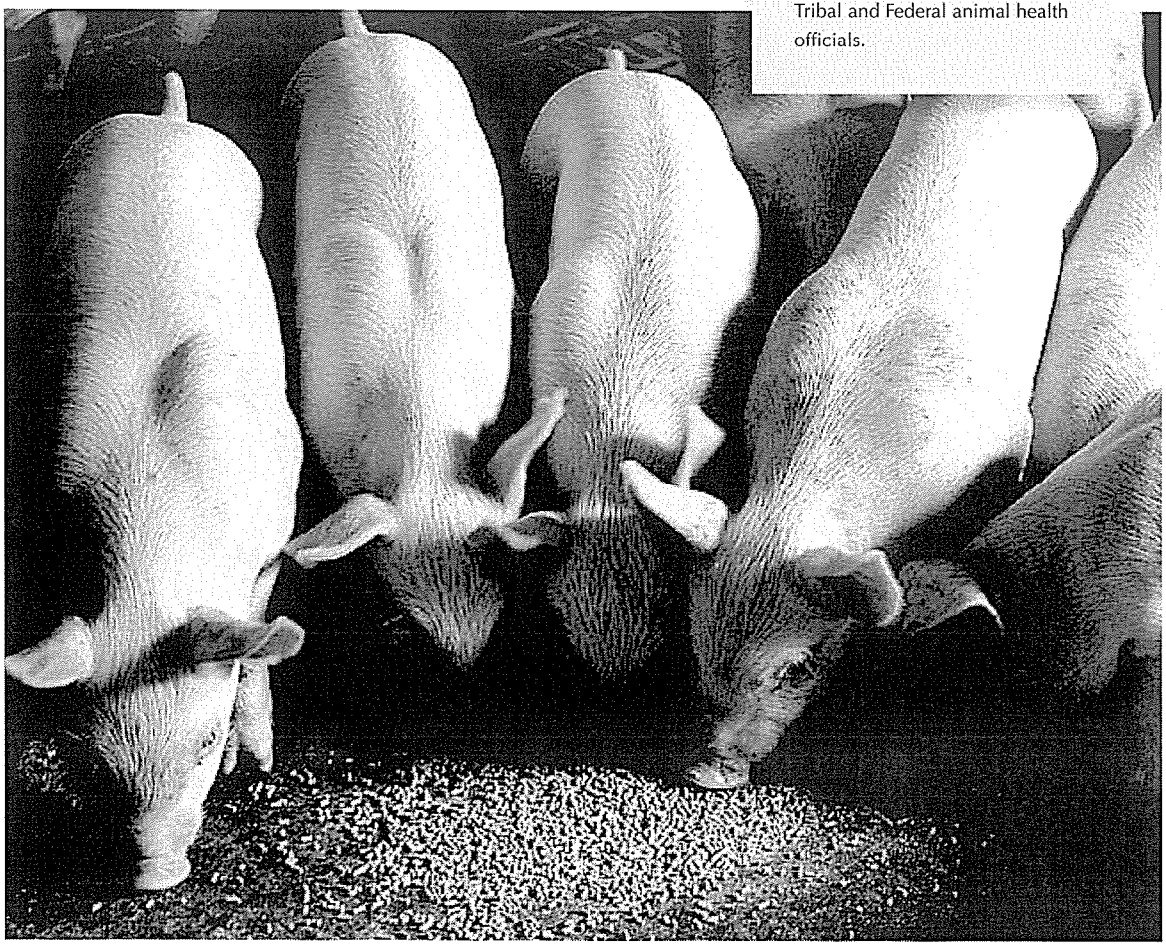
NAIS Species Working Groups continue to evaluate and recommend which identification devices and methods work best for their species/industry and will help determine appropriate standards for USDA official identification devices and methods.

Group/Lot Identification Number (GIN)

Animals that typically move through the production chain as a group of animals of the same species, as is common in the swine or poultry industries, can be identified by GINs, rather than individual numbers. However, this option is not restricted to swine and poultry, as it may also apply to other specific animal groups. An animal removed from the group should be identified individually if it will be making **reportable movements** (e.g., to a veterinary clinic for treatment or to a livestock show). Once animals are commingled, they are no longer being maintained as a separate group. Even if animals are kept in the same pen (i.e., at a feedlot or auction market), they are on a different premises and are considered commingled by virtue of exposure to pathogens via aerosol, water sources, or alleyway trafficking, among other potential indirect transmission routes.

Reportable Movements

Reportable movements are those that impact the spread of animal diseases. Examples include commingling animals on another facility or moving animals to an auction or market, national/regional exhibitions, or sporting events. Reportable animal movement activity will be defined by State, Territorial, Tribal and Federal animal health officials.



The group identification number (GIN) is a 15-character number. For example: A23456710030204

- The first seven numbers and/or letters are the seven-character PIN of the location where the group is being created.
- The next six numbers are the date the group was assembled in MMDDYY format—in this case, on October 3, 2002.
- The last two numbers reflect the count of groups assembled at the same premises on the same day (starting with 01)—in this case, the fourth group assembled on October 3, 2002, at premises A234567.

The GIN is not assigned by USDA; rather, it is "self-generated" by the producer at the premises for animals at that location based on the format described above. It is also maintained by the producer in his/her management records, not by USDA or States, Territories, or Tribes. The Species Working Groups will provide more recommendations on a species basis about how group movements should be maintained and/or reported.

Types of Acceptable Individual Animal Identification

The official numbering system used in NAIS can be used with all disease programs for a variety of species and offers enhanced traceability. However, USDA has utilized official identification for years in various animal disease programs. There are several formats for official identification currently in use.

As the transition to NAIS occurs over time, USDA will continue to recognize all official identification numbers and devices currently existing. No previously recognized USDA official numbering system will be discontinued in the near future. For example, animals currently identified through official programs like the National Scrapie Eradication Program do not need to be re-identified for NAIS, even though the owners may have acquired a PIN in addition to a scrapie flock number.

USDA official numbering systems for individual animal identification include, but are not limited to:

National Uniform Eartagging System

- Brucellosis calfhood vaccinations (orange tags)
- Tuberculosis testing (bright tags)

Flock Identification Number with a unique herd management number

- National Scrapie Eradication Program

Animal Identification Number (AIN)

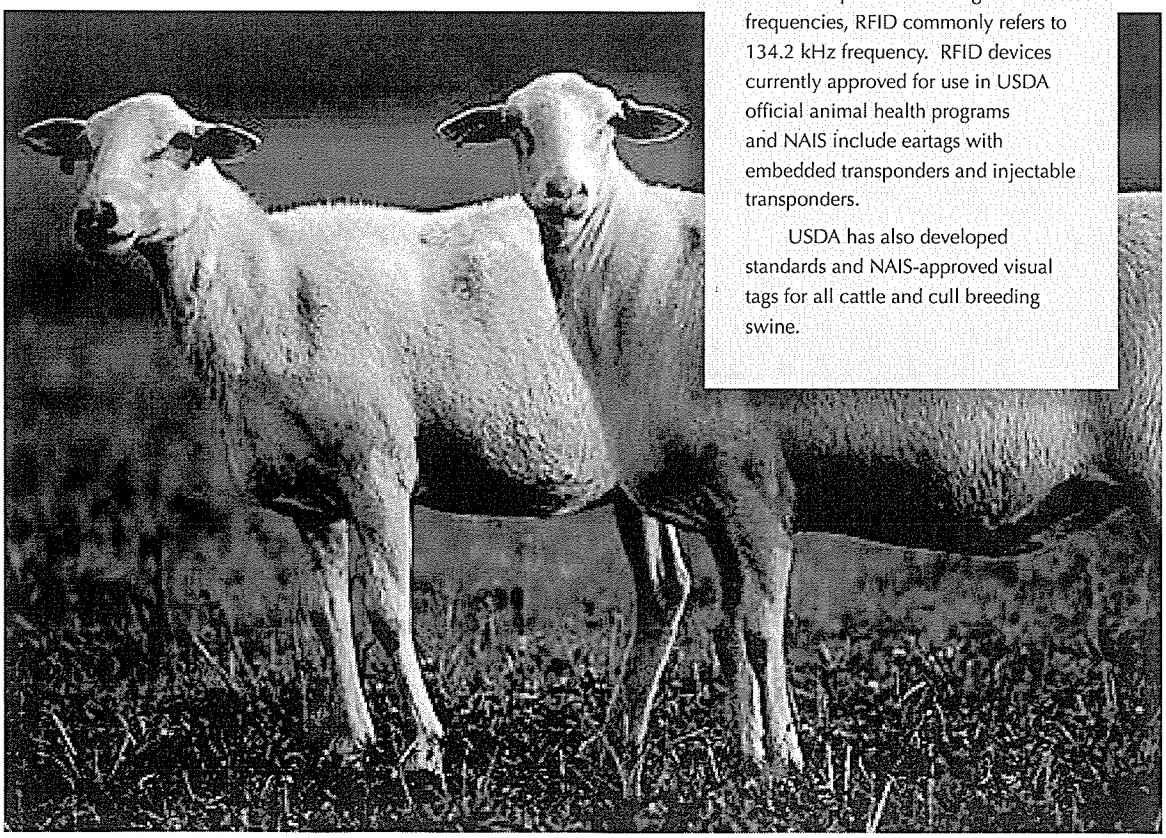
- Chronic wasting disease, tuberculosis, and brucellosis

Cattle and sheep are typically identified with either a visual or **radio frequency identification** (RFID) (134.2kHz) eartag while horses, llamas, alpacas, and other species may be identified with an injectable, RFID [134.2 kHz (NAIS) or 125 kHz (non-NAIS)] device.

Radio Frequency Identification (RFID)

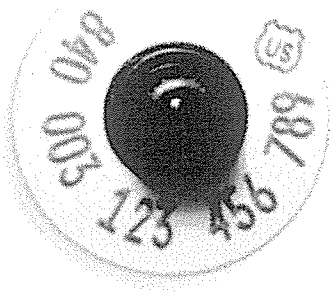
RFID is a device that utilizes radio frequency technology. While RFID can encompass a wide range of frequencies, RFID commonly refers to 134.2 kHz frequency. RFID devices currently approved for use in USDA official animal health programs and NAIS include eartags with embedded transponders and injectable transponders.

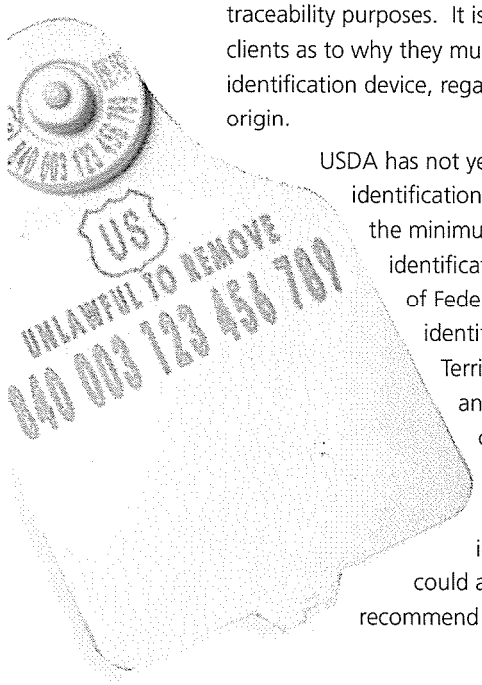
USDA has also developed standards and NAIS-approved visual tags for all cattle and cull breeding swine.



Individual Animal Identification Devices

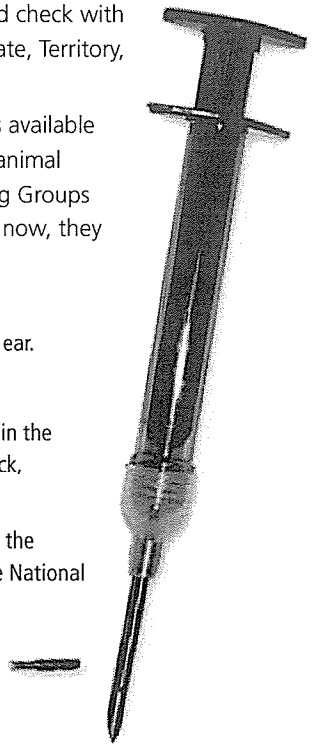
It is unlawful to remove USDA official animal identification devices/tags. It is also unlawful to remove official country identification device(s)/tags(s) from imported animals. These official country identification devices/tags are critical for traceability purposes. It is important to educate clients as to why they must not remove any official identification device, regardless of the country of origin.





USDA has not yet designated any specific identification technologies beyond the minimum requirements for official identification that have been described in the Code of Federal Regulations. However, official animal identification requirements can vary at the State, Territory, or Tribal level, so be sure and check with animal health authorities in your State, Territory, or Tribe for more information.

As more information becomes available on the various technologies for animal identification, the Species Working Groups could alter their recommendations. For now, they recommend the following:



- Cattle – RFID ear tag attachment should be placed in the left ear.
- Bison – undetermined at this time.
- Equine – RFID (injectable transponders) should be implanted in the nuchal ligament on the left side, in the middle third of the neck, halfway between the ears and the withers.
- Sheep & Goats – official forms of identification should follow the guidelines set forth in the Uniform Methods and Rules for the National Scrapie Eradication Program.
- Cervids – undetermined at this time.
- Camelids – undetermined at this time, but RFID injectable transponders implanted at the base of the ear are currently used in various breed registries.
- Swine and Poultry – animals in many of these productions settings would be identified as group/lot rather than individually, but identification devices can be provided when individual animal ID is warranted (e.g., show pigs, cull sows, and boars).

Obtaining Individual Animal Identification Devices

1 Obtain a PIN

- Before individual animals can be identified, the producer or animal owner must first obtain a PIN. The PIN is linked to all of the AINs for that location.

2 Contact an AIN Manager for official identification devices

- AIN Managers have agreements with manufacturers that have been authorized by USDA to distribute devices that include AINs.
- As a veterinarian, you can become an AIN Device Manager/Reseller or distributor; contact your State animal health office or visit the NAIS Web site for more information at http://animalid.aphis.usda.gov/nais/naislibrary/documents/guidelines/Steps_for_Becoming_an_AIN_Device_Manager.pdf.
- Each manufacturer is allocated specific AINs to ensure that the uniqueness of that number is maintained.
- The AIN Management System Web page lists authorized AIN devices, their manufacturers, and the species for which they are recommended at http://animalid.aphis.usda.gov/nais/animal_id/ain_mngt_sys.shtml. USDA updates the page as additional manufacturers are authorized, so you should check back periodically for more options.

3 Provide your PIN to the AIN Manager

- The manager will validate the PIN.
- The devices will be shipped or delivered to the premises.

4 Inspect the official AIN devices upon arrival

- Official AIN devices (with the exception of injectable transponders) must contain:
  - The 15-digit animal identification number (AIN),
  - The U.S. Shield, US
  - The words, "UNLAWFUL TO REMOVE."
- The approved device manufacturer is required to imprint or engrave its trademark or logo on the device.

Applying Identification Devices

NAIS identification devices may be applied whenever preferred by the producer, but no later than when the animals leave the premises for treatment, a livestock show, a sporting event, a market or auction, or to go to another person's farm or ranch, unless moved directly to an official tagging site. Becoming approved as an Official Tagging Site could enable you to provide a service for your clients that could easily be tied to other herd health services. [For more information about becoming an Official Tagging Site, contact your State NAIS Administrator at http://animalid.aphis.usda.gov/nais/contact_us/directories.shtml.]

If there are extra devices/tags left over once all of the animals on a premises have been identified, the materials should be stored in a secure location. Under no circumstances should extra devices/tags be given or sold to another producer, because all purchased AIN tags are linked in the AIN Management Information System to the PIN for the location where they were shipped or delivered.

Lost/Malfunctioning Identification Devices

In the event that an animal loses its official identification, it should be re-identified as soon as possible. Ideally, the previous number along with the new number should be recorded in the information system (e.g., noted in the owner's production records or to the Animal Tracking Database [ATD], if data with the original AIN were previously submitted). If an animal was purchased, and its original number is not known, the person responsible for the animal should document the new identification number and as much detail about the animal as possible in his/her production records.

If the RFID tag malfunctions, the animal should also be re-identified with a new device in a timely manner. Again, the new number along with the previous number should be recorded and reported to the information system (ATD).

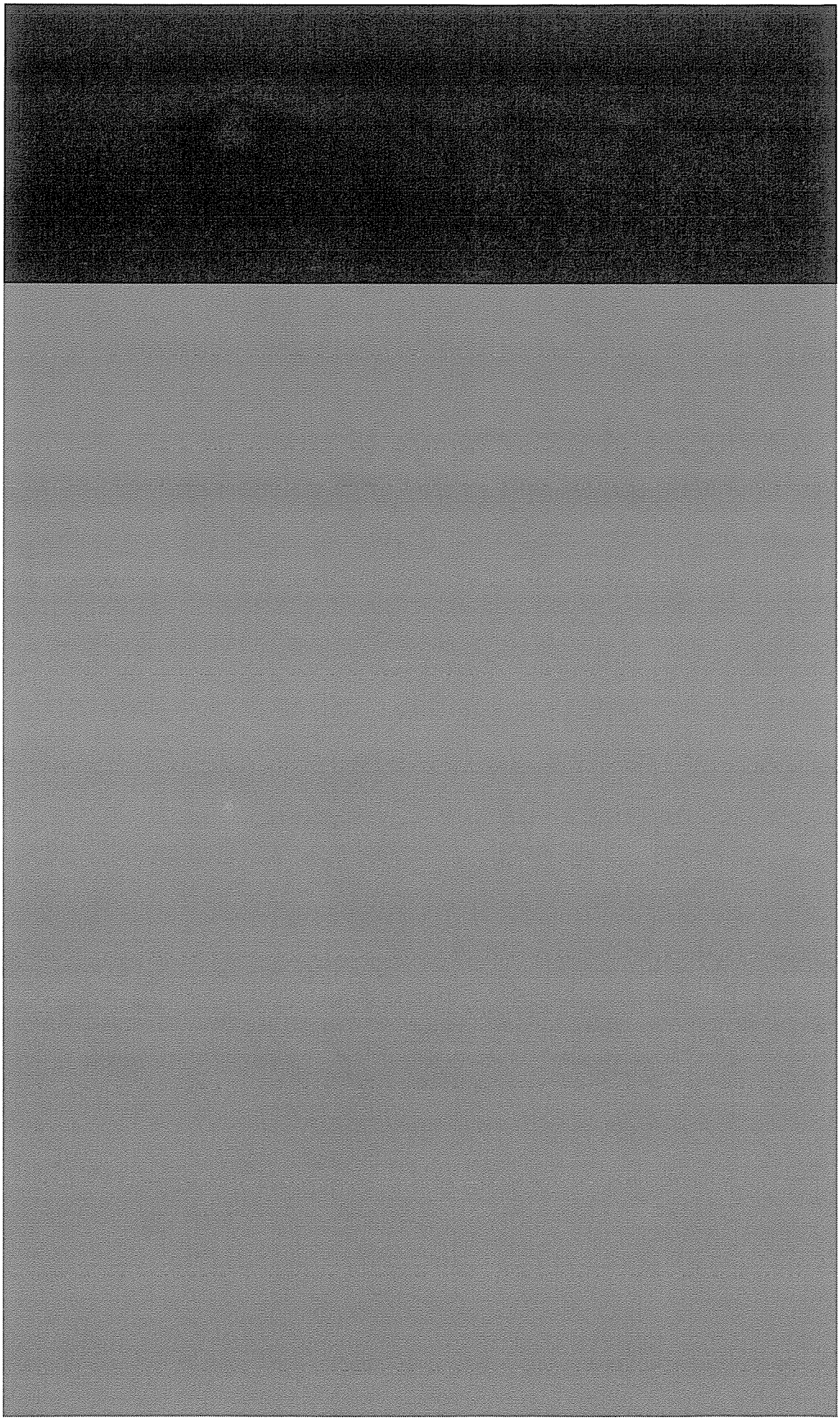
RFID field application issues, such as tag retention, proper placement on the animal, and temperature effects, were reviewed in USDA-funded Pilot Projects from 2005 through 2007. More information about these projects is available at http://animalid.aphis.usda.gov/nais/naislibrary/documents/plans_reports/PilotProjectReportFINAL05-01-2007.pdf.

Role of the Veterinarian in Animal Identification

Your clients will likely have questions about animal identification, both for official disease program work and for possible management use, so it is important to stay current on the latest recommendations. As this component of NAIS develops, USDA will provide information on its Web site at http://www.usda.gov/nais. You can also call your State, Territory, or Tribal NAIS Administrator at any time, or refer your clients to these individuals with specific questions.

As an accredited veterinarian, you may also be able to provide the devices and readers as a service to your clients as an AIN Manager/Reseller.

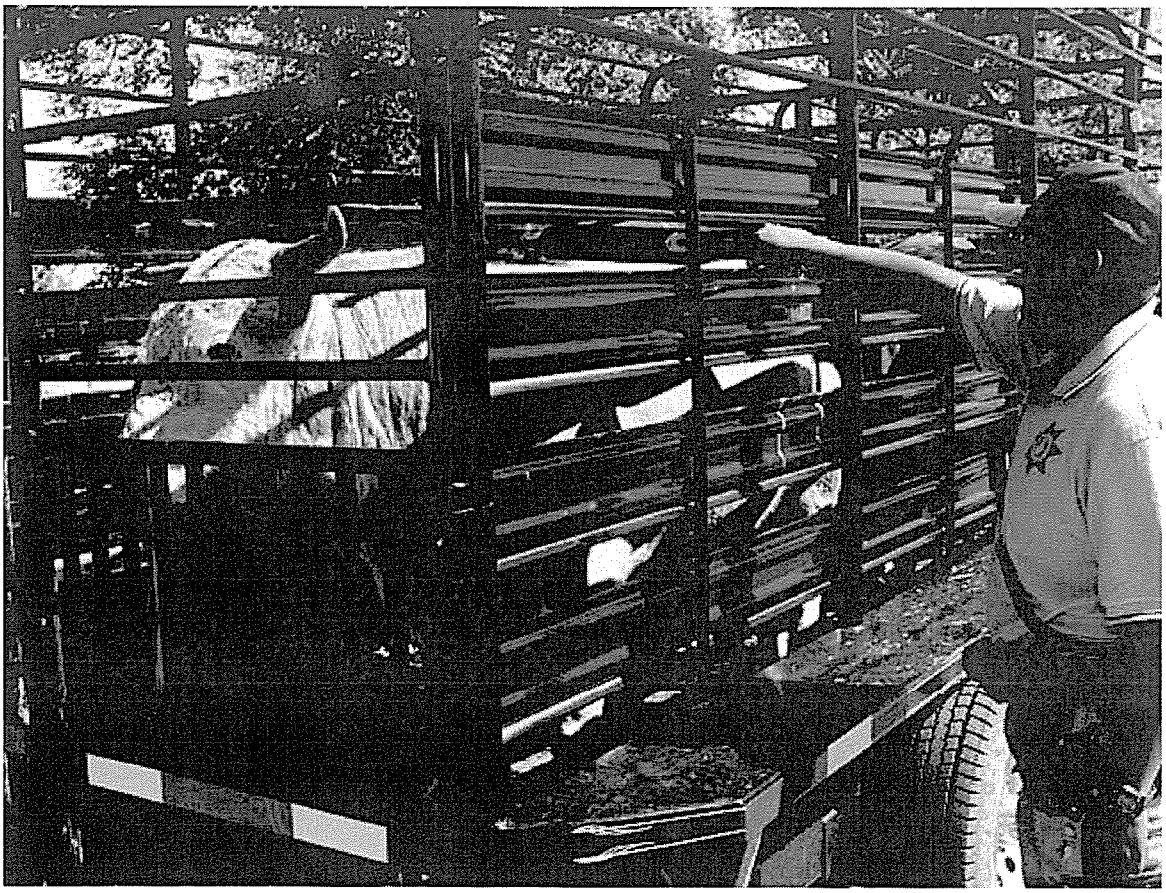
When completing CVIs (both electronic and paper copies) and international health certificates, "840" AINs used for NAIS can be recorded as official individual animal identification.



Animal Tracing

Animal tracing is the third component of NAIS and offers another option for animal management and protecting animal health. Several of the animal tracking databases (ATDs) are operational. Livestock owners can choose an ATD—operated and maintained by private industry groups or States—and report certain animal movements that might pose a significant risk of disease transmission.

As these systems "mature" and receive additional animal movement records, animal health officials will be able to access timely, accurate records that show where animals have been and what contact they may have had with other animals. The ATD providers may also offer management programs and services, source- and age-verification programs, or other enhanced marketing opportunities using NAIS standards and identification devices. The information resulting from such services is entirely outside the scope of NAIS and is administered separately in the private sector. However, the harmonization of such standards allows producers to expand the use of NAIS devices and data standards for other reasons that may provide advantages to their businesses.



Reporting Animal Movement

When producers participate in the voluntary animal tracing component, they will work directly with State or private service providers. Animal movement records will be securely held in ATDs owned, managed, and controlled by the private sector or the States.

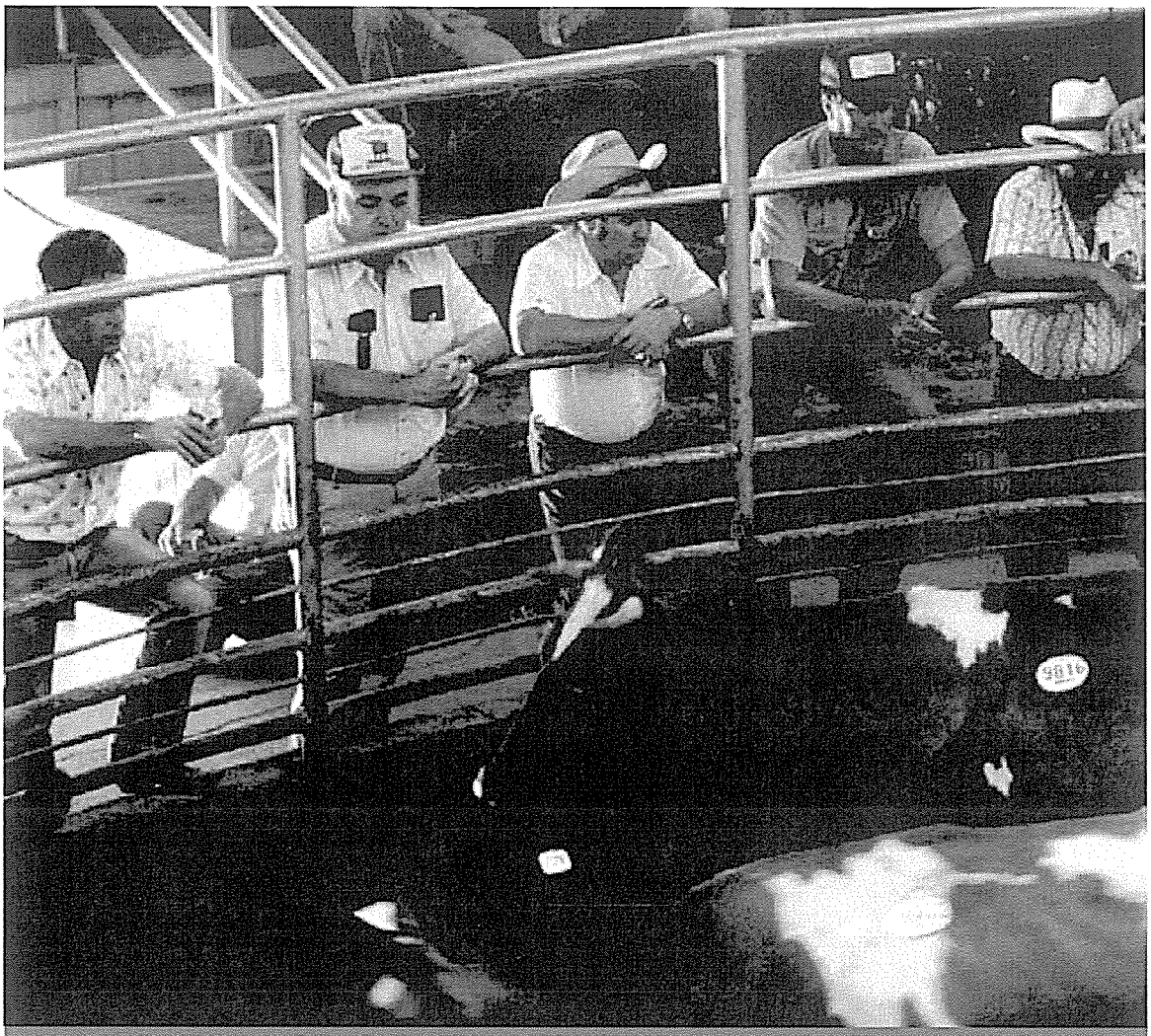
USDA realizes that attempting to record all animal movements is not practical. The focus of NAIS is on the type of movement and its potential impact on spreading a disease. As an accredited veterinarian, you can help your clients understand which movements are most important to report.

If producers elect to report animal movements, they are encouraged to do so within 24 hours or by the close of the next business day. The following information should be provided:

- Animal identification number (AIN)
- Premises identification number (PIN) where the event takes place
- Date
- Nature of the event (event code)

The chart on page 42 provides a preliminary list of animal movement examples and the importance of reporting such events to an ATD, keeping practicality in mind. Those events listed as "high" should be reported; those listed as "low" might not need to be reported. However, any entering or exiting movement can be reported to the ATD if the producer/owner so desires. From a liability standpoint, some producers might view it as actually decreasing their liability regarding husbandry responsibilities by reporting that specific animals left their premises on a specific date and were no longer in their control.

If USDA needs animal movement and location information to respond to an animal health event—such as an outbreak of avian influenza, brucellosis, or tuberculosis—data will be requested from the private or State databases through the Animal Trace Processing System (ATPS). Federal law protects individuals' private information and confidential business information from public disclosure.



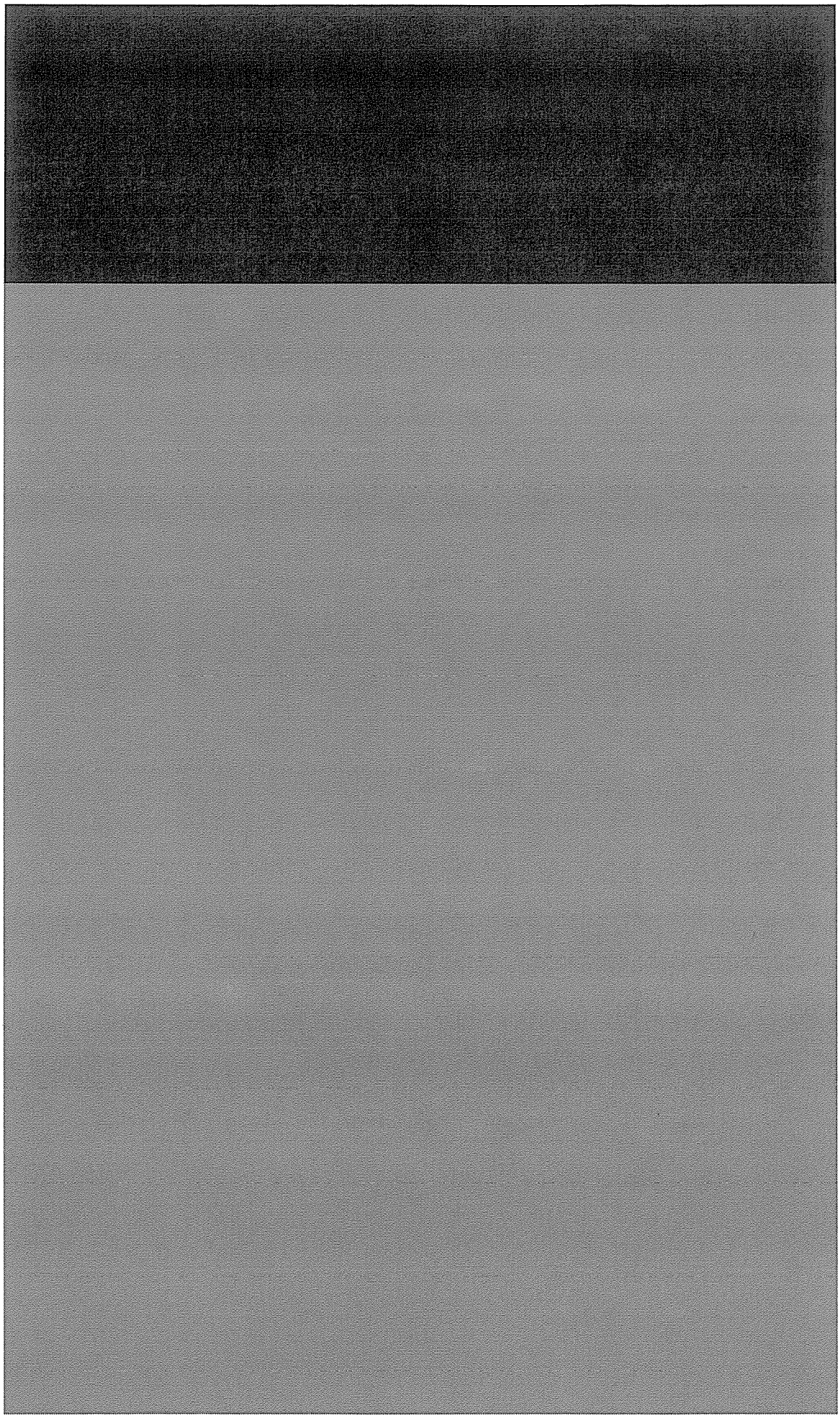
Movement Reporting in Action

Since 2005, Michigan has installed RFID readers in all of the state's livestock markets and seven slaughter plants where the majority of the state's cattle are sent. Cattle in the State are required to use RFID identification, so the State-purchased readers easily record animal movements through the markets and slaughter plants. Should the need arise, Michigan officials will quickly be able to trace animals between the markets, slaughter plants, and farms of origin.

Type of Movement	Relative Reporting Importance	Explanation
Selling an animal – private, public market, or auction	**High**	Animals from different sources that are commingled have the potential to spread disease and should be reported.
National/regional exhibition or sporting event	**High**	Large shows with animals traveling from a wide geographic area merit reporting.
Treatment at a veterinary teaching hospital, referral practice	**High**	Animals could contact animals of varying health status from a wide geographic area, and this merits reporting.
Local exhibitions or sporting events	**Low**	The risk of exposure and spread still exists, but the disease cases would be more localized. Providing CVIs with premises registration and animal identification is commonly practiced and warranted for some species.
Local trail ride	**Low**	The risk of exposure and spread still exists, but the disease cases would be more localized.
Moving animals within an operation or premises (between pastures)	**Not applicable**	These types of movements are considered within the operation's management. The entire operation would be considered a single premises during an outbreak.
Taking a home-raised animal to a custom butcher	**Not applicable**	If the animal was born and raised on your operation and slaughtered for personal use, this movement does not need to be reported. However, if the product is to be sold or distributed, State regulations must be followed.

Role of the Veterinarian in Animal Tracing

As the animal tracing component develops, animal owners might have questions about what movement events to report. As their veterinarian, your knowledge about animal disease incidence in the area, health status of various herds and animals, and management capabilities of producers makes you a valuable resource in advising animal owners about key animal movements. For instance, any time animals are commingled from multiple sources, the risk of disease exposure warrants reporting. NAIS will not replace existing State requirements related to certain animal movements.



Estimated Costs Associated With NAIS

The costs of developing and implementing NAIS will be handled by State/Federal Government and industry. Individuals who choose to participate in certain components of this voluntary system will bear some costs as well. For each NAIS component, the anticipated costs for producers and veterinarians are briefly explained below:

Premises Registration

- Free in all States, Territories, and participating Tribes

Animal Identification

- Free tags for use in some USDA-APHIS disease programs (scrapie)
- Variable for non-program disease tags depending on animal species and method of identification selected by the producer/owner. Examples:
  - Visual plastic eartags ~$1 to $2
  - Button-like radio frequency eartags ~ $2 to $3
  - Injectable transponders (implants), up to ~ $20
- No additional cost if the owner has the expertise to implant the transponder him/herself
- As a veterinarian, you could provide this service to your clients for a fee; some horse owners are paying $20 per animal.
- Again, the service associated or "packaged" with the device determines the cost that the provider of the device(s) charges.
- For a complete listing of official AIN ID tags that have been approved, visit: http://animalid.aphis.usda.gov/nais/naislibrary/documents/guidelines/NAIS_ID_Tag_Web_Listing.pdf.

Visual eartags must include a panel for writing or imprinting each animal's herd management number. The herd management number is typically assigned by a producer for on-farm recordkeeping. If both the management number and the PIN with which it is associated are clearly visible on the tag, and the U.S. shield is visibly present, it can be considered official; if the management number is used by itself, it is not official.

Animal Tracing

- Variable depending on what, if any, additional services the producer elects to use within the State or private animal tracking database.
- Some ATDs plan to charge per animal, others may elect to charge per record submitted, and some will not charge anything.
- Most ATDs provide other services, thus producers must examine cost and services.
  - The ATDs provide animal identification and movement information at no charge to State, Territory, Tribal, and Federal Animal Health officials.
  - The USDA-APHIS-VS Animal Trace Processing System (ATPS) became operational in March 2007. Formal agreements with the private sector and the States are in progress and will be listed on the NAIS Web site http://www.usda.gov/nais.

NAIS Data Storage and Retrieval

Data storage is a major component of NAIS. Since this is a cooperative Industry-State-Federal partnership, different data are stored at each level. Each partner plays a key role in the storage and retrieval of premises identification, animal identification, and animal movement data.

Data Stored at the Federal Government Level

USDA-APHIS-VS allocates the PIN and the AIN.

The National Premises Information Repository (NPIR) stores:

- National PIN
- Name of entity
- Owner or appropriate contact person
- Street address, city, State, and Zip or postal code (or latitude/longitude coordinates) of the premises
- Contact phone number
- Operation type
- Species at premises
- Date activated, date retired, and the reason retired
- Alternative phone numbers

The AIN Management System stores:

- AINs assigned to each authorized AIN device manufacturer

Data Stored by States/Private Industry

The States and private entities will operate and store information in the animal tracking databases (ATD). USDA will not hold and, therefore, cannot distribute this information. Federal law protects individuals' private information and confidential business information from public disclosure.

The ATD will store:

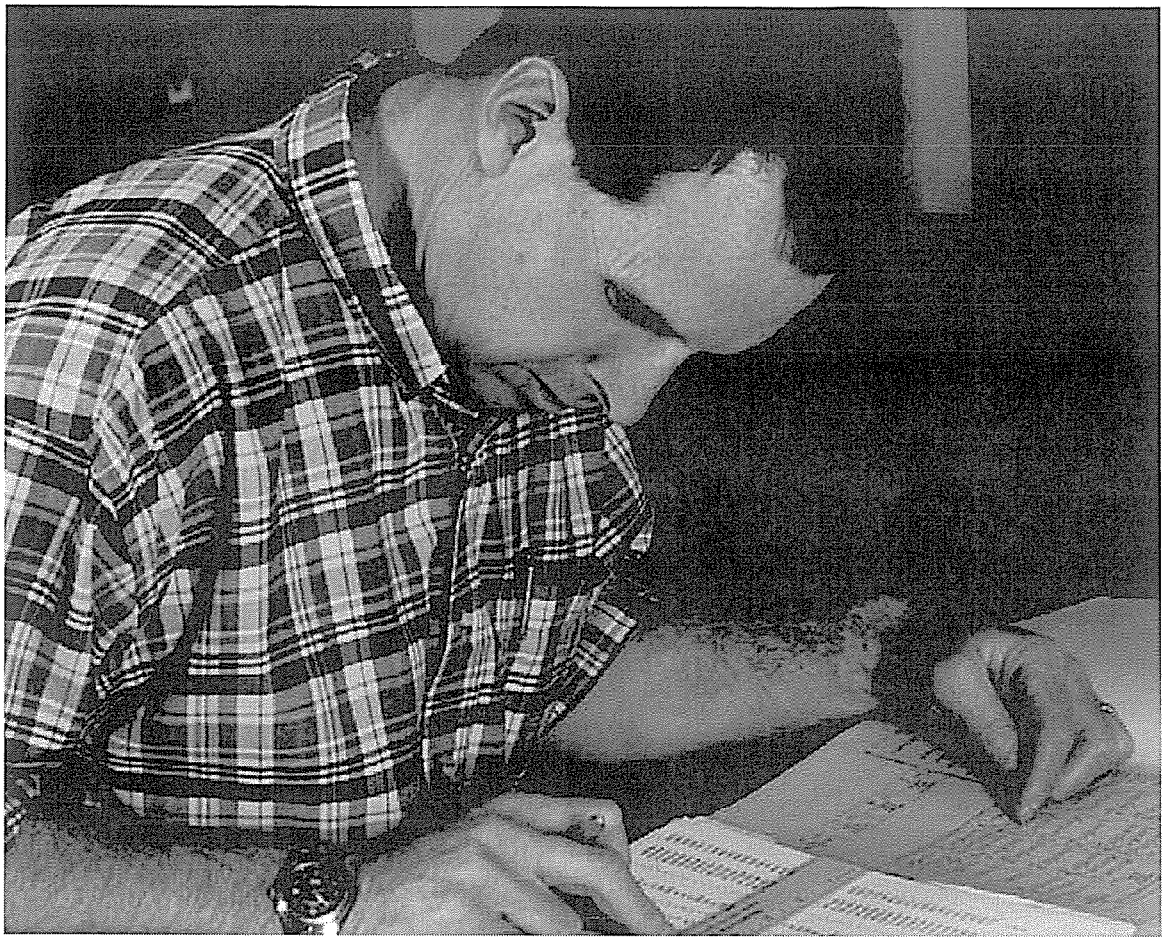
- Animal identification number
- Animal location (PIN)
- Date of the event
- Event itself (move-in, move-out, etc.)

If USDA needs animal movement and location information to respond to an animal disease issue, the Department will request the data only for animals involved in the animal health event of concern.

The ATDs have the capacity to store much more information for each animal if the animal owner chooses to utilize the service. This includes information such as:

- Animal-specific data (age, species, sex, etc.)
- Production parameters (i.e., carcass information, health records, expected progeny differences [EPDs])

However, while some of this information might be helpful in a traceback situation, it is not required for participation in NAIS, nor is it the purpose of a national animal identification system.



Data Stored by Veterinarians/Animal Owners

The goal of NAIS is enhanced animal health through identification and tracing. As always, veterinarians and animal owners are encouraged to keep records related to treatment, vaccinations, production data, change of ownership, and animal movements. Should a disease outbreak occur before the full implementation of all three components of NAIS, this additional information can also be useful to animal health authorities during an investigation. It could mean the difference between complete depopulation and a temporary quarantine for producers.

Data Retrieval: Animal Trace Processing System (ATPS)

Animal health officials will request only animal movement and location data from ATDs using the ATPS when there is an animal health event. Each ATD systematically checks the Web Service for an electronic "request for information" that would provide the search criteria.

It is important to understand that NAIS is not a "real-time" tracking system for animals. Animals are not continuously observed by the Government, and the RFID devices are only activated and read when exposed to an RFID reader.

The ultimate goal is to have complete information for conducting the disease investigation within 48 hours of discovery. The immediate objectives of NAIS are to advance tracing capability toward that goal.

Government agencies will not have constant, continuous access to the locations of animals in NAIS. State and Federal Animal Health Officials will use the ATPS only in the following situations:

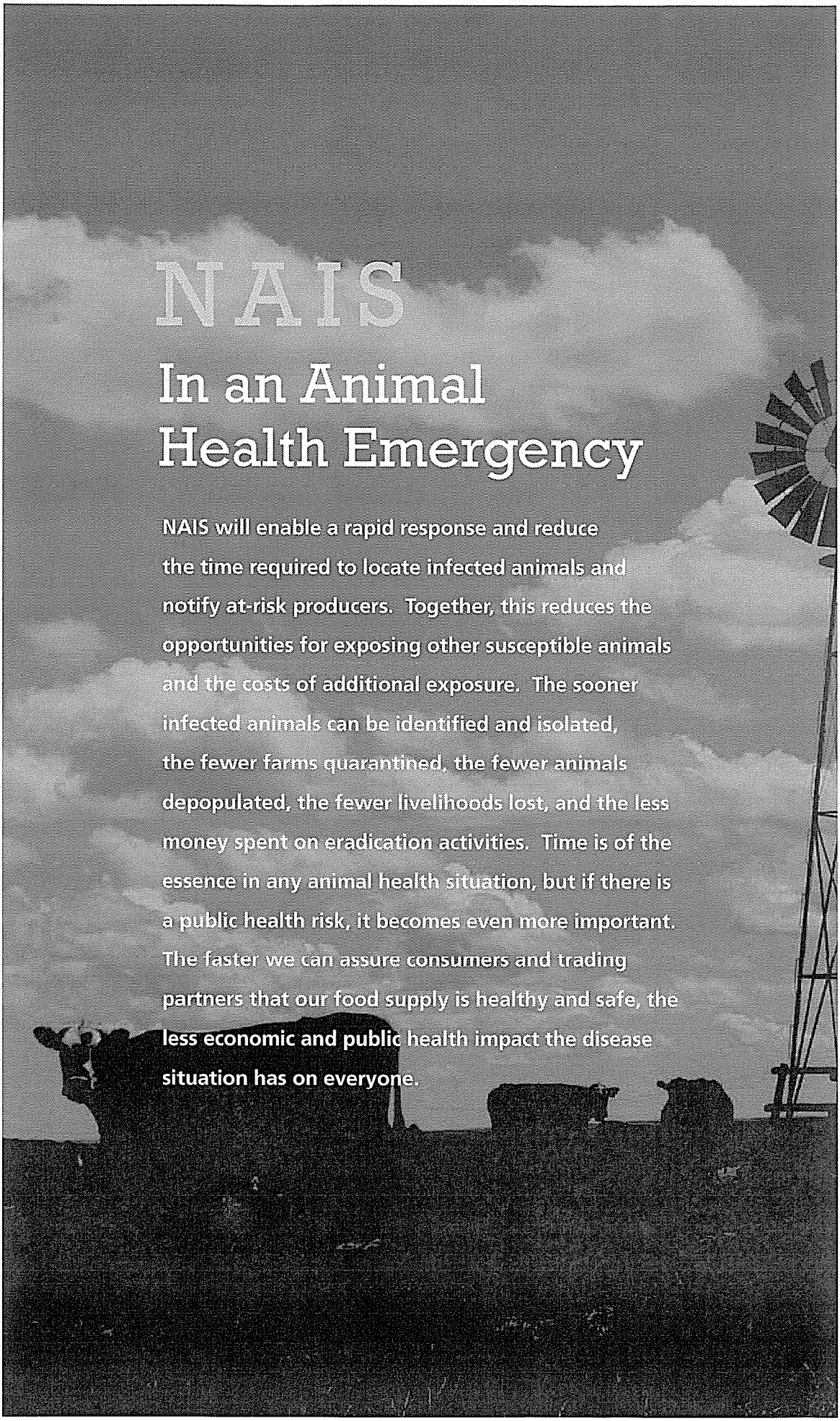
- An indication (suspect, presumptive positive, etc.) or confirmed positive test of a foreign animal disease;
- An animal disease emergency as determined by the Secretary of Agriculture and/or State departments of agriculture; or
- A need to conduct a traceback/traceforward to determine the origin of infection for a program disease (brucellosis, tuberculosis, etc.).

ATDs and the Animal Trace Processing System (ATPS)

When private and State-held databases receive a request, it is automatically processed and a report is returned to the ATPS within 15 to 30 minutes. If records meeting the search criteria are found, the information will be contained in an encrypted electronic record and sent back to the ATPS.

The ATPS receives and compiles the information from each private and State database. In certain disease cases, additional requests to each ATD will be necessary.

For example, the cohort of the animal at Premises 1234XYZ, 840 123 456 789 012 moved to Premises ABC6789. A second request for information for animals that came into contact with this cohort animal and all others found in the first request would be sent to each private and State database. This process might need to be repeated numerous times to obtain all of the necessary information. While it takes time to process requests, the entire process of animal traceback can be completed in a 24 to 48 hour period—much more rapidly than today's system.


NAIS
In an Animal Health Emergency
NAIS will enable a rapid response and reduce the time required to locate infected animals and notify at-risk producers. Together, this reduces the opportunities for exposing other susceptible animals and the costs of additional exposure. The sooner infected animals can be identified and isolated, the fewer farms quarantined, the fewer animals depopulated, the fewer livelihoods lost, and the less money spent on eradication activities. Time is of the essence in any animal health situation, but if there is a public health risk, it becomes even more important. The faster we can assure consumers and trading partners that our food supply is healthy and safe, the less economic and public health impact the disease situation has on everyone.

Without NAIS

In the spring of 2007, pseudorabies (PRV) was diagnosed in Clark County, Wisconsin, on two farms—the first case in domestic swine since its eradication from the United States in 2005. Wisconsin State law requires premises identification, and statewide, a majority of premises are registered. When the PRV outbreak occurred, officials soon realized that only half of the 62 sites in this particular 5-mile radius were registered. Instead of being able to immediately locate all potentially exposed swine, it took an additional 4 days of phone calls and farm visits to those unregistered premises. Every additional day costs money, both to the producers who were not allowed to move their animals and to the State of Wisconsin that conducted the investigation. Premises registration could have alleviated both of these issues.

Without animal identification and animal tracing, more personnel and more time are required to interview animal owners and veterinarians and to go through health certificates to trace where a suspect animal, and other potentially exposed animals, may have been. Depending on available resources, this process could take several days, weeks, or even months of manual searching to complete a disease investigation. With each day that passes, the disease spreads further, and increased numbers of animals/herds are exposed, directly impacting more producers. Additionally, what if this disease had zoonotic concerns associated with it? The inability to quickly address an emerging animal disease can have negative economic and domestic/international trade implications for the livestock industry and governments and potentially impact public health. NAIS will ensure that animal disease investigation efforts are as efficient, comprehensive, and accurate as possible.

Summary

NAIS is a voluntary information system that has the potential to provide producers and veterinarians with timely information in an animal health situation, support State and Federal disease response efforts, and enable the livestock and poultry industries to respond quickly and minimize the health and economic effects of animal disease outbreaks.

NAIS will allow for rapid tracing of animals in response to an animal health event involving a foreign animal, zoonotic, or domestic disease. NAIS will also help limit the scope and expense of the outbreak by minimizing the impact on domestic and foreign markets, as well as public health. USDA's long-term goal is to establish a system that can identify all premises and animals that have had direct contact with a foreign animal disease or a domestic disease of concern within 48 hours of discovery. Accredited veterinarians participate in disease eradication and control programs, into which NAIS standards are being incorporated. As this system develops and evolves, accredited veterinarians need to understand its components, remain up-to-date as information becomes available, know how it will be utilized in animal tracing, and identify opportunities to participate during the implementation and integration of NAIS.

Acronyms

AIN	Animal Identification Number
APHIS	Animal Plant Health Inspection Service
ATD	Animal Tracking Database
ATPS	Animal Trace Processing System
BSE	Bovine Spongiform Encephalopathy
CBEP	Cooperative Brucellosis Eradication Program
COOL	Country of Origin Labeling
CVI	Certificate of Veterinary Inspection
DNA	Deoxyribonucleic Acid
EIA	Equine Infectious Anemia
EPDs	Expected Progeny Differences
FAQ	Frequently Asked Questions
GIN	Group/Lot Identification Number
ID	Identification
NAIS	National Animal Identification System
NPIR	National Premises Information Repository
NPN	Non-Producer Participant
eCVI	electronic Certificate of Veterinary Inspection
OIE	World Organization for Animal Health
PIN	Premises Identification Number
PRV	Pseudorabies
PVP	Process Verified Program
QSA	Quality Systems Assessment
RFID	Radio Frequency Identification
TB	Bovine Tuberculosis
USDA	United States Department of Agriculture

Factsheet

National Animal Identification System (NAIS)

What is NAIS?

NAIS is a modern, streamlined information system that helps animal health officials respond quickly and effectively to disease outbreaks or animal health events in the United States. NAIS—a State-Federal-Industry partnership—is designed to:

- Increase the United States' disease response capabilities
- Limit the spread of animal diseases
- Minimize animal losses and economic impact
- Protect producers' livelihoods
- Maintain market access

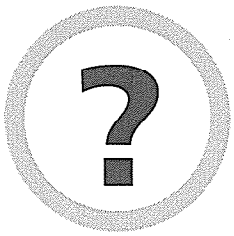
Why is NAIS important?

In order to respond quickly and effectively to an animal disease event (whether it is a single incident or a full scale outbreak), animal health officials need to know which animals are involved, where they are located, when they were there, and what other animals might have been exposed. NAIS provides standards for identifying both animals and locations, and when coupled with electronic resources to retrieve the data, enhances animal disease traceability. The sooner reliable data are available, the sooner affected animals can be located, appropriate response measures can be established, and disease spread can be halted.

Does the ability to trace diseases need improvement?

Today, many disease response and animal traceback efforts are time-consuming, costly, and difficult. Tracing infected animals often involves an exhaustive search of available records and documents—most of which are paper-based—as well as interviews with producers, market operators, harvest facility owners/operators, veterinarians, and others involved with the care and management of the animal(s) in question. Additionally, these records are not consistent in nature or standardized on a national level. And while many animals may possess some form of identification (eartag, tattoo, brand, etc.), those identification methods provide only minimal information that could be used to successfully trace a disease to its source.

Disease tracing involves the use of modern technologies to collect, store, and make available data that animal health officials need to conduct animal disease surveillance, eradication, and control programs. A reliable and cost-effective information system equips officials to trace the movement of diseased animals and identify other potentially exposed animals in order to contain disease. Fundamental to this system is accurate and retrievable identification of as many animals as possible.



Did you know?

- Participation in State/Federal Cooperative disease programs has decreased as diseases are eradicated. For example, less than 12 percent of the U.S. calf crop is officially identified using brucellosis vaccination eartags.
- An animal can be identified multiple times for multiple purposes yet still not be fully traceable. This is caused when identification methods are not universal, and the systems can't "talk" to each other.

How do I participate in NAIS?

1

Obtain a Premises Identification Number (PIN).

To obtain a PIN, contact your State, Territorial, or Tribal NAIS Administrator. Participants may request a PIN by completing the application form online or by mailing or faxing the form to their State, Territorial, or Tribal NAIS contact. Information on NAIS contacts in each State is available at the following link:
http://animalid.aphis.usda.gov/nais/contact_us/directories.shtml.

2

Identify your animals.

After you have obtained a PIN, you can participate in the second component of NAIS—animal identification. The only requirement is that you use NAIS-approved devices/tags. These devices feature 15-digit Animal Identification Numbers (AINs) that are unique to each animal. Group/lot Identification Numbers (GINs) are used in species that typically move through the production chain as a group. A list of authorized devices and manufacturers is available at the following link:
http://animalid.aphis.usda.gov/nais/animal_id/ain_mngt_sys.shtml.

3

Report certain high-risk animal movements.

You may elect to report certain types of animal movements to State or privately owned animal tracking databases (ATDs). USDA realizes that attempting to record all animal movements is not practical, nor is it the intent of NAIS. Rather, the focus of NAIS is on the type of movement and its potential impact on spreading a disease. A list of the types of movements that should be reported can be found in the NAIS *User Guide,* available at:
http://animalid.aphis.usda.gov/nais/naislibrary/userguide.shtml.
A list of available ATDs may be found at:
http://animalid.aphis.usda.gov/nais/naislibrary/documents/guidelines/NAIS_Interim_ATD_Listing.pdf.

Additional Information

For more information about NAIS, contact:

USDA, APHIS Veterinary Services
4700 River Road, Unit 43
Riverdale, MD 20737-1231
Telephone (301) 734-0799
Fax (301) 734-7964
www.usda.gov/nais

Frequently Asked Questions (FAQ)

Premises Registration

Q: What is premises registration?

A: The first component of NAIS is premises registration—an effort to establish an accurate, current record of all locations in the United States where livestock and/or poultry are raised, housed, or boarded.

Q: What is a premises identification number (PIN)?

A: A PIN is a nationally unique, 7-digit code that includes both letters and numbers. Similar to a rural 911 address used by first responders to pinpoint the location of an emergency, the PIN allows animal health officials to quickly location animals that may be affected by an animal disease event. Knowing where animals are actually located—rather than the mailing addresses of their owners—is the key to rapid, accurate, and cost-effective disease response.

Q: Am I required to get a PIN?

A: NAIS provides the opportunity for producers that are not part of a disease program to voluntarily participate in national health safeguarding efforts.

To standardize data, USDA is using NAIS data elements, including the PIN, for the administration of Federal disease programs. A PIN is not required if the animal at the premises is not in a federally-regulated disease program.

Individual States may choose to require PINs within their State, based on local needs.

Q: What will it cost?

A: Obtaining a PIN is free.

Q: Why should I get a PIN?

A: All livestock producers and animal owners are encouraged to obtain a PIN, regardless of the number of animals present, because animal diseases (such as avian influenza, foot-and-mouth disease, and vesicular stomatitis) can spread whether an animal leaves its home premises or not.

Q: How do I get a PIN?

A: The application process is quick and simple—it requires completing a short form with your contact information. The basic information you will be asked to provide includes:

- Name of entity
- Contact person for premises
- Street address, city, State, and Zip or postal code of the premises
- Contact phone number
- Operation type
- Species at premises
- Date activated
- Alternative phone numbers

Once the form is completed and the information is validated, you will be issued a nationally unique premises identification number, or PIN.

Premises registration forms are available from your State, Territorial, or Tribal NAIS Administrator and on department of agriculture Web sites in many States. To contact the NAIS Administrator in your area, click on the following link or cut and paste it into your Web browser:
http://animalid.aphis.usda.gov/nais/contact_us/directories.shtml

Q: How will USDA and others use my PIN?

A: Animal health officials can use premises information to quickly locate animals that have been exposed to a disease or may be at risk of exposure. This information allows them to better assess the circumstances, inform producers as necessary, take precise actions to address the situation, minimize hardships, and speed disease eradication efforts. Premises information can also be used to quickly define which regions of our country are not affected by an outbreak (regionalize or compartmentalize)—keeping markets open for unaffected producers and preventing unnecessary movement restrictions.

It is important to remember that individuals' private information and confidential business information are protected from disclosure by Federal law.

Additional Information

For more information about NAIS, contact:

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Frequently Asked Questions (FAQ)

Animal Identification

Q: What is animal identification?

A: The second component of NAIS is animal identification, which provides a uniform numbering system for identifying animals.

Q: What is an animal identification number (AIN)?

A: The AIN is a unique 15-digit number that stays with the animal for its lifetime. This number links the animal to its premises of origin (birthplace or location where the animal was first identified). The AIN is imprinted on identification devices with a space between every third digit to improve readability. For example: 840 234 567 890 123

- The first three digits of the AIN comprise the country code—840 is the United States.
- "840" AINs can only be acquired by locations that have a PIN.

Together, the 15 digits provide a unique identifier for the animal anywhere in the world.

Q: Do I need to identify my animals?

A: Animals that are moved from one location to another, where the risk of disease exposure increases (e.g., auctions, feedlots, fairs, sporting events, or veterinary clinics), should be identified. Some animals may be identified individually or as a group.

Identification devices are available for use with the following species: Cattle and Bison, Swine, Sheep and Goats, Cervids (deer and elk), Equines (horses, mules, donkeys, burros), and Camelids (llamas and alpacas).

Household pets (cats and dogs) and animals not listed above (with the exception of poultry) do not need to participate in the animal identification portion of NAIS.

Q: What is an "840" AIN device?

A: "840" AIN devices/tags meet NAIS standards and have been approved for use in system. They are available in radio frequency identification (RFID) tags and injectable transponders, as well as visual-only tags.

"840" AIN devices, with the exception of injectable transponders, must contain:

- the 15-digit animal identification number (AIN) bearing the "840" prefix,
- the U.S. Shield, and
- the words, "Unlawful to Remove".

Q: Why should I choose 840 AIN devices over other available forms of ID?

A: Producers and animal owners should consider using 840 AIN devices whenever individual animal ID is needed. Animal health officials are able to use the AINs contained on NAIS-approved devices, in conjunction with PINs, to quickly determine where suspect animals are located and what other animals might have been exposed. The use of 840 AIN identification devices improves disease traceability and enhances national animal disease response capabilities.

Q: Where can I purchase 840 AIN devices?

A: Producers and owners should contact authorized AIN manufacturers for the AIN device managers in their area. A list of authorized AIN devices and AIN manufacturers is available at the following link: www.usda.gov/nais/840.

Q: How much do 840 AIN devices cost?

A: The costs associated with animal identification vary depending on animal species and method of identification selected by the producer/owner. For example: visual plastic eartags cost ~$1 to $2; button-like radio frequency eartags cost ~ $2 to $3; and injectable transponders cost up to ~$20. Additional costs may be incurred if the producer/animal owner requires assistance in applying the devices.

Q: How do I apply 840 AIN devices?

A: Identification devices can be applied by the owners themselves or by tagging service providers; additionally, owners can use the services of an approved tagging site provider or veterinarian to apply the devices to their animals. Livestock owners should first check with State or Tribal animal health authorities to find out what animal identification options and requirements may already be in place in their State or Tribe.

Q: Can I use 840 AIN devices for other purposes?

A: 840 AIN devices can be used anytime official individual animal ID is needed. These devices equip you to use the same identification system for more than one purpose, including participation in State/Federal Cooperative animal health programs; in marketing programs such as age-, source-, and process-verification, quality assurance, or Country of Origin Labeling (COOL); on official paperwork such as Certificates of Veterinary Inspection (CVIs) or health certificates; and, in genetic programs and breed registries.

Q: Are there any restrictions regarding the use of 840 AIN devices?

A: 840 AIN devices are official and cannot be removed from the identified animal or passed on to another person, such as a neighbor. Producers and owners should keep track of the devices for recordkeeping purposes. 840 AIN devices can only be used on animals born in the United States.

Additional Information

For more information about NAIS, contact:

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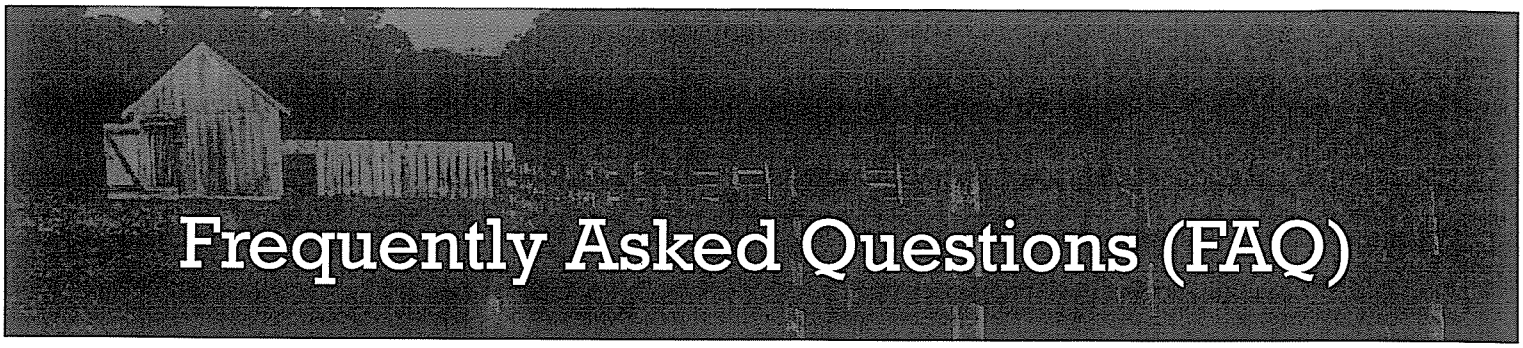

Frequently Asked Questions (FAQ)

Animal Tracing

Q: What is animal tracing?

A: Animal tracing is the ability of animal health officials to use movement records to quickly determine where infected animals have been and what other animals have come into contact with them. Animal tracing makes it easier to determine the scope of an animal disease event and locate potentially infected or exposed animals more quickly.

Q: Am I required to report animal movements?

A: In NAIS, it is your choice to report animal movements. If you do choose to report an animal movement activity, you can choose which of the NAIS-compliant Animal Tracking Databases (ATDs) you would like to use.

However, NAIS does not replace or take precedence over State brand laws or other State reporting requirements regarding animal movement activity.

Q: Why should I report animal movements?

A: When there is a disease outbreak or animal heath event, the ATDs provide timely, accurate records that show where your animals have been and what other animals have come into contact with them. This will allow animal health officials to know whether or not your animals might potentially be affected and take appropriate steps to protect their health. Your animals can also be excluded from disease suspicion.

Q: What types of movements should be reported?

A: The suggestions on which movements to report are based upon the risk of disease transmission.

Movements of your animals to other locations (or premises) where they come into contact with numerous other animals from various locations is referred to as "commingling." When animals commingle, the chance of coming into contact with or spreading disease is increased, and therefore, these movements are the most important to report.

Movements of animals within your own farm/ranch boundaries, including non-contiguous locations if under the same management, have a lower risk of animal disease transmission. These would be a lower priority to report, if they are reported at all. Animal movement activity and location changes can also be recorded in production management records as part of a herd/flock biosecurity program.

Q: How do I report animal movements?

A: Reporting varies depending on the ATD used. Contact information for all NAIS-compliant ATDs can be found at: http://animalid.aphis.usda.gov/nais/naislibrary/documents/guidelines/NAIS_ATDs_for_web.pdf

Q: Is there a cost associated with reporting animal movements?

A: There may be a cost associated with using an ATD to report animal movements, depending on what system is used. Some ATDs are private, while others are managed by a State department of agriculture. You will need to contact the ATD for pricing information: http://animalid.aphis.usda.gov/nais/naislibrary/documents/guidelines/NAIS_ATDs_for_web.pdf

Q: How will USDA and others use this information?

A: During an animal health event where a disease traceback or investigation is required, authorized State and/or Federal animal health officials will request necessary animal movement data from the various private or State-owned systems using the Animal Trace Processing System (ATPS). The ATPS, a Federal software application, is used to post a request for information regarding the location and movements of suspect animals.

Records specifically related to the investigation and defined in the request will be made available to animal health officials. This involves only the AIN/GIN, PIN, date, and event code such as move-in, move-out information, for specific animals on specific dates.

The animal health officials will use this information to locate potentially infected animals and take appropriate action to prevent further spread of the disease.

Additional Information

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1

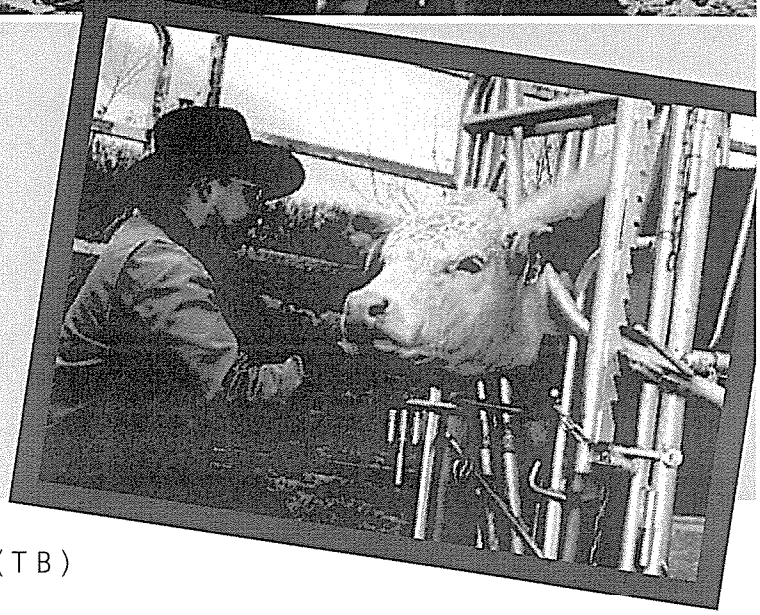
Animal Disease in the Media

AN OPPORTUNITY TO DISCUSS OBTAINING A PIN

BACKGROUND

Animal disease in the United States and overseas is a frequent topic in the news. Media coverage provides a great opportunity to talk about disease risk and the producer's role in disease control.

Highlighting recent disease outbreaks can illustrate how important it is for animal health officials and the industry to continue improving disease traceability.



BOVINE TUBERCULOSIS (TB)

SETTING THE SCENE:

Your client, Al Sanford, owns a medium-sized beef cattle operation in Minnesota. Recently, bovine TB was discovered in Minnesota for the first time in more than 30 years. The outbreak has resulted in stricter movement controls and quarantines for operations throughout the State. Several hundred cattle from infected herds are being slaughtered. Al is concerned about the impact this outbreak will have on his operation and his State's beef industry. You start a conversation about bovine TB, hoping Al will consider registering his premises.

CONVERSATION STARTER:

"Have you been following the news on bovine TB?" you ask.

"Yeah, I can't believe it's back. I've got friends who have had their farms quarantined and may have their cows slaughtered. Why hasn't this disease been eradicated yet?" asks Al.

"For one thing, animal health officials lack the information they need to act quickly. Bovine TB is a good example. Recent TB investigations have taken more than 125 days to complete," you reply.

"I didn't realize it can take that long. What kind of information do they need?" asks Al.

?

DID YOU KNOW?

Since 2002, bovine TB has been detected in Arizona, California, Michigan, Minnesota, New Mexico and Texas, among other States.

While recent bovine TB disease investigations have taken approximately 125 days to complete, some investigations have remained open lasting more than 365 days. At least 2 States have recently had their TB accreditation status reduced, affecting producers in all 50 States.

KEY POINTS:

- Animal health officials need to know which animals are involved, where they are located, and what other animals might have been exposed.
- Animal disease outbreaks in our area can quickly shut down the movement of livestock and impact the livelihood of our State's families.
- We must improve our ability to trace, control, and eradicate animal disease in this country.
- The first step is signing up your premises—the geographic location where you hold animals.
- Signing up your premises means you will get information more quickly in the event of a disease outbreak.
- The basic information you will need to provide includes:
  - Name of entity
  - Contact person for premises
  - Street address, city, State, and Zip or postal code
  - Contact phone number
  - Operation type
  - Date activated
  - Alternative phone numbers
  - Species kept at the premises.

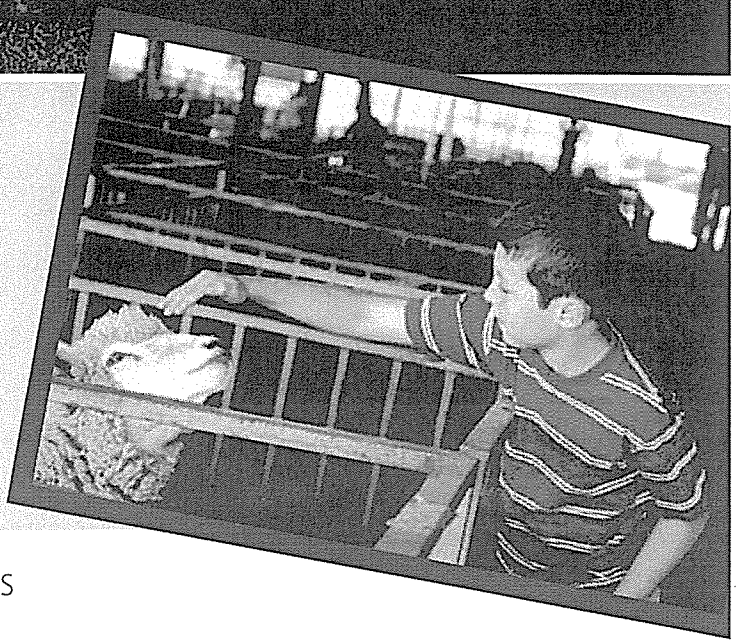
NEXT STEPS:

- Research the process for obtaining a premises identification number (PIN) in your State and be ready to share this information with clients.
- Go to www.usda.gov/nais/getPIN and find the contact for your State.
- Find out whether your State's department of agriculture Web site allows clients to sign up online.
- Contact the State and find out whether you can hand out registration forms in the field or obtain PINs on behalf of your clients as an authorized agent.

2

State and County Fairs

AN OPPORTUNITY TO DISCUSS OBTAINING A PIN



BACKGROUND:

Year after year, many of your clients showcase their animals at State and county fairs. These fairs bring together a variety of animals, including cattle, pigs, and horses, from numerous locations. These animals are at increased risk for disease exposure.

STATE AND COUNTY FAIRS

SETTING THE SCENE:

You're visiting Dale Thompson's swine operation today as he prepares for this year's county fair. He will be bringing several pigs to the fair, as he has done for years. You have the opportunity to inform Dale about the increased disease risks during the fair and how he can protect his animals.

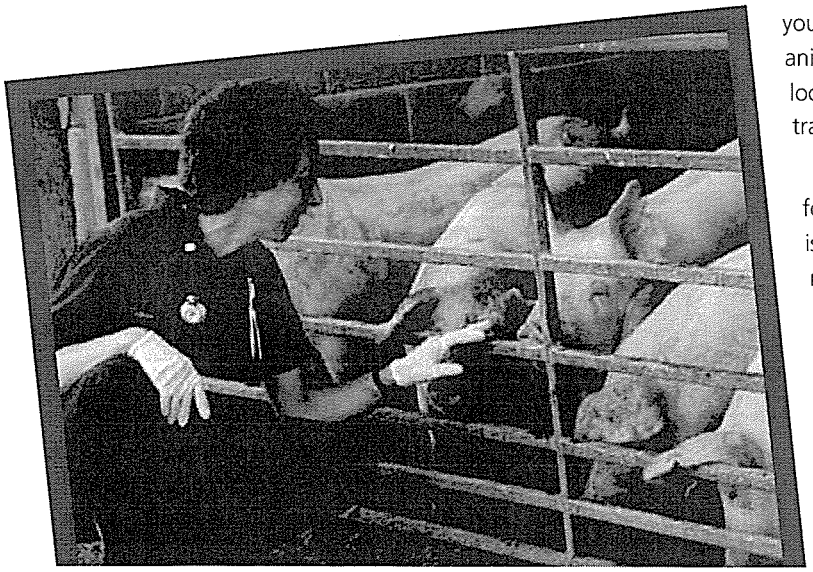
CONVERSATION STARTER:

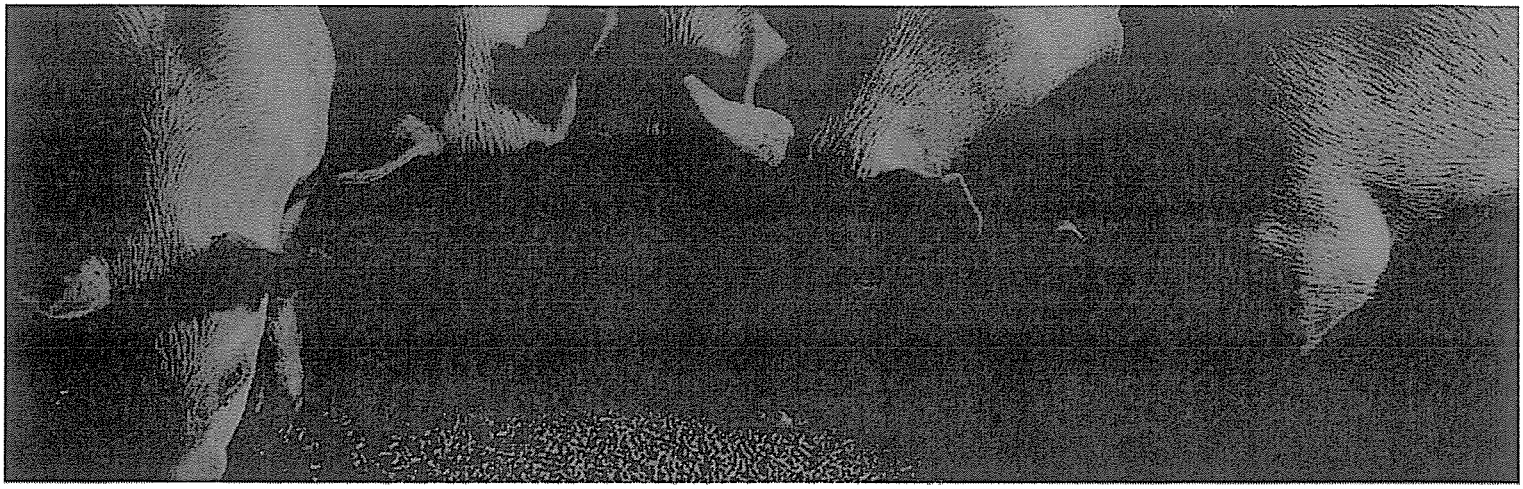
You begin the conversation by asking, "I bet you and your family are excited about taking your hogs to the county fair."

"We do look forward to it. That reminds me, I'm going to need health papers again this year," responds Dale.

"No problem. As we've discussed before, you know it's a risk. A high number of animals coming together in one central location like that can result in disease transmission," you say.

"Yeah, I know, but it's kind of a hobby for us. I better check to be sure nothing is new in the entry book regarding health requirements and testing. Anything new on the biosecurity front?" Dale asks.



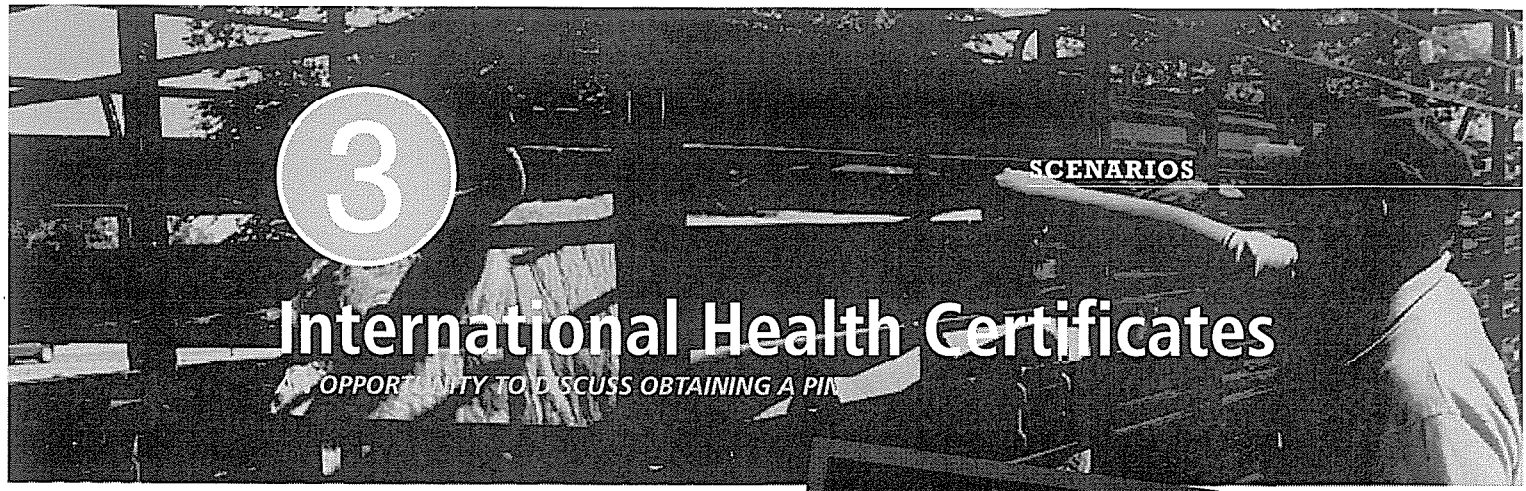


KEY POINTS:

- When animals are brought together from numerous locations, such as at a State or county fair, there is an increased risk of disease exposure or spread.
- Reviewing biosecurity practices on the farm during participation in high disease risk environments such as livestock exhibitions is important to herd health.
- In addition to testing and vaccinating your animals and receiving a certificate of veterinary inspection, you can protect your animals by registering your premises.
- When you register your premises, you will receive a premises identification number, also known as a PIN, that ensures:
  - Your animals will be associated with that PIN.
  - You will get information quickly if there is a disease outbreak.
- In an increasing number of livestock exhibition events, having a PIN may be a requirement for sale of market animals.
- Obtaining a PIN is simple and free.
- The basic information you are asked to provide includes:
  - Name of entity
  - Contact person for premises
  - Street address, city, State, and Zip or postal code of the premises
  - Contact phone number
  - Operation type
  - Date activated
  - Alternative phone numbers
  - Species kept at the premises.

NEXT STEPS:

- Research the process for obtaining a premises identification number (PIN) in your State and be ready to share this information with clients.
  - Go to www.usda.gov/nais/getPIN and find the contact for your State.
  - Determine if a PIN is required for participation at the specific livestock exhibition event.
  - Find out whether your State's department of agriculture Web site allows clients to sign up online.
  - Contact the State and find out whether you can hand out registration forms in the field.



3

SCENARIOS

International Health Certificates

AN OPPORTUNITY TO DISCUSS OBTAINING A PIN

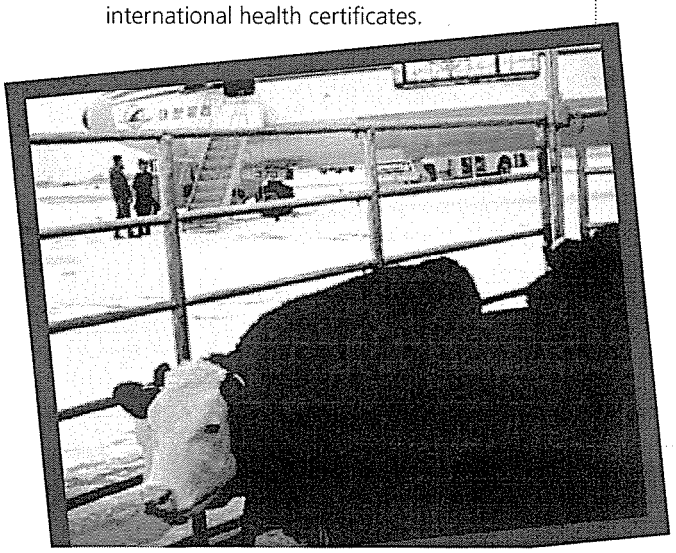
BACKGROUND

Large animal veterinarians are often asked to complete health certificates for livestock that are moving in and out of the country. Due to the increased risk for disease transmission during animal movement, USDA will soon require a premises identification number (PIN) for livestock import and export.

INTERNATIONAL HEALTH CERTIFICATES

SETTING THE SCENE:

Your client, George Anderson, recently began to ship his cattle outside of the United States. As a result, George has requested that you complete health certificates for his cattle. You plan on informing George of new USDA requirements when you discuss the international health certificates.



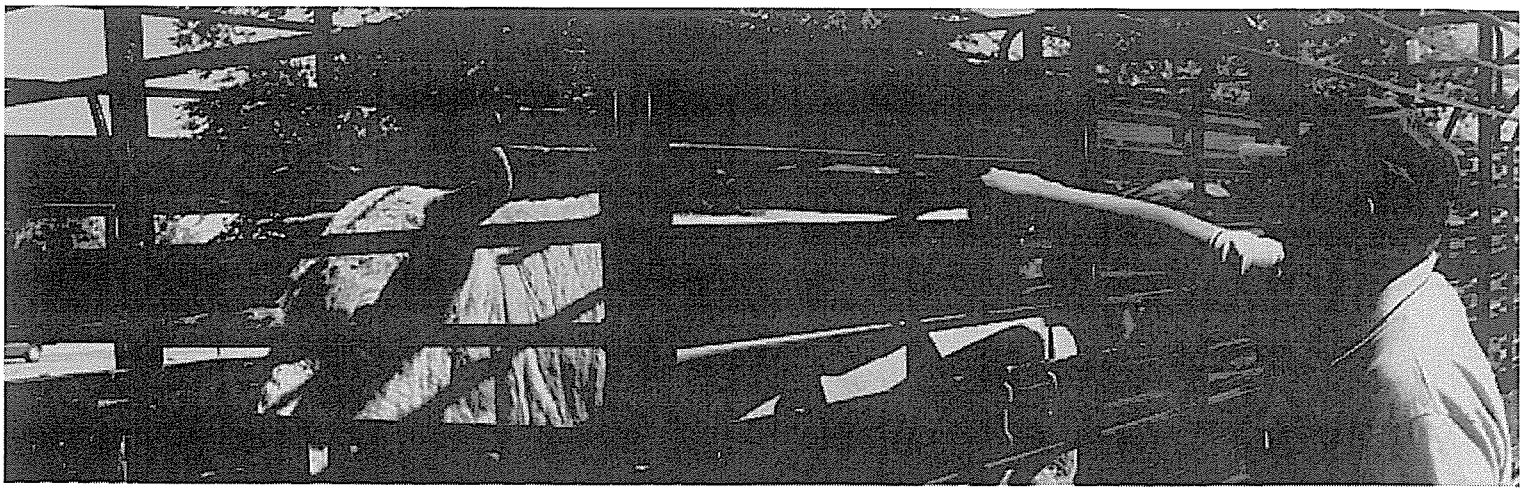
CONVERSATION STARTER:

"Here's the international health certificate you requested. While we're on the subject, I wanted to inform you that the Government is developing an additional requirement for filling out these forms," you begin.

"Really? What's new?" asks George.

"A premises registration number, or PIN, will be required for international health certificates," you respond.

"Why is the Government doing that? What's the incentive for me?" asks George.

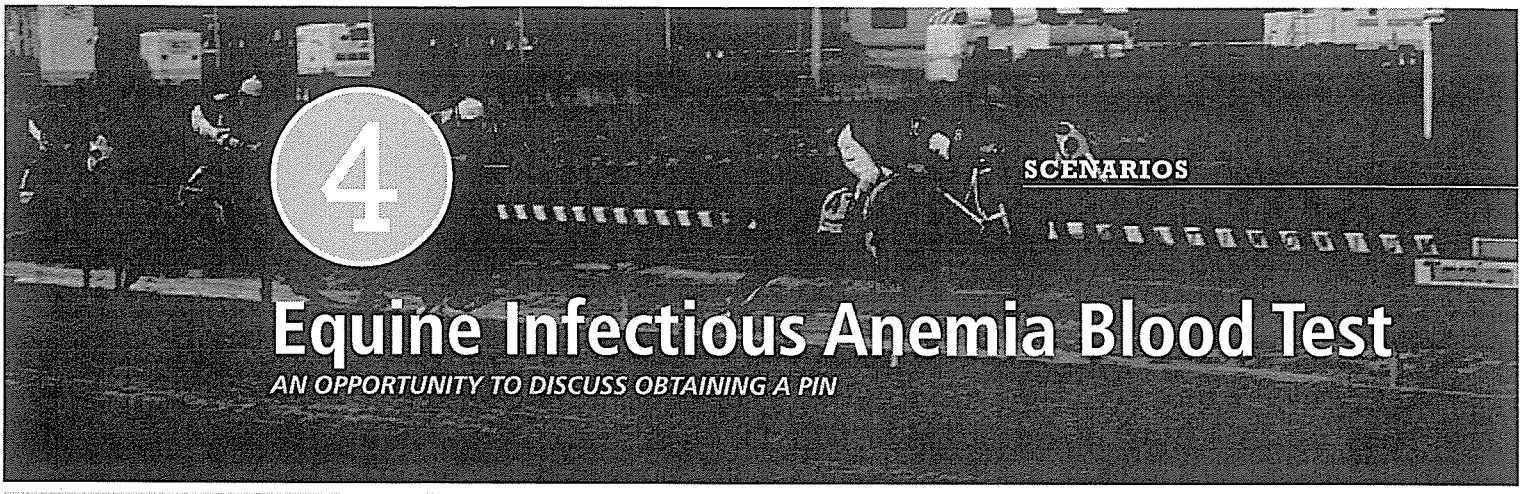


KEY POINTS:

- USDA is developing a regulation that will require a premises identification number, or PIN, for livestock import and export.
- Producers/owners will no longer be able to import or export livestock and poultry without having a PIN.
- USDA is implementing this regulation because it is important for managing disease risk.
- Premises registration will help protect the U.S. livestock population and ensure that you can continue trading overseas because it demonstrates tracing capability.
- You should register your premises with the State and obtain a PIN in advance of this regulation.
- Obtaining a PIN is simple and free.
- The basic information you are asked to provide includes:
  - Name of entity
  - Contact person for premises
  - Street address, city, State, and Zip or postal code of the premises
  - Contact phone number
  - Operation type
  - Date activated
  - Alternative phone numbers
  - Species kept at the premises.

NEXT STEPS:

- Research the process for obtaining a premises identification number (PIN) in your State and be ready to share this information with clients.
  - Go to www.usda.gov/nais/getPIN and find the contact for your State.
  - Find out whether your State's department of agriculture Web site allows clients to sign up online.
  - Contact the State and find out whether you can hand out registration forms in the field.



4

SCENARIOS

Equine Infectious Anemia Blood Test

AN OPPORTUNITY TO DISCUSS OBTAINING A PIN

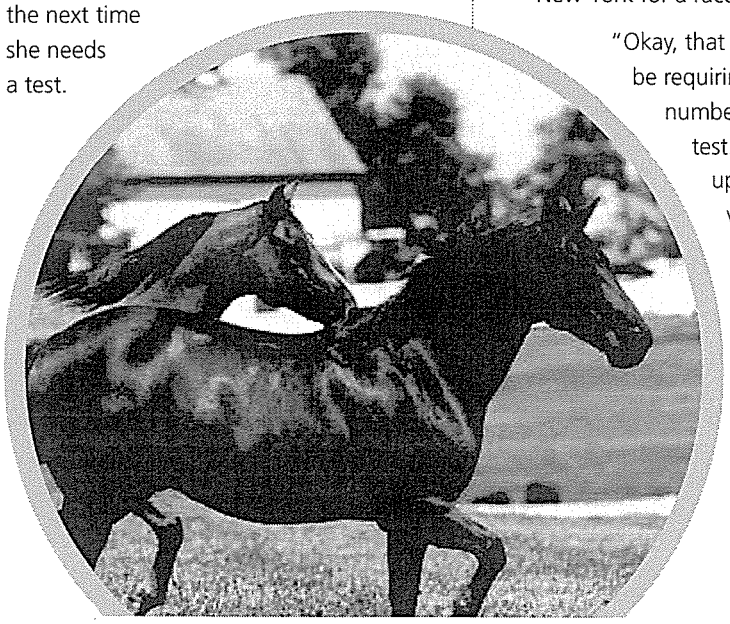
BACKGROUND

A blood test to check for Equine Infectious Anemia (EIA) is often required when a horse is moved from one location to another. The test, and the accompanying paperwork, can be time consuming and tedious. In the near future, the USDA, as recommended by the NAIS Equine Species Working Group, will require that horse owners have a premises identification number, or PIN, in order to be tested for EIA. This will facilitate traceability should a positive horse be detected.

EQUINE INFECTIOUS ANEMIA BLOOD TEST

SETTING THE SCENE:

As an equine practitioner, you are accustomed to filling out the forms required for EIA testing. You plan on telling your client, Karen James, about the USDA requirement the next time she needs a test.

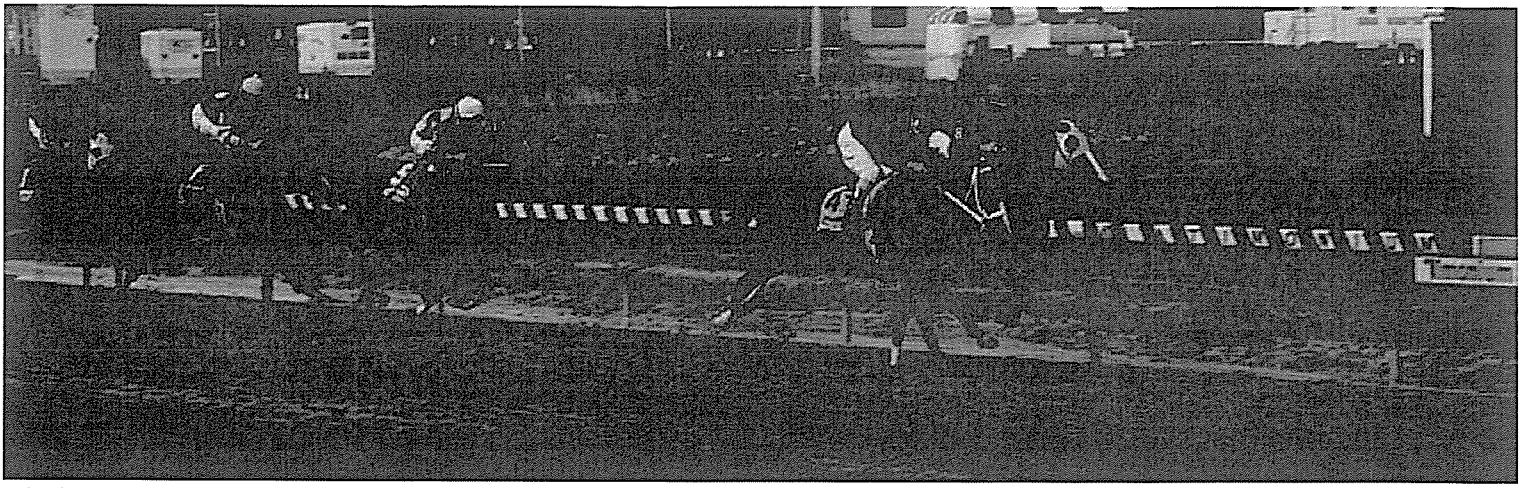


CONVERSATION STARTER:

"Hello, Karen. How have your horses been doing?" you ask.

"They are doing fine. But I do need to test my 3-year-old for EIA because I'll be shipping him to New York for a race soon," responds Karen.

"Okay, that reminds me. The USDA will be requiring a premises identification number, or PIN, for submitting the test. Do you know if the racetrack up in New York requires one as well?" you ask.



KEY POINTS:

- Horse owners will soon need a premises identification number, or PIN, in order to get an EIA test for their horses.
- The requirement for a PIN was a recommendation made by the NAIS Equine Species Working Group, which is composed of industry leaders and State and Federal animal health officials.
- PINs will likely be a requirement for health certificates as well.
- By registering and receiving a PIN, you will also ensure you are notified quickly if your horse is exposed to a disease or if other important equine diseases are diagnosed in your area.
- To register, contact your State department of agriculture and provide them with the following basic information:
  - Name of entity
  - Contact person for premises
  - Street address, city, State, and Zip or postal code
  - Contact phone number
  - Operation type
  - Date activated
  - Alternative phone numbers.

NEXT STEPS:

- Research the process for obtaining a premises identification number (PIN) in your State and be ready to share this information with clients.
  - Go to www.usda.gov/nais/getPIN and find the contact for your State.
  - Find out whether your State's department of agriculture Web site allows clients to sign up online.
  - Contact the State and find out whether you can hand out registration forms in the field.

5

Current Disease Program Participant

OPPORTUNITIES TO DISCUSS ANIMAL IDENTIFICATION

BACKGROUND

Chances are, you have a client who participates in a State/Federal animal disease program that uses official animal identification. These programs include, but are not limited to:

- Bovine Tuberculosis
- Brucellosis Vaccination and Testing
- EIA Testing
- Scrapie
- Chronic Wasting Disease
- Bovine Babesiasis (Texas Cattle Fever)

New 840 official devices are now used for multiple disease programs. This means that more than one disease can be traced using the same animal identification, increasing the value of program participation.

?

DID YOU KNOW?

The number of heifers vaccinated annually for brucellosis has decreased by more than 55 percent since 1992.

COOPERATIVE BRUCELLOSIS ERADICATION PROGRAM

SETTING THE SCENE:

For the past 20 years, your client, Ted Johnson, has participated in the Cooperative Brucellosis Eradication Program (CBEP). Brucellosis was once widespread among the cattle population near Ted's operation in western Colorado, and he's old enough to remember the stories about outbreaks in years past. The CBEP has been very successful at eliminating the disease. Much of its success can be attributed to the use of USDA official brucellosis vaccination eartags as a part of the official brucellosis calfhood vaccination process.

Ted is aware that many of his neighbors have stopped vaccinating for brucellosis, and he's considering dropping out of the program, too. You know that Ted would benefit from knowing that 840 AIN devices can be used for a number of purposes.

CONVERSATION STARTER:

"We've talked before about how I'm vaccinating fewer and fewer cattle for brucellosis. Seems like the more successful we are with these disease programs, the more people drop out. That's not necessarily a good thing," you say.

"Why is that?" asks Ted.

"The whole point of these programs is to trace disease and stop its spread," you explain. "Fewer officially tagged animals means it takes longer and longer to trace a disease to its source and control it."

"So the success of the program may actually be causing a problem for the cattle industry?" asks Ted.

KEY POINTS:

- The purpose of the CBEP and other similar animal health programs is to trace disease and stop its spread.
- Due to the success of these programs, however, fewer animals are being officially tagged. This is particularly a problem for the cattle industry and limits tracing capability, should the need arise.
- NAIS offers a simplified way to select one animal identification system that can be used for both official disease program work and for routine management and identification needs.
- You can use 840 AIN devices to participate in NAIS and animal health programs like the CBEP.
- You should contact an AIN device manager or reseller in your area to purchase 840 AIN devices. For more information, you can visit www.usda/nais/840.

NEXT STEPS:

- Research the process for purchasing 840 AIN devices in your State and be ready to share this information with clients.
  - Go to www.usda.gov/nais/840 and find the list of AIN Device Manufacturers and the current product list of NAIS-approved 840 devices.
  - If you are interested in selling and/or applying USDA 840 devices, refer to the "Steps to Becoming an AIN Device Manager/Reseller" document located at www.usda.gov/nais/840.

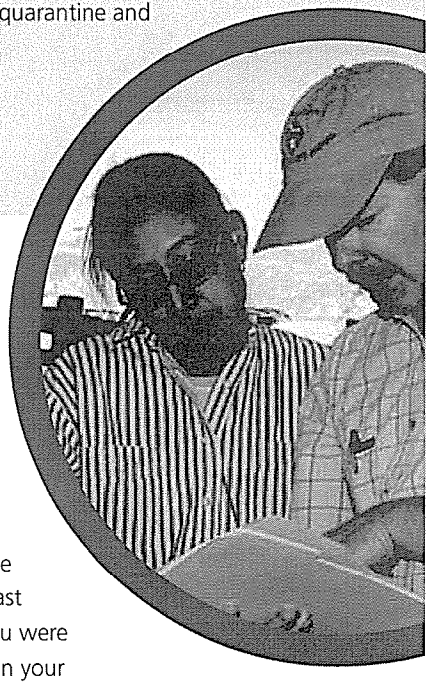
6 Recordkeeping

OPPORTUNITIES TO DISCUSS ANIMAL IDENTIFICATION

BACKGROUND

Common animal diseases are a fact of life wherever livestock or poultry are raised, held, or boarded. Individual animal producers and owners can't control or eradicate disease threats beyond their property boundaries on their own. But they can do their part to maintain accurate and complete production records.

Recordkeeping can make a difference during an animal disease outbreak. Using current and complete records, animal health officials can move quickly to identify and isolate diseased animals, and limit quarantine and depopulation.

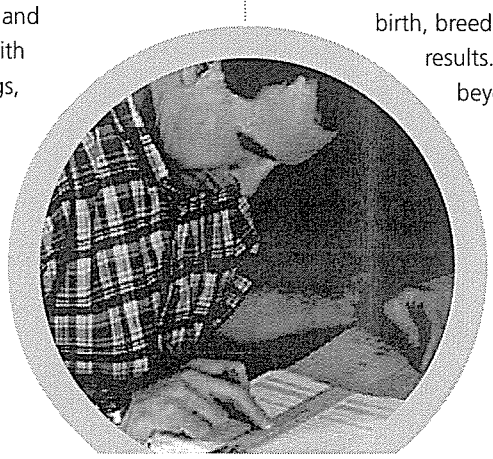


RECORDKEEPING

SETTING THE SCENE:

You are visiting Steve Taylor's beef operation today to pregnancy check his cows. You will have ample opportunity to chat with Steve during this visit, given the nature of the process and size of his herd. During previous visits, Steve has asked you general questions related to his production recordkeeping practices.

Today, you plan to take that discussion one step further. Steve recently registered his premises with NAIS and identifies his animals with on-farm production tags, but you doubt he has begun to think about nationally unique individual animal identification and movement recording.

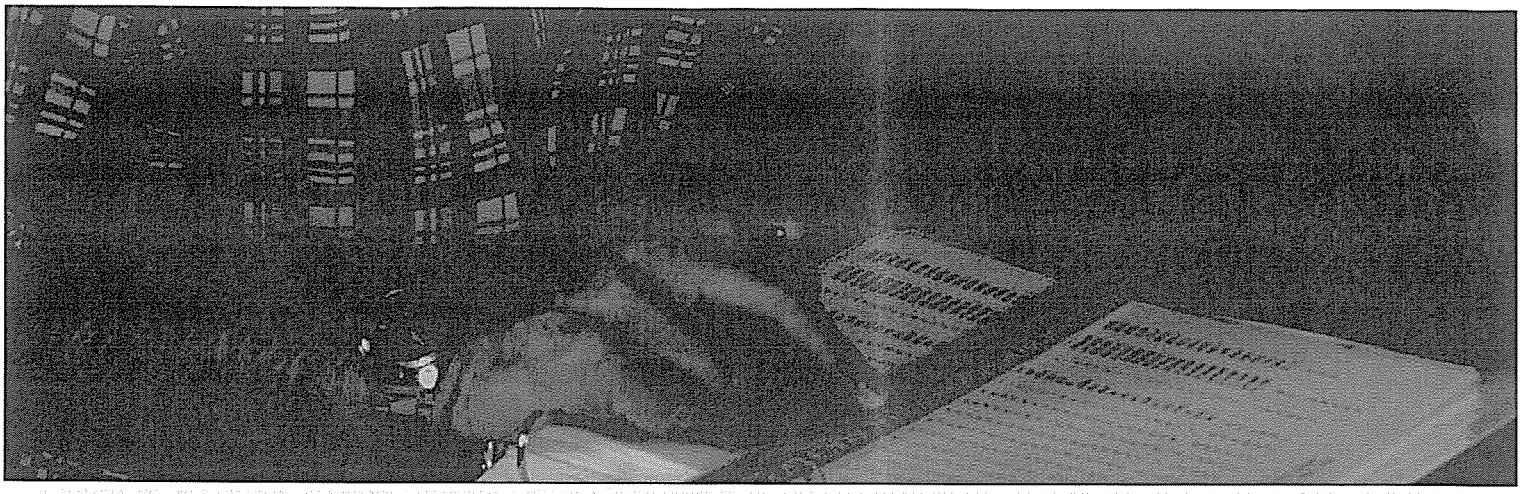


CONVERSATION STARTER:

Upon arrival at Steve's farm, you head over to begin setting up for the morning's work. After some brief small talk, you say, "Last time we talked, you said you were considering some changes in your recordkeeping. How's that going?"

"I maintain some basic records like date of birth, breed, sex, and pregnancy check results. But I don't keep much else beyond that," Steve responds.

"That's good," you say. "I'd like you to think about taking one more step."

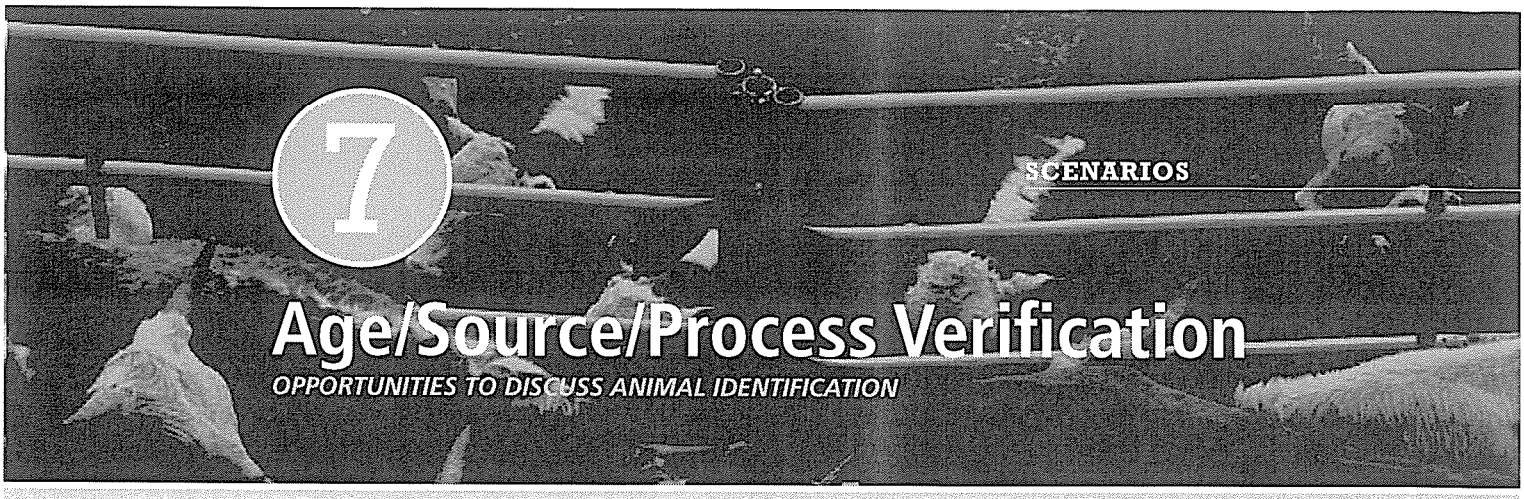


KEY POINTS:

- Animal health officials trace a disease from animal to animal and from one location to another.
- The more they know about an animal's origin and movement, the faster they can trace, control and eradicate a disease before it reaches your property.
- After registering your premises and receiving a PIN, you can start using 840 AIN devices for unique individual indentification.
- Using these devices and recording their animal identification numbers, or AINs, will greatly improve your records.
- By using 840 AIN devices, you will improve an animal health official's ability to quickly trace a disease.
- You should contact an AIN device manager or reseller in your area to purchase 840 AIN devices. For more information, you can visit www.usda/nais/840.

NEXT STEPS:

- Research the process for purchasing 840 AIN devices in your State and be ready to share this information with clients.
  - Go to www.usda.gov/nais/840 and find the list of AIN Device Manufacturers and the current product list of NAIS-approved 840 devices.
  - If you are interested in selling and/or applying USDA 840 devices, refer to the "Steps to Becoming an AIN Device Manager/Reseller" document located at www.usda.gov/nais/840.



7

SCENARIOS

Age/Source/Process Verification

OPPORTUNITIES TO DISCUSS ANIMAL IDENTIFICATION

BACKGROUND

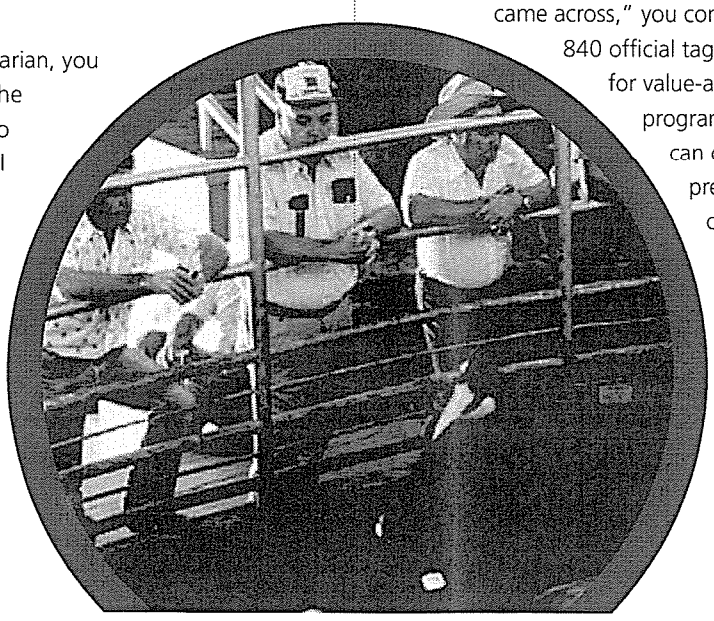
More and more producers are recognizing they can benefit from verifying their animals for age and source or for the processes under which they are raised. This is a trend that will most likely continue, because U.S. and foreign consumers are demanding it.

Of particular concern to producers is the issue of Country of Origin Labeling (COOL), which is contained in the 2008 Farm Bill. COOL requires the identification of a meat product's country of origin beginning September 30, 2008.

SETTING THE SCENE:

Your client, Dave Brown, owns a large cow/calf operation and is always looking for an edge on the competition. Recently, Dave began using radio-frequency identification (RFID) devices to assist in verifying his cattle for age and source. His timing is good, since COOL was included in the new Farm Bill. Your client is aware of this coming requirement and wants to be a step ahead.

As his veterinarian, you are always on the alert for ways to optimize animal health, while at the same time assist your client in improving his/her bottom line.

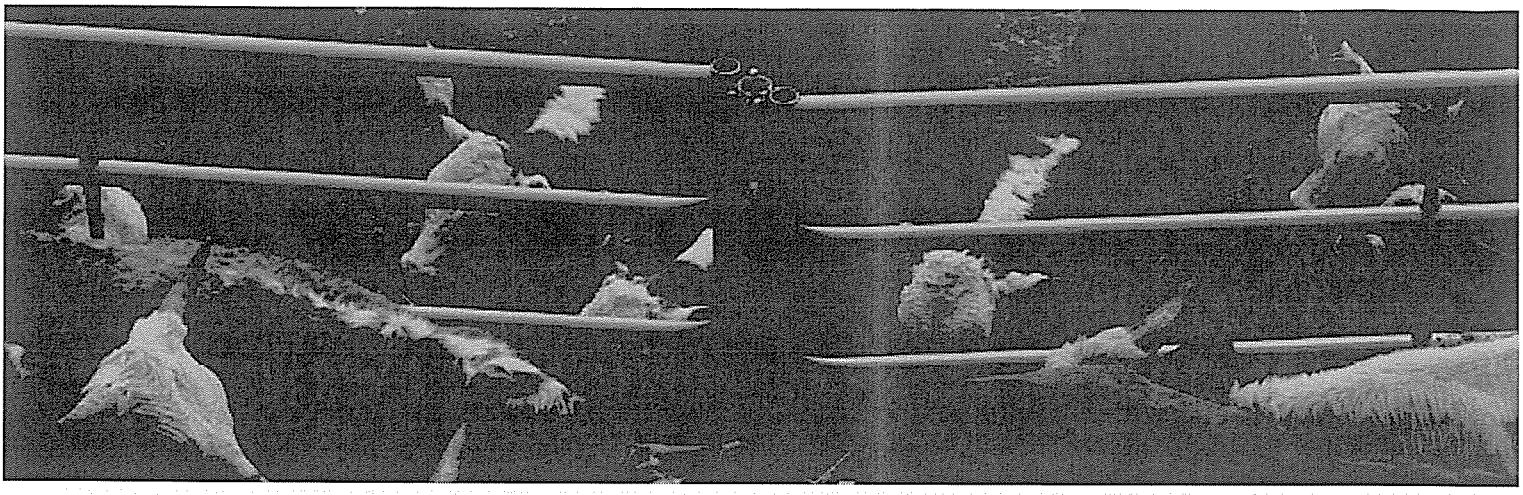


CONVERSATION STARTER:

"I see you've begun to use RFID devices for age and source verification. It seems more and more of my clients are doing the same thing. How is that working out for you?" you ask.

"It's been great. I'm getting a pretty substantial premium because of it," responds Dave.

"You'll be interested in some information I just came across," you continue. "These new 840 official tags can also be used for value-added verification programs. This means you can continue to get the premiums for your cattle and be able to use the same number for official disease program work, including health certificates, at the same time."



KEY POINTS:

- More and more producers are using RFID devices in age- and source-verification programs.
- 840 AIN devices can be used to:
  - support age-and-source-verification programs,
  - participate in official animal disease program work, and
  - support the marketing opportunities associated with COOL.
- You should contact an AIN device manager or reseller in your area to purchase 840 AIN devices. For more information, you can visit www.usda/nais/840.

NEXT STEPS:

Research the process for purchasing 840 AIN devices in your State and be ready to share this information with clients.

- Go to www.usda.gov/nais/840 and find the list of AIN Device Manufacturers and the current product list of NAIS-approved 840 devices.
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Discussion was concluded.)

Newsroom

News Release

Release No. 0108.09
Contact:
Nayyera Haq (202) 720-4623
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AGRICULTURE SECRETARY VILSACK SEEKS DIALOGUE WITH PRODUCERS AND STAKEHOLDERS ON NATIONAL ANIMAL IDENTIFICATION SYSTEM

WASHINGTON, April 15, 2009--Secretary of Agriculture Tom Vilsack today held a roundtable discussion with a variety of stakeholders representing the full spectrum of views on the National Animal Identification System (NAIS). The event kicks off a listening tour to gather feedback and input that will assist the Secretary in making decisions about the future direction of animal identification and traceability in the United States.

"Much work has been done over the past five years to engage producers in developing an animal identification system that they could support," said Vilsack. "However, many of the issues and concerns that were initially raised by producers, such as the cost, impact on small farmers, privacy and confidentiality and liability, continue to cause debate. In the spirit of President Obama's call for transparency in government, now is the time to have frank and open conversations about NAIS. We need to work collaboratively to resolve concerns and move forward with animal traceability."

USDA is seeking to engage stakeholders in an effort to hear not only their concerns but potential or feasible solutions to those concerns. The listening tour will seek input from communities throughout the country. As details for the tour are finalized, the information will be announced publicly and posted to the APHIS Web site at www.aphis.usda.gov. In the coming weeks, USDA's Animal and Plant Health Inspection Service (APHIS) will also be publishing a notice in the Federal Register to request input. Producers and stakeholders will be notified when to visit www.regulations.gov to provide their suggestions and comments, or they can access the site through the APHIS NAIS Web site.

"I recognize many groups have provided input into the system previously," said Vilsack, "but we know more today what kind of system will work, than when NAIS was first envisioned. And, I encourage stakeholders--both small and large--to embrace this opportunity to tell us what kind of system they feel would work and to talk about solutions. Over the coming months it

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- How to Get Information
- Subscriptions
- RSS Feeds

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- Agency Reports
- USDA Publications

Events
- Events by Date

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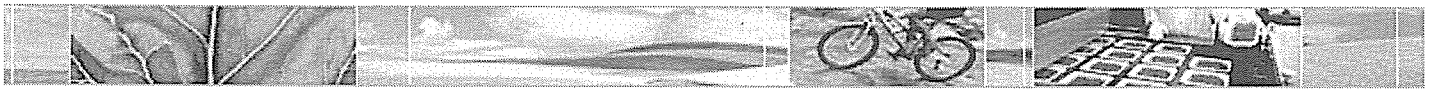
will be my goal to personally dialogue with as many as I can--to hear firsthand how we can work together to develop a system that everyone can support."

In 2004, APHIS began implementing NAIS, an animal traceability system that would enable producers and animal health officials to respond quickly and effectively to animal disease events in the United States.

Note to Reporters: USDA news releases, program announcements and media advisories are available on the Internet. Go to the APHIS news release page at http://www.aphis.usda.gov/newsroom. Also, anyone with an email address can sign up to receive APHIS press releases automatically. Send an email message to lyris@mdrdlyriss10.aphis.usda.gov and leave the subject blank. In the message, type subscribe press releases.

Last Modified: 04/15/2009

USDA United States Department of Agriculture



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News Release

Release No. 0377.07
Contact:
Wayne Maloney (301) 734-7255

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USDA AND ITS PARTNERS CONTINUE TO REGISTER NATIONAL ANIMAL IDENTIFICATION SYSTEM SUCCESS

Nebraska Becomes 10th State to Reach Halfway Point in Premises Registration

WASHINGTON, Dec. 17, 2007-- U.S. Department of Agriculture's Animal and Plant Health Inspection Service has recorded 429,600 premises registered nationwide – with substantial increases this year in the number of premises registered as part of the National Animal Identification System. This month, Nebraska became the 10th state to register at least 50 percent of its total estimated production agriculture premises under this system.

"Premises registration is absolutely necessary to rapidly and reliably trace and eradicate animal disease," said Bruce Knight, under secretary of USDA's marketing and regulatory programs. "As the number of registered premises continues to grow, it emphasizes the growing support for animal identification, and I applaud these producers for making a choice that is crucial to the health and economic well-being of commercial livestock and poultry industries in the United States."

Nebraska officials attribute the increased registrations in part to a significant number of visits to its National Animal Identification System (NAIS) "Locate in 48" Web site. "Locate in 48" publicizes the main goal of NAIS, which is to retrieve traceback data within a 48 hour window to contain the spread of animal disease. Other factors contributing to the increase in registrations in Nebraska include the ability to register by phone and direct mail outreach.

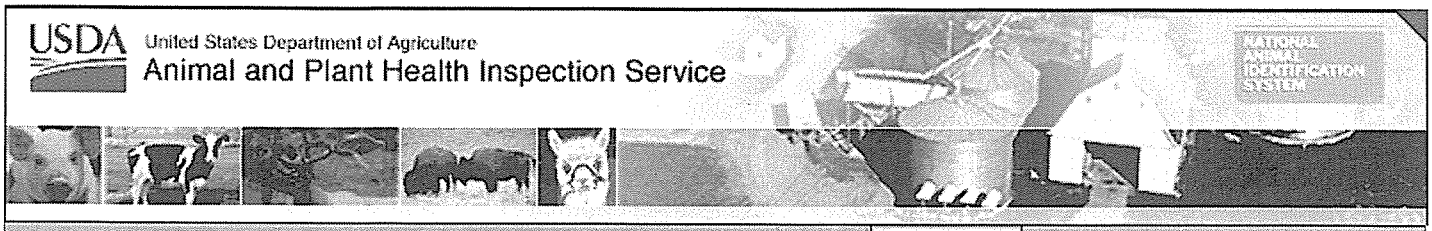
Other states that have topped the 50 percent mark include Idaho, Indiana, Michigan, Nevada, New York, North Dakota, Pennsylvania, Utah and Wisconsin. West Virginia is approaching the 50 percent mark, having registered 49.8 percent of its estimated 17,670 premises.

Other states, including Delaware, Iowa and Massachusetts, have reached the 40 percent mark and double-digit registration gains have occurred this year in a number of states. Iowa started the year with just over 11,000 premises registered and

now that number is over 20,000--an increase of almost 80 percent. Texas registered more than 6,400 new premises this year, resulting in a 27.7 percent increase.

Working cooperatively with states, tribes and industry partners, the NAIS is a modern streamlined information system that helps producers respond quickly and effectively to animal disease events. It consists of three components: premises registration, animal identification and tracing. The premises registration component of NAIS ensures the availability of a nationwide communications network to assist livestock owners and animal health officials in the event of an animal disease event. There are an estimated 1.4 million production premises in the United States. To contact a state partner or find out more about NAIS go to www.usda.gov/nais .

Last Modified: 12/17/2007



Newsroom

USDA to Provide Interim System to Register Locations as Part of the National Animal ID System

WASHINGTON, July 19, 2004—The U.S. Department of Agriculture's Animal and Plant Health Inspection Service today announced that it has selected a premises registration system, as an interim solution, that will record locations where animals reside or will reside. This is an important first step in the implementation of a national animal identification system (NAIS). The Wisconsin Livestock Identification Consortium developed the system.

"Before animals can be tracked during a disease outbreak, we need to know where the animals are located," said APHIS Administrator W. Ron DeHaven. "Registering animal premises is a key component of a national animal identification system and will help trace animal movements during any future outbreaks."

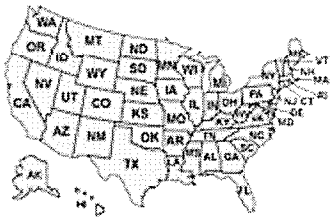
The interim system was selected based on the results of an independent review conducted by SI International of Reston, Va. Currently, USDA is enhancing the system for use in multiple states and will provide it to a limited number of states in early August. It will be phased-in to ensure that any problems can be addressed before it is available nationally.

USDA will provide the interim standardized premises registration system that states or tribes can elect to use. States and tribes also can use other premises registration systems, as long as these systems meet national data standards. By early August, USDA will have evaluated other premises registration systems to ensure compliance with the national data standards.

USDA is committed to designing a comprehensive animal identification system that will trace all animals and premises potentially exposed to a foreign animal disease within 48 hours. This will ensure that the disease is quickly contained and eradicated. As announced in June, USDA will enter into cooperative agreements with states and tribes to implement a NAIS during the coming months. A total of $11.64 million will be awarded to begin implementation of an identification system for all livestock and poultry animals on farms and ranches.

Note to Reporters: USDA news releases, program announcements and media advisories are available on the Internet. Go to the APHIS home page at

Register Your Premises Now!



http://www.aphis.usda.gov and click on the "News" button.

printer friendly

Michigan

Department of Agriculture

Animal Industry Division

Bovine TB Eradication and Electronic Identification Program Process Improvement As-Is Business Process Review

Project Report

Thursday, May 08, 2008

Senior Technology Partners, Inc.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Background

The current chapter of the Michigan Tuberculosis program began in 1994, when a free ranging white-tailed deer was found to be infected with Mycobacterium Bovis Subsequent testing of bovine herds in the lower peninsula resulted in suspension of Michigan's accredited-free status in 1998, reduction in status to modified accredited in 1999, advancement to split-state status (two zones – modified accredited and modified accredited- advanced) in 2004, and advancement of the upper peninsula to accredited-free in 2006, which provides the State with three separate zones for bovine tuberculosis.

The Michigan Department of Agriculture, the Michigan Department of Natural Resources, and USDA, APHIS, Veterinary Services entered into a Memorandum of Understanding (MOU) in 2005 as a prerequisite to attaining the split-state status which accorded accredited-free status to the Upper Peninsula effective January of 2006.

The purpose of this memorandum of understanding (MOU) is to outline and agree on the principles required in establishing three designations of state status regarding the risk of bovine tuberculosis, namely Modified Accredited status, Modified Accredited Advanced status, and Accredited free status pursuant to Title 9, Code of Federal Regulations (CFR), and the Tuberculosis Eradication Programs Uniform Methods and Rules (UM&R)

MDA responsibilities outlined in MOU where to establish methods to regulate and monitor cattle movements between zones. These methods include the following:

- Require electronic identification and a movement permit for any cattle moved from premises in the Modified Accredited zone.
- Cattle movements from the Modified Accredited zone will be routinely and continuously monitored at livestock auctions on sale days
- Movement between the Upper Peninsula and Lower Peninsula of Mi will be monitored at the Mackinac Bridge.
- Utilize authority to intercept and inspect vehicles that are transporting livestock on public roads
- Summary reports of activities
- On or before January 1, 2006, MDA will require a certificate system jointly developed between the cooperator and service to track cattle between any zones in Mi.
- At least 25 randomly selected herds in UP and 775 randomly selected herds in MAA zone be tuberculosis tested each year.

- Provide support for acquisition and development for electronic identification, hardware and software in accordance with the NAIS and USDA regulations

To that end MDA has developed and implemented policies, procedures, communications and monitoring mechanisms to comply with the MOU. Numerous computer applications provided by the State, Federal and vendors have also been utilized in an attempt to streamline and fulfill these requirements, but due to the outdated technologies and the decentralized systems and databases employed, further improvements on services and efficiencies have been constrained.

Scope

The scope of this project is defined as the evaluation of business processes within the Animal Industry Division that support the Premise Registration, Electronic Ear Tagging and Animal Inventory and Movement Certificate Issuance. The initial phase of this project is to complete the documenting of the current business processes (as-is), note potential short-term improvements and determine the viability of initiating the next phase of documenting new business processes (to-be) and identifying the requirements for a software solution to support them. The determination to conduct the next phase of to-be process development will be based on the opportunities defined in the as-is, including potential efficiencies through automation (Vendor Applications or Custom developed) and departmental budget availability.

This project is focusing specifically on the Bovine TB Eradication Program and the procedural and automated requirements, but MDA management has stated their desire, if possible, to design a solution that has ability to be expanded to address other diseases, species and their related compliant and case tracking requirements. Without specific sessions and tasks incorporated into this phase or subsequent phases of the project it will not be possible to evaluate or determine if this "expandability" will be possible with the eventual solution developed and provided within this project context.

METHODOLOGY

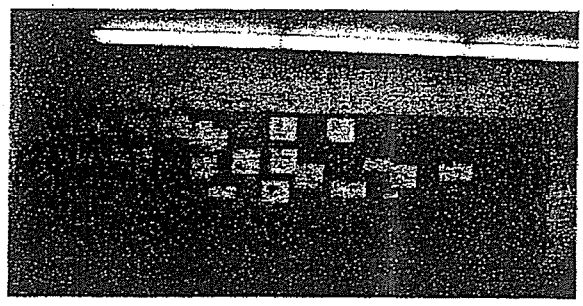
Overview

To accomplish MDA's objective of implementing new business processes and increased services to the cattle industry through the creation of web-based information systems requires department wide agreement on what those business processes are. Typically an organization will have developed policies and procedures over time that bridge changes in organization structure, technology and people. The interpretation and execution of those procedures can vary based on the individual. In order to create the specifications for new automated applications there first must be an agreement on what is to be accomplished, how it is currently done and what opportunities an organization has to improve how the processes are to be done.

Senior Technology Partners, Inc. approach to technology implementation is through workflow redesign, process improvement and organizational alignment. The effective implementation of technology and process improvement is accomplished through the envisioning of new work strategies, the process design activity and implementation of changes that address each critical organizational dimension: technology, people and organizational structure.

Senior Technology Partners uses the business process redesign methodology called ***Brown Papering***. This Business Process Reengineering methodology and tool is an interactive team building process that facilitates the documentation and consensus of how current business functions are accomplished and how they can be improved. This process has been used successfully within the State of Michigan, local municipalities and private organizations.

The brown paper is a portable, pictorial representation of a process workflow (strategic or operational) detailing the critical steps taken and highlighting applicable interfaces, decision points, information movement and data It can also include documentation, record keeping, live logs and reports, work process efficiencies and deficiencies; and external and internal customers.



The focus of the brown paper sessions can be managed to provide:

- Group consensus on how business is conducted
- Team building and empathy for individual and group contributions to a service or business objective
- Forum for collecting improvement ideas (procedural and technical)
- Development of a new "envisioned" work process flows utilizing technology, organizational and procedural changes
- Creation of specifications for requirements of a new automated system to support the new process flows
- Documentation to develop office procedures and training guides for employees

Interviews

In preparation to begin the brown paper sessions a number of interviews and meetings are held with the project executive sponsors and program managers to determine the scope of the project, participants and context. The findings from the interviews are compiled into a Project Charter (Appendix A: Bovine TB eradication and Electronic ID Program Business Process Improvement Project – Charter) for review and approval by the project sponsors. Interviews were held with:

Phyllis Mellon	Brad Pagratis
John Tilden	Kevin Kirk
Mike Vanderklok	Steve Halstead
Nancy Frank	Vic Mankowski

Brown Papering Sessions

Based on discussions with the MDA staff the context of the project (Bovine TB Eradication and Electronic Identification) was subdivided into 3 distinct business process sessions.

1. Premise Registration
2. Electronic Ear Tagging and Animal Inventory
3. Movement Certificate Issuance

Participants

See Appendix B: Participants for list of session participants

Call for Materials

Two separate requests for materials were issued, the first utilizing the executive and program sponsors to provide relevant documentation related to the programs, and secondly from the brown paper participants. Each providing their own view on

relevant documentation based on their roles and responsibilities See Appendix C: Documents Provided, for a list of materials provided.

Research

Prior to each interview, meeting and brown paper session Senior Technology Partners staff conducted web research for background and comparative information In addition a "field trip" was taken to view the processes related to livestock markets handling of electronic ear tags and movement certificates.

Schedule and Conduct Sessions

Four sessions were conducted:

February 19, 2008 Premise Registration

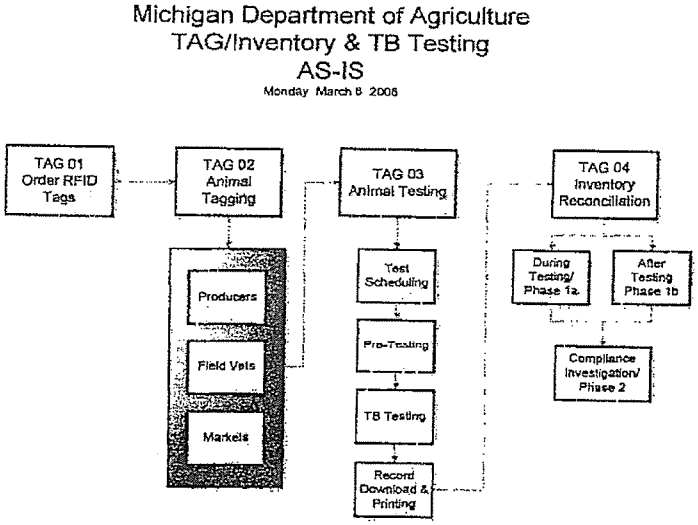
March 3 and 6, 2008 Animal Tagging, Inventory and Testing

March 7, 2008 Movement Permits/Certificate Issuance

Flow and Narrative Reviews and Revisions

The brown papers created from each session along with the discussion notes were compiled into

1.) Graphical overview of major process steps,



Sample Process Overview

2.) Process narratives documenting the key steps and handling:

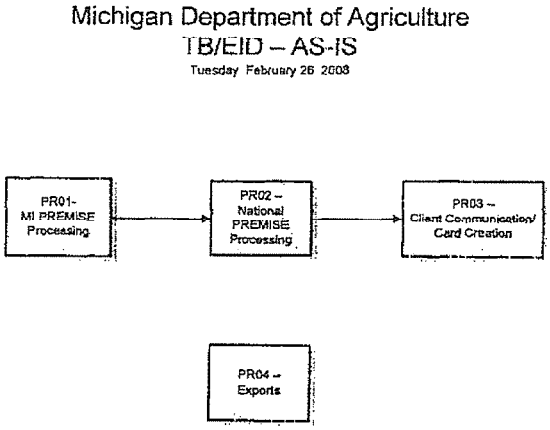
Process Description:	High level description of the process being defined Includes background information and the scope of the process.
Participants:	List of the groups involved in this process.
Inputs:	The items that may be needed as input to the process.
Outputs:	The items that may be created as a result of this process.
Steps:	Step by step description of the process. Includes references to documentation, websites or other information.
Volume:	Quantity of inputs, outputs that are processed as part of this process, if applicable or available.
Processing Time:	The current effort or processing time to complete the process or steps in the defined process
References/ Documentation:	Any documentation or references provided that are relevant to this process.
Notes/Comments	Any additional information relevant to this process

FINDINGS AND OPPORTUNITIES

Premise Registration

Current Business Process Flows:

Premise Registration Process Flow depicted below and Process Narratives (Appendix D– Premises Narratives)



Opportunities

1. MDA determination of how a premise is defined considering the uniqueness of the location, herd and animals as it supports the goals of AID for disease and animal tracking.

   USDA defines a premise as: any geographically unique location associated with animal agriculture that would allow for the commingling or movement of animals or poultry or that is involved in commerce.

2. Ability to make requests for Premises ID through a secure web site. Include system that has online entry forms and workflow to track requests, email notifications

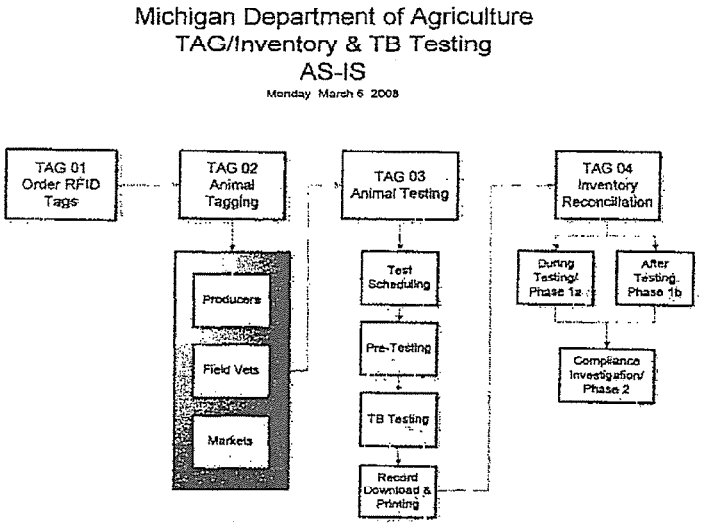
3. Determine feasibility of eliminating duplicate Premise ID's (Michigan and National) by unifying under the USDA system.

4. Create a new repository (database) to contain necessary information currently supported by Holstein – FAIR and AISS.
5. Provide web based user interface with imbedded capabilities for determining requestor's location coordinates; address etc to allow for easy search on existing Premise ID for that location.
6. Provide real-time interface with USDA GDS for requesting and obtaining a National Premise ID.
7. Provide automated notification and creation and mailing of National Premise ID Card sent to requestor.
8. Provide improved file maintenance utilizing a document management system that will help manage paper handling (scanned, on-line access).

Animal Tagging and Inventory

Current Business Process Flows:

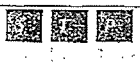
Animal Tagging and Inventory business process flows (insert), and process narratives are included in Appendix E – Animal Tagging and Inventory Flows and Narratives.



Opportunities

1. Provide direct access from the MDA web site to ALLFLEX for ordering tags, including online payment capabilities. Do we care about inventory of tags?
2. Provide easier way for producers to update "FAIR" when animal is tagged. Scanned info downloaded to "MDA", web access.
3. Provide handheld units for use for all testing to record ID and animal specific information (Fee Basis). Require that all state testing will require hand held use to provide download of data for Inventory Reconciliation.
4. For tags attached at markets, provide assurance that animal specific information is captured and updated within 24 hours (scan/HH by market staff). Currently if it is a market tag (900 series) the tag inventory sheet is completed, if it is the producers tag information needs to also be recorded
5. Test scheduling interfaces and tracking with USDA selected herds, test dates for MAA, and include capabilities in "MDA" for tracking MA schedules

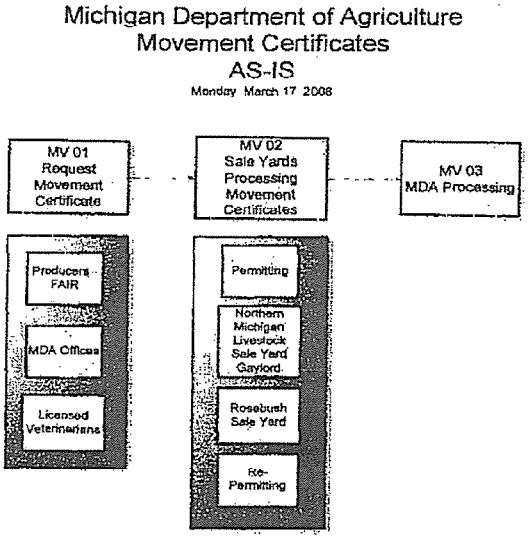
6. Simplify handling of payment of fee basis vets so that scheduling is tied to payment requests and payment (possibly Web based interface)
7. Improve and expand Inventory Reconciliation for all zones to improve tracking
8. Improved tracking of testing results for positive animals, including follow up tracking and testing, as needed.
9. Reduce number of copies of test results needed. Currently 3 copies of test results are generated. Investigate use of automatic downloading or online distribution of results to minimize some of the copies required.



Movement Certificate Issuance

Current Business Process Flows:

Premise Registration Process Flows (insert) and Process Narratives (Appendix F – Movement Certificate Issuance Narratives)



Opportunities

1. Provide better correlation of the market back tag to EID. This is happening at some markets but a method of back tag to EID correlation should be put in place in all markets. Explore means to electronically correlate RFID and the back tag together on the re-permit in order to eliminate human error in the transposing of numbers.
2. Provide Web interface for easy access and requesting a movement permit, either as a form submitted or work flowed or as a user interface to allow submission and completion by the requestor.
3. Based on information on Premise ID of destination, provide automatically email or fax copies of the certificate.
4. Provide web based Interstate Health Certificate (IHC) requests and completion by fee basis vets that interfaces to MDA system to create movement permit

5 Evaluate potential for a common "distribution point (Sale Yard, etc) process and software to support verifying a pre-movement certificate when animals arrive, and capture of information of next destination point as a movement certificate which can be uploaded into the "FAIR" system.

CONCLUSIONS

The focus of this phase of the project is to document and gain consensus on the current business processes used in the TB Eradication Program. Once documented, the processes are assessed to identify possible areas for opportunities that can improve existing processes Opportunities for improvement are identified in three areas – processes, technology or resources.

The MDA / AID group has invested a significant amount of effort in defining practices and procedures, and developing or adapting to applications to support the data collection and reporting for compliance with the USDA Bovine TB Memorandum of Understanding (MOU) for Michigan. In addition considerable thought and effort has had to be expended to develop "reasonable" policies that would be enforceable or acceptable to the Animal Industry groups. As the individuals and groups became more receptive, and technology advancements made it possible, new methods have been instituted to support the tagging, tracking and health evaluation of bovine in Michigan. Due to the regional requirements of different TB zones and MDA office locations many of these practices and procedures have also developed their own variations.

The end result is a set of applications and procedures that is allowing the MDA to receive adequate evaluations from the USDA audits, with areas pointed out that need additional attention. This is made possible through the expenditure of considerable effort and time by the MDA staff. The complexity of the procedures supporting Premises ID and Animal Tagging and Movement Certificates, the regional variations and the multiple computer applications supporting them will continue to require significant management attention, hand holding and staff effort to achieve and maintain the current monitoring levels.

The following excerpts were selected from the 2/2008 audit that are within the scope of this project and potentially could be addressed through procedural or programmatic changes.

As stated in the February 4, 2008 Tuberculosis Program Review conducted by the USDA Veterinary Services, " the MDA is to be commended for taking ownership of the Bovine Tuberculosis Eradication program" with the following recommendations (paraphrased):

- The need remains to have records of applied official (metal) ID tags to correlate with official ID (metal) tags issued log to assist with tracing animal movements
- Continue to monitor RFID identification at slaughter facilities and the correlation of back tag, metal tags and other forms to the EID.
- Every effort should be made to complete testing of the random surveillance herds selected for 2007. VS and Michigan need to agree on a plan for targeted surveillance for 2008 and beyond.

- Continue to follow the protocol that was created for MAZ surveillance and ensure that testing is completed in a timely manner.
- We recommend that MDA personnel at the Gaylord Market record the complete back tag number including the alpha-numeric prefix into the FAIR data base and on the permit so that permits can be verified at slaughter plants that do not have an electronic reader.
- Correlation of the market back tag to EID is happening at some markets but a method of back tag to EID correlation should be put in place in all markets Explore means to electronically correlate RFID and the back tag together on the re-permit in order to eliminate human error in the transposing of numbers.
- MDA is urged to continue their efforts to identify and address the problems associated with the slaughter scan data.
- Michigan Dept of Agriculture must insure that herd inventory reconciliations, both affected herds and annual surveillance herds, are processed and completed within the timeframes established in the MDA's Inventory reconciliation Protocol.

The current systems and procedures are addressing the areas recommended by the USDA for improvement. These systems and the ability to improve the processes are constrained by the limitation of the applications, and or restrictions and resistance to implement changes at the market and slaughter facilities to support tracking and recording of animal movements.

Each of the three areas can be improved significantly with an integrated and "custom" software solution that would improve communications, information collection and data repository reporting and monitoring. Conducting the to-be sessions would facilitate agreement within MDA on the definition of key principles (i.e. Premises) and on procedures, systems checks and balances. The creation of a uniform approach to implementing operational changes at key collection points (markets, slaughter facilities), supported by the "custom application" should increase compliance with the USDA MOU and ability to obtain a T/B free status ratings.

Although a number of Standard Operating Procedures have been developed and put into place, they have not been standardizing across MDA. Different approaches or interpretations of the procedures exist within an office and between MDA locations.

The As-Is sessions pointed out the complexity and effort required by MDA to maintain this level of compliance and the long term implications of continuing in this mode. The limitation of the software(s), inconsistency in the data reporting and delay in providing current information should be addressed if the state is to maintain this compliance level and have the ability to drive towards "eradication" of TB in Michigan.

RECOMMENDATIONS

The Michigan Department of Agriculture requested Senior Technology Partners to evaluate the current business processes and technology supporting the Bovine TB Eradication and Electronic Identification program There is concern that current standardized policies and procedures and the data requirements and systems supporting them are currently (or may become) unsustainable and inefficient. After discussions with MDA and Bovine TB management, additional research, review of supporting documentation and multiple business process modeling sessions, STP recommends the following:

The Bovine TB Eradication and Electronic Identification programs would benefit dramatically from re-engineering the current business processes and implementing a "customized" application to support the redefined processes From STP's experience, documenting of the reengineered to-be processes in other State of Michigan agencies have benefited from one of two approaches:

1. If a target application has been identified and selected by the MDA as the preferred solution (or a "state standard" is available) the to-be sessions would be conducted with business representatives, technical specialists and business analysts representing the target application. STP would provide facilitation for the sessions.
2. If no target application is identified, a set of functional and technical requirements are developed from the to-be sessions. These requirements form the basis for the Request for Proposal. Prior to conducting the to-be sessions a market evaluation of the potential vendor solutions is conducted to allow the "core team" and management the opportunity to evaluate current trends, functionality and approaches to T/B Management and incorporate them, if applicable into the proposed to-be processes.

Michigan's efforts to improve their Bovine TB program management has been guided by the USDA's parallel work to define a nation wide standard for data definition, data collection and reporting and provide the software to support it The National Animal Identification System (NAIS) developed in partnership with the animal agriculture production industry, State animal health authorities, and USDA, provides the common data standards required to close traceability gaps. The Standard Premise Registration System (SPRS), Animal Identification System (AIS) and Generic Data Base (GDB) are multiple applications that have been provided An expanded set of applications meant to meet the needs of all states has been considered by the USDA and has been documented as the Animal Health and Surveillance Management system (AHSM) The AHSM is intended to replace the GDB. A proposal of its scope is depicted below.

NAHSS OUTLOOK QUARTER THREE 2007

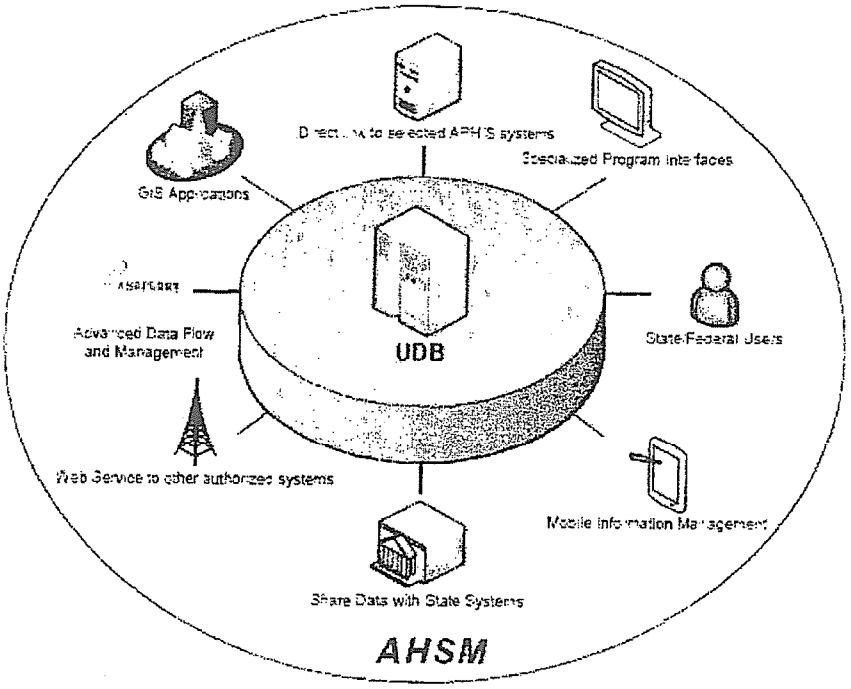


Figure 1: The Scope of AHSM

The reality of the AHSM system and when it may be available are considerations that the State must weigh in evaluating new software alternatives Michigan Department of Agriculture has performed a market evaluation and identified two potential solutions. Based on the software review by MDA, and discussions with USDA representatives, the USA Herds and FAIR systems appear to be viable solutions.

It is the recommendation of STP that the MDA/AID staff use the first approach identified previously to address the future needs of the agency. MDA (with STP's assistance) would perform an informal review of the two solutions, based on the system's current functionality, proposed application development plans and mapping of functionality to the current as-is business needs. The end result of this activity is to potentially select the software solution that would be used during the to-be sessions and more accurately quantify the costs and feasibility of implementing the solution. The selected software solution would greatly assist MDA during the to-be sessions. The end product from this approach would be a clearly defined set of business processes that best utilize the functionality of the

application and a clear set of requirements for modifications and enhancements. The resulting functional specifications would be the vehicle for the vendor's proposal on delivering the specified system, as agreed upon during the engineering sessions, the estimated costs and timeframes

User documentation (Standard Operating Procedures) would be developed from these sessions to be used in training and developing office manuals.

This approach has two major benefits. This allows MDA to implement a solution in a quicker, more cost effective manner. In addition, this approach will take advantage of the knowledge and efforts of the MDA and USDA by potentially using a solution that already has synergy with the USDA requirements.

If a vendor solution decision can't be made during the reviews, or state procurement practices inhibit the selection, then the to-be sessions would be conducted with the market study as a backdrop with the functional specifications and RFP as deliverables.

GLOSSARY

Acronym/Name	Description
AHSM	Animal Health Surveillance Management
AID	Animal Industry Division
AIN	Animal Identification Number
AISS	Animal Industry Support System
APHIS	USDA Animal and Plant Inspection Service
AROD	Atlanta Regional Data Base
CCT	Comparative Cervical Test
CEAH	Center for Epidemiology and Animal Health (USDA)
CERVID	Deer, Elk, Moose, etc
CFR	Code of Federal Regulations
CFT	Caudal Fold Test
EID	Electronic Identification
FAIR	Farm Animal Identification Records System
FEE BASIS	Contracted private vets
GDB	Generic Data Base
GI TEST	Gamma Interferon Test
HERD	Program used to schedule TB testing. Used by MDA Atlanta.
IHC	Interstate Health Certificate
IRDaP	Inventory Reconciliation "Data Analysis" Program
MAAZ	Modified Accredited Advanced Zone
MARKET	Livestock Auction Market, Sale yard, Stockyard
MAZ	Modified Accredited Zone
MDA	Michigan Department of Agriculture
NAIS	National Animal Identification System
NHA	National Holstein Association
PIN	Premises Identification Number
PREMISES	A location where livestock are raised, held, or boarded, such as a farm, ranches, markets, exhibitions, and slaughter facilities

Acronym/Name	Description
PRODUCER	Farmer that owns animals
PSION	???
RFID	Radio Frequency Identification
SPRS	State Premises Registration System
TBMINS	Mobile Information Management System
UM&R	Tuberculosis Eradication Programs Uniform Methods and Rules
USDA	United States Department of Agriculture

APPENDIX A: BOVINE TB ERADICATION AND ELECTRONIC ID PROGRAM BUSINESS PROCESS IMPROVEMENT PROJECT CHARTER

A. General Information

Project Id:	*Bovine TB Eradication and Electronic Identification Program*	***Date:***	*February 5, 2008*
Lead Agency:	*Department of Agriculture*	***Modification Date:***	*February 25, 2008*
Prepared by:	*Wayne Budde*	***Authorized by:***	

B. Project Purpose

Evaluate the Michigan Department of Agriculture / Animal Industry Divisions Bovine TB Eradication and Electronic Identification Program business processes associated with issuing, maintaining and tracking Livestock producers Premises Registration, Animal Tagging and Inventory and Movement Certificate requests.

Explore opportunities for improvement through the creation of web-based information systems that support the new business processes and increase services to the cattle industry

C. Project Goals / Objectives

Goals/Objectives

1. Conduct as-is session(s) necessary to document satisfactorily the process steps, gather representative materials and hold confirmation session for acceptance of as-is flows and narratives for Premises Registration, Animal Tagging and Inventory and Movement Certificate Issuance
2. Document Opportunities (Short and Long Term) and Feasibility of Designing and Implementing New Business Processes (automated).
3. Collect business process metrics related to number of times a task is executed on a weekly basis and the time (effort and duration) it takes to complete each task.
4. Document and gain consensus on how AID currently performs its processes.

D Project Scope

The scope of this project is defined as the evaluation of business processes within the Animal Industry Division that support the Premises Registration, Electronic Ear Tagging and Animal Inventory and Movement Certificate Issuance.

Project Results

The initial phase of this project and intent of this Charter, is to complete the documenting of the current business processes (as-is), define and implement short-term improvements and determine the feasibility of initiating the next phase of documenting new business processes (to-be) and identifying the requirements for a software solution to support them. The determination to conduct the next phase of to-be process development will be based on the opportunities defined in the as-is, including potential efficiencies through automation (Vendor Applications or Custom developed) and departmental budget availability

Content of the Project

I. **Evaluation of Existing Documentation, Interviews and Research:** Materials submitted by MDA considered relevant to the project scope and necessary to provide background information and understanding will be reviewed Interviews will be held with the project coordinator, project sponsor and key departmental managers to gain an understanding on expectations extent of participation by departmental and industry representatives and complexity of the 3 target areas (Premises, Tagging and Movement) STP will conduct research as necessary to prepare for the interviews and subsequent re-engineering sessions

   a. **Deliverables:** Project Statement of Work, Project Charter, Project Timeline (Dates to be set after project charter agreement Statement of Work acceptance and established start date).

II. **As-Is Brown Paper Sessions for Premises Registration Business Processes:** Each brown paper session will require the following steps: 1. Determination of participants 2 Scheduling of session 3. Preparation and distribution of Session Introduction and Participation Requirements to attendees 4. Conduct as-is session(s) necessary to document satisfactorily the process steps gather representative materials and hold confirmation session for acceptance of as-is flows and narratives

   a. **Deliverables:** Premises Registration As-Is Business Process Workflow and process narratives.

III. **As-Is Brown Paper Sessions for Animal Tagging and Inventory:** Conduct as-is session(s) necessary to document satisfactorily the process steps, gather representative materials and hold confirmation session for acceptance of as-is flows and narratives

   a. **Deliverables:** Animal Tagging and Inventory As-Is Business Process Workflow and process narratives

IV. **As-Is Brown Paper Sessions for Movement Certificate Issuance:** Conduct as-is session(s) necessary to document satisfactorily the process steps, gather representative materials and hold confirmation session for acceptance of as-is flows and narratives

   a. **Deliverables:** Movement Certificate Issuance As-Is Business Process Workflow and process narratives

V. **Document Opportunities (Short and Long Term) and Feasibility of Designing and Implementing New Business Processes (automated).**

   a **Deliverables:** Report detailing short and long term process improvements to be gained from implementing workflow changes and supporting software

Exclusions

- Although the Department has an interest in evaluation and reengineering of processes and systems supporting all reportable animal diseases, this project charter will only address the Bovine TB Eradication and Ear Tagging Programs business processes supporting Premises Registration, Animal Tagging and Inventory and Movement Certificate Issuance.

Key Stakeholders

- Michigan Department of Agriculture

- United States Department of Agriculture
- Michigan Department of Information Technology
- Cattle Producers
- Cattle Markets

Assumptions

- Up to four interviews to allow for preparation, conducting and documenting the outcomes. Background material reviews and research. Draft Statement of Work Project Charter and Project Timeline
- Premises Registration will require one as-is session with up to 8 participants representing Administration (MDA, USDA) DIT and the AID EID Program Manager and TB Eradication Program Manager.
- Animal Tagging and Inventory will require two as-is session with up to 10 participants representing Field Veterinarians (MDA, USDA), Farmers Administration (MDA), DIT and the AID EID Program Manager and TB Eradication Program Manager.
- Movement Certificate Issuance will require two as-is session with up to 10 participants representing Farmers, Markets Slaughter Operations, Regulatory Veterinarians (MDA USDA) Administration (MDA) DIT and the AID EID Program Manager and TB Eradication Program Manager

Constraints

- *The Department would like to complete the As-Is and To-Be modeling projects by June 1 2008*

E. Project Authority

Authorization

- **Executive Committee**
  - **Gordon Wenk, Acting Chief Deputy Director MDA**
  - **Steve Halstead, Division Director MDA/Animal Industry Division**
  - **Nancy Frank, Deputy Division Administrator MDA/Animal Industry Division**
  - **John Tilden, Bovine TB Eradication Program Manager MDA/Animal Industry Division**
  - **Brad Pagratis, Business Technology Resource Manager MDA**
  - **Linda Pung, Information Officer, MDIT**

Project Management

- *Wayne Budde, Senior Technology Partners*

Core Team

- **Paula Sample**
- **Joe Wolfe**
- **Jennifer Strickland-Finch**
- **Kevin Kirk**
- **Mike Vanderklok**
- **Dave Minier**

Controls

F. Roles and Responsibilities

Project Organization Overview

Major Milestones	*Executive Committee*	*Core Team*	*Project Manager*	
Evaluation of Existing Documentation Interviews and Research			*E*	
As-Is Brown Paper Sessions for Premises Registration Business Processes	*A*	*C*	*E*	
As-Is Brown Paper Sessions for Animal Tagging and Inventory	*A*	*C*	*E*	
As-Is Brown Paper Sessions for Movement Certificate Issuance	*A*	*C*	*E*	
Document Opportunities (Short and Long Term) and Feasibility of Designing and Implementing New Business Processes (automated)	*A*	*C*	*E*	

Legend:

E = responsible for execution (may be shared) C = must be consulted

A = final approval for authority I = must be informed

G. Management Checkpoints

Checkpoint	Evaluation Criteria
• Review and approval of Premises Registration As-Is business flows and narratives	• Accurate and detailed representation of business processes with attachments including procedure manuals policies, SOPs, etc.
• Review and approval of Animal tagging and Inventory As-Is business flows and narratives	• Accurate and detailed representation of business processes with attachments including procedure manuals policies, SOPs, etc ..
• Review and approval of Movement Certificate Issuance As-Is business flows and narratives	• Accurate and detailed representation of business processes with attachments including procedure manuals, policies, SOPs, etc ..
• Delivery of end of project report documenting Opportunities (Short and Long Term) and Feasibility of Designing and Implementing New Business Processes (automated)	• Comprehensive document describing feasibility in each of the process areas (Premises Registration, Inventory/Tagging and Movement Permitting)

II. Signatures

The signatures of the people below relay an understanding in the purpose and content of this document by those signing it By signing this document you agree to this as the formal Charter statement to begin work on the project described within and commitment of the necessary resources

Name/Title	Signature	Date
Gordon Wenk, Acting Chief Deputy Director MDA		
Steve Halstead, Division Director MDA/Animal Industry Division		
Nancy Frank, Deputy Division Administrator MDA/Animal Industry Division		
John Tilden, Bovine TB Eradication Program Manager		
Brad Pagratis, , Business Technology Resource Manager MDA		
Linda Pung, Information Officer, MDIT		

APPENDIX B – PARTICIPANTS

Participants(s)
Joe Wolf
John Tilden
Kevin Kirk
Michael VanderKlok
Paula Sample
Suganya Umachandran
Brad Pagratis
Casey Rietz
David Minier
Diane Hickens
Gary Gawel
James Earl
Jennifer Strickland-Finch
Mark Remick
Dan Graham

APPENDIX C – DOCUMENTS PROVIDED

Bovine TB Eradication and Electronic Tagging

	Document Provided	Document Date
1	State Premises Registration System Guide JSF	
2.	AISS Table Structure	
3.	Premise Exceptions	
4.	Exceptions Processing Agreement 1 2	03/11/05
5	Premise ID Ltr REVISED	
6	Premises Card Letter	
7.	AID Dbase Docs	March 2008
8.	Michigan Bovine Tuberculosis Zones	03/06/08
9	Tag Allocation Sheet (Inventory Tracking)	
10.	Tuberculosis Test Record	Feb 99
11.	Michigan Comparative Cervical/Gamma Interferon Tb Test Form	
12.	State Notes: Topics of Legislative Interests (Gary S. Olson)	March/April 2007
13.	RegTesting Application General User Manual	Version 2.0.6
14.	Terminal Operations In the MAZ (report)	March 14, 2008
15	Updated TB Testing Figures	2007
16.	Inventory Reconciliation Report	3/14/2008
17.	AISS Monthly Logs	March 17, 2008
18.	MAZ TB Whole Herd Tests (report)	March 17, 2008
19.	TB Random Reports from TBRandom (Access) Database	March 05, 2008
20.	FAIR Database Version 2.0.0.21 Office TB Test Data Entry Form	
21.	FAIR Database Version 2 0.0.20 Field TB Test Data Entry Form	
22.	Various Crystal Reports - FAIR	
23.	Re-permitting Protocol for Cattle Leaving the Modified Accredited Zone to Modified Accredited Advanced Zone Sale yards	08/01/2007
24.	FAIR Movement Certificates	February 28, 2007
25.	Movement Certificates for Cattle Lansing Office	10/25/2007
26.	Movement Certificates for Cattle Telephone Issuance Procedure	10/25/2007
27	Protocol for Issuing Movement Certificates in Sale yards Located within the Modified Accredited Advanced Zone	August 10 2007
28.	Frequently Asked Questions and Answers Zoning Rules and Cattle Movement Certificates	
29.	Process for Issuing Movement Certificates for Cattle	
30.	Lansing Office Processing Movement Certificates and Interstate Health Certificate	
31.	Flowchart of Operations for Scanning RFID's at the Rosebush Auction Market	
32.	Gaylord SOP Quickview	
33	Gaylord SPO	

APPENDIX C – DOCUMENTS PROVIDED

Bovine TB Eradication and Electronic Tagging

Document Provided	Document Date
34. How Movement Permits are Generated Modified Accredited Zone	
35. Official Interstate Certificate of Veterinary Inspection for Livestock	
36. MH Animal Movement Permit	
37. Movement Certificate (Handwritten)	
38. Movement Certificate (computer generated)	
39	

APPENDIX D: PREMISES NARRATIVES

Procedure #1: PR01 - MI Premises Processing

Process Description:

The National Animal Identification System (NAIS)—currently being implemented by the U.S. Department of Agriculture (USDA) on a voluntary basis—is intended to identify animals and poultry and record their movements over the course of their lifespan. USDA's ultimate goal is to create an effective, animal tracking system that will help maintain the health of U.S herds and flocks.

The **PREMISES ID** is maintained at the national level, and it interfaces with premises registration systems maintained at the State level. Through the PREMISES ID, USDA can assign a unique premises identification number to each location where animals may commingle (e.g., a ranch, farm, grazing area, livestock market, slaughter establishment, or veterinary clinic). A single premises number will be used for each location, regardless of the number of species associated with it. In other words, a producer will not have a different premises identification number for beef, dairy, swine, etc. if all of these animals are located at the same operation.

The request for a PREMISES ID # is made to the MDA via multiple sources (see Inputs) The PREMISES ID # is tied to a location where bovine exist. The request is processed by the MDA using the AISS (Animal Industry Support System) system. Currently there are approximately 11,000 Bovine Premises ID/Locations in Michigan. There is an additional 3000 registered Dairy Premises ID/locations It is believed that these Premises IDs encompass 80 – 90% of the existing bovine herd and 99% of dairy herd.

After a request for a PREMISES ID has been received, the office staff first processes the request using the AISS system. After it is determined that there is not an existing PREMISES ID for the location, the information is entered into the AISS system to obtain a Michigan ID. This is done before a National PREMISES ID number is obtained using the SPRS system.

If a Michigan Premises ID exists for this property, the request is reviewed and determination is made to determine the appropriate next steps.

Participants:

- Clients/Customers/Producers – for clarification of data
- 3rd Party Requestors
- Michigan Department of Agriculture
- United States Department of Agriculture (USDA)

- DIT (Technical Support)
- PTD (Professional Technical Development – AISS support)

Inputs:

- PREMISES Request
  - Web Form or Email
  - Phone request
  - Post Mail
  - 3rd Party Requestor (phone, excel spreadsheet)
  - Part of a tag order

Outputs:

- MI PREMISES ID # and account in AISS

Steps:

1. Request is received from the customer via web form or email (to Kim Felice), phone request, mailed card or 3rd Party requestor. The office staff receives the request.
2. Log into AISS. (Note: Security access IDs and passwords are assigned by the MDA System Administrator). *See the AID AISS User Guide for additional information.*
    a. Click on the AISS icon to bring up the **Animal Industry Support System** logon window.
    b. Enter login name/password in the **Login ID** and **Password** fields.
    c. Click on OK button.
3. Go to the Premises Screen.
    a. Click on the **Forms** title on the top frame bar.
    b. Select **Premises** and press Enter.
4. Determine if a Michigan Premises ID already exists for this location. To search for an existing record in AISS, click on the **Find Premises** button on the **Premises Information** screen. This will bring up the **Specify Retrieval Criteria** window.
5. Enter data in any of the defined fields to complete a search of existing records. The following fields should be used to complete a thorough premises search are:
    - prem_id
    - prem_state
    - prem_name
    - prem_address
    - prem_city
    - contact_lname (last name)
    - contact_address
    - contact_city

    Note: Search criteria are 'case sensitive'. A search should be done using multiple fields with both lower case and upper case being distinguished. Searches are done using address, street name only and/or owner name. Try a 'wildcard' search and various permutations to assure all necessary searches have been done. *See the AID AISS User Guide for additional information.*

6. If no PREMISES ID exists, select **Add Premises** on the **Premises**

Information screen. A blank record will appear

7. Use the tab key or left click on the fields to enter the data.
    - Active – click to make this an active record (required)
    - Premises Status Code – used to identify type of location
    - Prem ID – auto generated (not entered)
    - Address – address for the PREMISES ID (required)
    - City – city for the Premises ID (required)
    - State – state (required)
    - Zip – zip code (required)
    - County – county the location is in (drop down field – required)
    - Phone – XXX-XXX-XXXX (required)
    - Contact Name (required)
8. If the address for Premises ID is the same as the Contact Address, check the box **Address Same As Above.** This will populate the contact addresses below. If the Contact information is different, enter the appropriate information.
    - Address – address for the PREMISES ID (required)
    - City – city for the Premises ID (required)
    - State – state (required)
    - Zip – zip code (required)
    - County – county the location is in (drop down field – required)
    - Phone – XXX-XXX-XXXX (required)

    Note: Once the record is saved it can not be deleted through this application. Contact your System Administrator for corrections.
9. Save record.
10. Enter the Herd Supplemental information. Select the **Add Herd** button Enter the appropriate data.
    - Active (required) – drop down
    - Type (required) – drop down
    - Species (required) – drop down
    - No in Herd

- User Field 1 – Bovine Dairy – Milking Permit Number
- Remarks – if needed (other owners, movement of herd, etc.)

11 Go to Procedure #2 - **National PREMISES Processing**

Volume:

Register 30 – 40 PREMISES per week
50% of these are Bovine, 50% other species

Processing Time:

3 – 5 minutes (if all information is available)

References/Documentation:

Web Based Application Form (PREM-001)

AISS TABLE STRUCTURES (PREM-003)

AID AISS User Guide (PREM-006)

Notes/Comments

- Premises ID # stay with the physical location. Owners may change, but ID # does not.
- To assign/allocate a PREMISES ID, a user must be authenticated with the USDA. This is done outside the PREMISES processing.
- The National Premises Information Repository requires the following data elements:
  - Premises ID Number
  - Name of Entity
  - Owner or Appropriate Contact Person*
  - Street Address
  - City
  - State
  - Zip/Postal Code
  - Contact Phone Number
  - Operation Type (e.g , production unit, exhibition, slaughter plant, etc.)
  - Date Activated
  - Date Retired e. g., date operation is sold; date operation
  - is no longer maintaining livestock
  - Reason Retired

  **The contact person should be the person the animal health official is to communicate with, when performing a trace back (as determined by the entity).*

Procedure #2: PR02 - National Premises Processing

Process Description:

After a request for a PREMISES ID is processed in the Animal Industry Support System (AISS) and a Michigan Premises ID, a National PREMISES ID is obtained using the State Premises Registration System (SPRS)

Participants:

- Clients/Customers – for clarification of data
- Michigan Department of Agriculture
- USDA
- NAIS
- DIT (Technical Support)

Inputs:

- Michigan PREMISES ID #
- Original Request

Outputs:

- National PREMISES ID # and account in SPRS

Steps:

1. Log into SPRS. *See the State Premises Registration System Guide for additional information.*
2. If appropriate, SEARCH for existing account/PREMISES ID.
3. An account needs to be set up in SPRS for each Premises location. Enter the data as indicated:

Screen	Data
Who Are You?	• Primary Contact First Middle Last Name • Business Name • Alternate Contact First Middle Last Name
Where is . .	• Primary Mailing Address of the Business • Address • Add'l Line 1 • Add'l Line 2 • City • Country • State/Providence • Zip/Postal Code

	• County
Validate Address	No data – verifies the address. SEE BELOW FOR HANDLING ISSUES WITH THIS
What is …	• Business Type
How do we get in touch with you?	• Phone numbers (#1 - #4) • Email Address (not required) • Web Address (not required)
How do you want to setup your security access?	• User Id – lower case – first 12 characters combining last name then first name • Password – MI PREMISES ID # with first letter of last name

4 CLICK NEXT BUTTON

5. Account Setup: Summary page is displayed Print the summary page for the file. Copy as needed.

6. Once the account was set up, the registration of the premises is done.

7. Register Premise: Address Confirmation. The system will confirm the address.

8 Enter following data:

Screen	Data
Premise Operation Type	• Type of location (multiple choices)
Species Type	• Type of animal
Register Premise: Enter Detail	• Name Description • County • Legal Land Description (not required)
Geo Coordinates Provided By	• Select NAIS and keep record of the Latitude and Longitude for AISS

9 Confirmation – confirm data and press FINISH. This generates the National PREMISES ID.

10. Write password, Geo-code and National Premises Id on the printed summary.

11. Once SPRS processing is complete, AISS must be updated.

12 On the Register Premise: Summary – highlight the National Premises ID Number and copy number into AISS.

13 In AISS, under the Location note Latitude and Longitude.

14. In AISS, in the PREMISES Journal note the SPRS User ID and PASSWORD.

15 If the source of the requests were received via spreadsheet, or multiple requests, repeat PR-01 MI PREMISES Processing first, then this process PR-02 National PREMISES Processing for each request.

Problem with Address Verification:

1. If address validation (911 Address System) fails, other methods should be used to validate the address.

a. Call customer and verify address
b. Check local crossroads
c. Use GPS coordinates
d. Street Atlas
e. Google Earth
f. Tax Assessor
g. Drive By
h. Melissadata.com - website

2. Update screens with appropriate data.
3. If location can not be verified, an exception will be processed. See PREM-005 for details on exception process.

Volume:

Register 30 – 40 PREMISES per week
50% of these are Bovine, 50% other species

Exceptions – No more than 10 per month

Processing Time:

5 minutes without address exception (and system services available)
Two hours - up to a week (2 hours on line) for address exception

Documentation:

STATE PREMISES REGISTRATION SYSTEM GUIDE JSF (PREM-002)

Premises Exceptions (PREM-004)

Exceptions Processing Agreement 1.2 03-11-05 (PREM-005)

Notes/Comments

- Premises ID # stay with the physical location. Owners may change, but ID # does not.
- Exception processing may need further definition.
- To assign/allocate a PREMISES ID, a user must be authenticated or affiliated with an account that is authenticated with the USDA. This is done outside the PREMISES processing.

Procedure #3: PR03 – client communications and card Creation

Process Description:

After the National Premises ID is obtained and the AISS is updated with the National PREMISES ID and location information, a letter is sent to the client with the National PREMISES ID number (a copy of the letter is kept). Once a week, a card printer program generates new cards. The card, with an additional letter is sent to the customer

Participants:

- Clients/Customers – for clarification of data
- Michigan Department of Agriculture
- DIT (Technical Support)

Inputs:

- National PREMISES ID #

Outputs:

- Notification Letter
- CARD

Steps:

1. Give copy of summary page to Kim Felice Create paper file.
2. Cards are printed based on AISS data.
3. When card is created, generate letter via WORD template and mail letter and card to customer.

Volume:

Register 30 – 40 PREMISES per week
50% of these are Bovine, 50% other species

Cards – 30 – 40 per week (includes requests for replacement cards, new PREMISES ID, etc.

Processing Time:

Cards are generated to twice a week.

3 - 5 Minutes per PREMISES ID

Documentation:

PREM-007 – Premises Card Letter

Notes/Comments

- Card generation is automatic based on new national premises id or if card is requested.

Procedure #4: PR04 - Export

Process Description:

A daily export is done from AISS to the National Farm Animal Identification & Records (FAIR) and the Generic Database (GDB). This export is done by date stamp

Participants:

- Clients/Customers – for clarification of data
- Michigan Department of Agriculture
- DIT (Technical Support)

Inputs:

- National PREMISES ID # and account in SPRS

Outputs:

- Exported files

Steps:

1. None provided. Done automatically

Volume:

UNKNOWN

Processing Time:

Documentation:

Sources:

Notes/Comments

- **Batch Load** – used in past to load data from SPRS to XML file Not currently used but could be used in future

APPENDIX E: ANIMAL TAGGING AND INVENTORY NARRATIVES

Procedure #1: TAG 01 – Order RFID tags

Process Description:

The Animal Industry Act authorizes the Michigan Department of Agriculture (MDA) Director to develop, implement, and enforce scientifically based movement restrictions and other requirements, including official identification of animals for movement between or within zones established to control the spread of bovine TB in the State (MCL 287.709(8)). In January 9, 2006, the Agriculture Commission approved a proposed zoning order to require, among other things, that all cattle be identified with an official RFID ear tag before being moved from premises in Michigan, unless exempted by the MDA director. The order was approved by the MDA Director on February 9, 2007.

In order to obtain the RFID tags, a livestock facility must register with the MDA and receive a PREMISES ID (National). Once registered, the owner may purchase tags through the MDA or authorized suppliers. Each tag is assigned a 15-digit identification number, which contains a three-digit country code and is tied to the premises identification number, allowing it to be traced quickly to the animal's place of origin.

There are currently two types of tags. The 900 series tags (982, 985) stay within the state. The 840 tag are nationally tracked. The MDA is currently supporting both series, but there is a push to eliminate the 900 series and only utilize the 840 tags

When ordered, 840 series tags must be registered with the USDA within 24 hours of issuance. The 900 series tags do not have this requirement.

Participants:

- Clients/Customers/Producers
- 3rd Party Requestors – Holstein
- Allflex USA, Inc.
- Michigan Department of Agriculture
- United States Department of Agriculture (USDA)

Inputs:

- Request for Tags
  - Phone request
  - Website Request

Outputs:

- RFID Tags

Steps:

1. Request is received from the customer via phone or website application. The customers/client/producers can obtain tags via three sources: Michigan Department of Agriculture (MDA – Atlanta office), Holstein Association or a Distributor.
    a. MDA– order 'inventory' of tags kept at the Atlanta office. These are 'emergency' supply tags only.
    b. Distributor – order 'inventory' of tags. These are kept at the Distributor.
2. Holstein takes orders from the customers, MDA or Distributors.
3. Holstein orders tags from Allflex USA, Inc.
4. Allflex records PREMISES ID number and ships the tags.
5. Allflex updates the Holstein National Farm Animal Identification & Records (FAIR) system and the Animal Identification Number (AIN) system.

Volume:

1.2 million 840 Tags
Less than 5000 – 982/985 tags

Processing Time:

Distributors – Time to receive tags: 10 – 12 days

References/Documentation:

www.allflexusa.com

www.holsteinusa.com

www.michigan.gov/mda

Notes/Comments

Holstein creates and sends an invoice to the organization that is providing payment

Procedure #2: TAG 02 – Animal tagging

Process Description:

In January 2006, the Agriculture Commission approved a proposed zoning order to require, among other things, that all cattle be identified with an official RFID ear tag before being moved from premises in Michigan, unless exempted by the MDA director. This includes movement from Producer to Producer or to Market. This also includes youth exhibitors that will need to their animal(s) identified using an RFID tag Any out of state exhibitors who exhibit in Michigan at any show need an RFID tag

Tagging of animals is done in one of three situations

- By Producer on their site
- By Field Veterinarians during test procedures
- At Market

Producers are not required to tag animals unless they are being moved. In the Modified Accredited Zone (MAZ) the herds are subject to annual whole herd TB testing. In the Modified Accredited Advanced Zone (MAAZ) the herds are not subject to the same level of testing. Therefore, the number of tags in the system at any time may not be representative of the cattle population.

Participants:

- Clients/Customers/Producers
- 3rd Party Requestors - Holstein
- Michigan Department of Agriculture
- Fee Basis Vets
- Markets
- United States Department of Agriculture (USDA)

Inputs:

- Tags

Outputs:

- Updated FAIR database

Steps:

PRODUCERS

1. Tags are received from supplier (MDA – Atlanta Emergency Only, Distributor, and Holstein/Allflex).
2. Producer uses applicator to attach tag to the left ear of the animal.
3. If desired, the Producer can go to the Holstein FAIR website to update the inventory information and add the basic animal information to the tag record. (www.nationalFAIR.com)

FIELD VETS

1. When a Field Veterinarian goes to a PREMISES site to do testing, they will apply tags to all animals eligible for testing (older than 12 months) that haven't been previously tagged or the tag has been lost.
2. If the Field Veterinarian is a Fee Basis Vet (this is a veterinarian in the private sector that is paid a fee for each test they perform), they may not have the equipment to do electronic tracking of the animal. If they do, they follow the Field Vet process.
   a. Fee Basis Vet uses applicator to attach tag to the left ear of the animal.
   b. Fee Basis Vet is required by law to capture all available data on the test form (5 – copy carbon form). Information includes:
      - Any additional identification (bangle tags, non-official metal ear tags, neck chain numbers, tags, brands, horn numbers, tattoos, names)
      - Breed
      - Sex
      - Approximate age
      - Owner Information
3. If the Field Veterinarian is a not a Fee Basis Vet (this is a veterinarian employed by the MDA), they use hand held units to do electronic tracking of the animal.
   a. Field Vet uses applicator to attach tag to the left ear of the animal.
      - At time of testing, the Field Vet uses the hand held to record the necessary data.
   b. Tags are packaged in strips of 5 The Field Vet will apply the required tags. If there are tags left over in the package of 5, the information for the remaining tags is given to Gary at MDA – Atlanta to be recorded with the PREMISES ID for the site. Tags are left with the Producer.

c Base information is recorded at time of testing.

4. See TB Testing Process (TAG 03) for specific testing procedures.

MARKETS

1. Producers may bring cattle to market without the tags physically attached, but be in possession of the tags (The Producer may not have the proper equipment to attach the tag.) The Market will assist in attaching the tag before the animal is processed.

2. If cattle are brought to a market without a tag attached and the Producer does not have tags, the Market will apply a tag from the Market inventory before processing.

   a Market worker uses applicator to attach tag to the left ear of the animal.

   b Basic information is recorded on the Tag Allocation Sheet.

   - Tag # Issued
   - Back Tag
   - Date Issued
   - Name of Producer
   - Full Address
   - Prem ID
   - Type of Animal

3. Tag ID information is recorded by the Tag Reader during processing. Note: No other animal data is recorded.

4. The Market sends the Tag Allocation Sheet(s) to Casey at MDA on a monthly basis

5. Casey manually moves tag information to the new owner in the FAIR database.

Volume:

- Approximately 200,000 tagged cattle are processed to slaughter annually
- 80% of cattle population in Modified Accredited Advanced Zone (MAAZ) in lower Michigan
- Approximately 300 Fee Basis Vets in state. Approximately 25 of those vets have electronic equipment.

- Only 5% of Producers use Holstein FAIR website to record animal data
- Tag Loss – approximately 10% per year
- Markets - 14
- MDA Vets – 17
- USDA Vets in Michigan - 11

Processing Time:

References/Documentation:

Tag Allocation Sheet (Inventory Tracking Sheet) – TAG-002, TAG-003

Tuberculosis Test Record(s) – TAG-004, TAG-005

www.holsteinusa.com

www.michigan.gov/mda

Notes/Comments

- Producers that have 6 or less in herd and do not breed or distribute (are used for freezer beef) are not subject to testing.

PROCEDURE #3: TAG 03 – ANIMAL TESTING

Process Description:

The Bovine TB Eradication Project partners and the Michigan cattle industry have been working on the eradication of bovine TB since it was first identified in free-ranging white-tailed deer in northern Lower Michigan in 1995.

There are three identified zones for TB Testing in the State of Michigan. The first is the Modified Accredited Zone (MAZ) - includes the entirety of Alcona, Alpena, Antrim, Charlevoix, Cheboygan, Crawford, Emmet, Montmorency, Oscoda, Otsego, and Presque Isle counties, and those portions of Iosco and Ogemaw counties that are north of the southernmost boundaries of the Huron National Forest and the Au Sable State Forest The second is the Modified Accredited Advanced Zone (MAAZ). This includes the remainder of the lower peninsula. The Upper Peninsula is a TB Free Zone.

Testing is done for a variety of reasons.

- Annual Mandatory Whole Herd Testing (MAZ)
- Random Herd Testing (MAAZ, TB Free Zone)
- Complaint or request
- Movement Certificate Requirement

In the MAZ, all cattle herds must complete an annual whole herd bovine tuberculosis test of all cattle 12 months of age and older unless specifically exempted by the director. Retesting of herds must be done within 9-15 months of the anniversary date of the initial whole herd test.

In the MAAZ, all herds must obtain a premises identification number, and be placed into a database from which herds will be randomly selected for whole herd testing. Proportional samples of beef and dairy farms will be selected from each Michigan Agricultural Statistics Service agriculture district based upon the total number of farms in that district. Selection will occur on a two-year cycle. Selected herds or herds selected as a replacement for herds determined ineligible for testing, shall be subject to whole herd testing of all cattle in the herd 18 months of age and older. This testing must occur within 90 days after the person responsible for herd management receives notification that a whole herd test under this surveillance program is due and necessary.

In the TB Free Zone, all herds must obtain a premises identification number, and be placed into a database from which herds will be randomly selected for whole herd testing. Proportional samples of beef and dairy farms will be selected from each Michigan Agricultural Statistics Service agriculture district based upon the total number of farms in that district. Selection will occur on a two-year cycle. Selected

herds or herds selected as a replacement for herds determined ineligible for testing, shall be subject to whole herd testing of all cattle in the herd 18 months of age and older. This testing must occur within 90 days after the person responsible for herd management receives notification that a whole herd test under this surveillance program is due and necessary

Participants:

- Clients/Customers/Producers
- Michigan Department of Agriculture
- Fee Basis Vets
- United States Department of Agriculture (USDA)

Inputs:

- Request for Testing
- Letter requiring testing
- Movement Request

Outputs:

- TB Tests administered
- Updated herd inventory information

Steps:

TEST SCHEDULING

Modified Accredited Advanced Zone (MAAZ) and TB Free Zone

1. MDA – Lansing queries the Animal Industry Support System (AISS) annually to obtain list of all PREMISES in MAAZ.
2. List is given to MSU. MSU does a random sorting to generate the list to the MDA of PREMISES to be tested for the year.
3. Letter is sent to the Producer from MDA indicating they have been selected for testing. The list of PREMISES to be tested is sent to the USDA.
4. USDA is responsible to assure all randomly selected sites are tested.

Modified Accredited Zone (MAZ)

1 Every site is tested annually.

2. Testing schedule is done by MDA – Atlanta. MDA – Atlanta tracks the scheduling of testing for this zone Through the HERDS Calendar/HERDS database.

PRE-TESTING

Non-electronic Testing/Reporting

1. Fee Basis Vets may not have the capability to scan and report results electronically using a hand held unit. For this group, there is no upload of existing inventory data
2. Fee Basis Vet completes and submits a pre-approval form to assure payment will be made for testing. For the MAAZ, the form is sent to MDA – Lansing (Carrie). For the MAZ, the form is sent to MDA – Atlanta (Beth) and MDA – Lansing (Casey).
3. For the MAZ, the MDA – Lansing (Casey) pulls the pre-test inventory from FAIR. This is kept until testing is complete to use in Inventory Reconciliation.

Electronic Testing/Reporting

1. Field Vet downloads the animal inventory for the PREMISES ID that is going to be tested. This is done by docking the PDA to the computer and using through 'RegTesting' or 'TBMiMs' software to download to the handheld.
2. Once inventory is downloaded, the Field Vet creates a Test Session for the herd. The following data is recorded as part of the creating the Test Session.
   - Test Type (Caudal fold CFT – default, CT Cervical (Bovine))
   - Test Date

- Test Time
- Test Reason (area, accreditation, milk ordinance, sale-show, imported, retest, tracing reg kill, tracing reactors, tracing exposed, other)
- Agreement cod
- Pay Code
- Whole herd test?
- Herd Size

3. After the Test Session is created and saved, the program is exited ("Exit Program"). Data transfer is performed when the program is exited.

TB TESTING

Non-electronic Testing/Reporting

1 Complete required information on Test Record for each animal

NOTE: Fee Basis Vet is required by law to captures all available data on the test record (5 – copy carbon form). Information includes:

- Tag ID Number (if available)
- Any additional identification (bangle tags, non-official metal ear tags, neck chain numbers, tags, brands, horn numbers, tattoos, names)
- Breed
- Sex
- Approximate age
- Owner Information

2 Inject the animal.

3. Wait required 72 hours ± 6 hours.

4 Field Vet returns to the PREMISES to read the tests.

5. If any animal is suspect (test may be positive or inconclusive), contact the MDA office to set up additional testing.

6. If any animals are missing - injected but not observed - the Field Vet works with Producer to reconcile.

7 Send test records to MDA – Lansing office (Casey)

Electronic Testing/Reporting

1. Scan animal tag and inject the animal (The scan will populate the AIN/RFID field on the record.)

2. If the Tag ID is not in the inventory, Field Vet is prompted to create at new record and fill in the required fields in the animal record (Age, Sex, and Breed). Also enter any other available information or identifications.

3. If the animal does not have a RFID tag but another official ID (in the MAAZ, random selected sight, no intention of moving animals, not required to tag),

select the appropriate ID button on the Main Inject screen and enter the identification information.

4. Wait required 72 hours ± 6 hours.
5. In the MAZ, during 72 hour wait, Field Vet runs IRaDP report to determine if there are any discrepancies between downloaded inventory and injected animals.
6. Field Vet returns to the PREMISES to read the tests. Scan the tag. Test results default to NEGATIVE. If the test result is negative, no other steps are needed. Scan the next animal.

   Note: If the animal does not have a RFID tag but another official ID (in the MAAZ, random selected sight, no intention of moving animals, not required to tag), select the appropriate ID button on the Main Observe screen and enter the identification information.
7. If any discrepancies were identified, see Procedure TAG 04
8. If the test result is not NEGATIVE, tap the "Last Animal" section to go to the "Animal Information" screen. Enter the appropriate observation (suspect, reactor, died, incomplete, not tested). Tap OK. Scan the next animal.
9. If POSITIVE or SUSPECT, perform additional tests (Gamma or C/C test). This may require additional 72 hours ± 6 hours.

RECORD DOWNLOAD AND PRINTING

Non-electronic Testing/Reporting

1. MDA – Lansing separates charts by NEGATIVE and SUSPECT
2. NEGATIVE
   - MDA-Lansing files report copy in PREMISES file
   - Code Test Charts and update AISS
3. SUSPECT – held in ACTIVE file until resolved by Field Vet
4. Copy sent to USDA to be coded in FAIR.

Electronic Testing/Reporting

1. Transfer is done from hand held unit to the Field Vet desktop computer to upload in FAIR. (Field Vet uses RegTesting, TBMIMs or FAIR-FILE Manager to perform the download.)
2. Field Vet prints three copies of the report. These are distributed to 1) Producer, 2) USDA and 3) MDA – Lansing. (Note: In the MAZ, copies for USDA and MDA go to the MDA – Atlanta first and then passed on to the MDA – Lansing for distribution.)

3. NEGATIVE – MDA-Lansing files report copy in PREMISES file
4. SUSPECT – held in ACTIVE file until resolved by Field Vet
5. Verify test record is in FAIR by spot checking FAIR

Volume:

MAZ

- Approximately 1000 Herds
- All herds are tested and inventoried every year
- Additional individual PREMISES test – approximately 700 herd
- All tested/reported electronically

MAAZ

- Approximately 12,000 herds total
- ± 1000 herds tested yearly
- Mix of paper and electronically tested/reported

TB Free Zone

- Approximately 300 herds
- Approximately 25 PREMISES testing per year
- Mix of paper and electronically tested/reported

Processing Time:

References/Documentation:

RegTesting General Manual Michigan Version 206 Final Draft (TAG-006)

Tuberculosis Test Record (VS Form 6-22, TAG-004)

www.holsteinusa.com

www.michigan.gov/mda

Notes/Comments

- TB Testing: If an animal is not scanned on the inject day, they may be scanned on the observe day.
- File transfers are done automatically to update other systems
  - FAIR updates AISS (Frequency – 2X week)
  - AISS updates FAIR and GDB (Frequency – Daily)

Procedure #4: TAG 04 – inventory reconciliation

Process Description:

As recommended by the recent federal program review, and required by the recently signed Memorandum of Understanding (MOU), each cattle herd tested for bovine Tuberculosis (TB) by state or federal personnel in the Modified Accredited Zone (MAZ) will undergo annual inventory reconciliation. Each herd tested by accredited fee-basis veterinarians in the Modified Accredited Zone will also undergo annual inventory reconciliation. This will be completed by state or federal personnel within 60 days following the whole herd test.

Inventory reconciliation is the process of accounting for any changes in herd population over time. This includes:

- Animals that have died on the farm
- Animals that have been retagged
- Animals that have entered the farm from other zones prior to the requirement for movement certificates.
- Animals that have left or entered the farm without evidence of appropriate permitting
- Animals that are reported as unknown by the owner

When records do not match the FAIR database records, reconciliation will be done. The Field Vet works with the producer and their documentation to explain the change

The information obtained during the reconciliation includes:

- Herd owner name, address, phone, PREMISE, Test Chart #
- Current whole herd test date, reconciliation date
- Number of animals reconciled, # of retags, # of dead animals, # of purchased additions, # of natural additions, # of slaughtered, # animals moved to/from
- Number of animals unaccounted for
- Producer's reasons for unaccountable animals

Investigations yes/no

Participants:

- Clients/Customers/Producers
- Holstein Association
- Michigan Department of Agriculture
- United States Department of Agriculture (USDA)

Inputs:

- Downloaded FAIR Inventory
- Current Test Inventory
- Producer Information

Outputs:

- IRDaP Report

Steps:

DURING TESTING

Phase 1a – During Electronic Testing/Reporting (Regulatory Vets)

1. Testing veterinarian does the initial herd injection and captures the current herd inventory on the PDA
2. Testing veterinarian runs the IRDaP program to compare the testing inventory vs. the FAIR inventory, and identifies any discrepancies.
3. Testing veterinarian checks the FAIR system for discrepancies
4. Testing veterinarian discusses discrepancies with herd owner upon returning to do the reading
5. Testing veterinarian completes the Inventory Reconciliation Report and submits to the MDA – Atlanta within 7 days.

Phase 1b - After Electronic Testing/Reporting (Fee Basis Vets)

1. For the MAZ, the MDA – Lansing (Casey) pulls the pre-test inventory from FAIR.
2. After Test Records are received, MDA – Lansing downloads the post test inventory from FAIR and runs the IRDaP-FAIR program
3. MDA – Lansing checks the FAIR system for discrepancies
4 If determined, contact owner to discuss discrepancies.
5 MDA – Lansing completes the Inventory Reconciliation Report

Herds with no discrepancies

1 MDA – Atlanta tracks that report was completed, and submits the Inventory Reconciliation Report to MDA – Lansing.
2. Casey enters the data into the IR database

Herds with discrepancies

1. MDA – Atlanta sends the Inventory Reconciliation report and Test Records to either compliance or the AIC for investigation.
2. Compliance investigates and utilizes the normal compliance process, and not reported in the IR database
3. AIC investigates, fills out the investigation results section, and returns the IR report to ATL (21 days)
4. ATL tracks that it was completed, and submits IR report to LAN
5. Casey enters the data into the IR database

COMPLIANCE INVESTIGATION/Phase 2

TBD

Volume:

All in the MAZ must have inventory reconciliation completed.
At least 15% of all PREMISE/Herds tested need investigation

Processing Time:

References/Documentation:

IR flow chart 020408 (TAG-008)

IR SOP phase 1 draft 021108 (TAG-009)

IRDaP Report (TAG-010)

IRDap Worksheet (TAG-011)

Procedures for Inventory Reconciliation Database Program (TAG-012)

Procedures for Inventory Reconciliation Fee-Basis (TAG-012)

Procedures for Inventory Reconciliation Hand Processing (TAG-013)

www.michigan.gov/mda

Notes/Comments

Process was drawn from provided documentation to supplement the brown paper.

APPENDIX F: MOVEMENT CERTIFICATE ISSUANCE NARRATIVES

Procedure #1: MV 01 – Request movement certificate (Pre-MOvement)

Process Description:

Michigan cattle producers must obtain Movement Certificates to move cattle in Michigan between federally established Bovine Tuberculosis zones (interzone) under defined movement guidelines.

Michigan has "split state status" for bovine TB. The Upper Peninsula is designated as TB-free. The northern Lower Peninsula is the Modified Accredited Zone (MAZ). The southern Lower Peninsula is the Modified Accredited Advanced Zone (MAAZ). Guidelines for movement certificates are as follows.

- Cattle originating in the Upper Peninsula do not need a certificate
- Cattle originating in the MAAZ being moved within the MAAZ do not need a certificate
- Cattle originating in the MAAZ moving to the MAZ need a Movement Certificate
- Cattle originating in the MAZ moving to the MAAZ need a Movement Certificate
- Cattle originating in the MAZ must be re-permitted for any subsequent movement in the MAAZ
- Cattle moving within the MAZ need a moving permit. (MAZ to MAZ)

A Movement Certificate can be requested before the actual movement online through the FAIR website or by calling or faxing the MDA office in Atlanta or Lansing. In addition, a Movement Certificate (in the form of an Interstate Health Certificate – IHC) can be obtained from a licensed veterinarian or from USDA/MDA field staff at market processing A producer must have a PREMISES id to receive a Movement Certificate.

Cattle moved from the MAAZ to a USDA approved Livestock Market do not need to obtain a Movement Certificate prior to movement

A request made ahead of the movement event to the MDA (Atlanta, Lansing) or through FAIR is processed by the MDA office staff. Processing for an Interstate Health Certificate or processing by USDA/MDA staff at market is handled after the issuance.

In cases where the MDA is not available to provide a movement certificate (weekend, OTHER CIRCUMSTANCES???), a licensed veterinarian may issue an Interstate Health Certificate The IHC is accepted in place of the Movement

Certificate. After the issuance, the veterinarian provides a copy of the IHC to the MDA for processing in the FAIR system.

Participants:

- Producers
- MDA (Lansing, Atlanta)
- USDA
- Licensed Vets

Inputs:

- Request for Movement Certificate or IHC

Outputs:

- Movement Certificate

Steps:

Producers - FAIR

1. Producer logs into the FAIR website (www.nationalfair.com)
2. The producer must provide the following information:
   - A complete address of where the animals are coming from.
   - A complete address of where the animals are going to
   - Contact phone numbers for both the seller and the buyer.
   - A Michigan or National Premises ID for both the origination address and the destination address.
   - The date the animals will be moving.
   - Radio Frequency ID (RFID) tag number for each animal being moved.
   - The age, breed and sex of each animal being moved.
   - The dates of the last Tuberculosis test for each animal, along with test chart number and the name of the veterinarian that performed the test. A copy of the test must be on file or faxed to the Lansing office before the certificate can be issued to the producer. This information is only necessary if the FAIR database does not have the most recent testing information required for animal movement
3. If information is verified by FAIR to be complete and correct, a Movement Certificate is created in FAIR with a status of "Pending".

MDA Offices - Telephone/Fax or Walk-in Request

1. Producer requests Movement Certificate by phoning, faxing, emailing or going to the MDA office (Atlanta, Lansing).
2. The MDA office staff requests the required information. If the processing can not be done immediately, the information is written down for processing later.
   - A complete address of where the animals are coming from
   - A complete address of where the animals are going to.
   - Contact phone numbers for both the seller and the buyer.
   - A Michigan or National Premises ID for both the origination address and the destination address.
   - The date the animals will be moving.
   - Radio Frequency ID (RFID) tag number for each animal being moved.
   - The age, breed and sex of each animal being moved.
   - The dates of the last Tuberculosis test for each animal, along with test chart number and the name of the veterinarian that performed the test. A copy of the test must be on file or faxed to the Lansing office before the certificate can be issued to the producer. This information is only

necessary if the FAIR database does not have the most recent testing information required for animal movement.

Note: If the producer does not have a PREMISE ID, the MDA office staff will create a new PREMISES ID before processing the Movement Certificate.

Licensed Veterinarian – Interstate Health Certificate

1. Producer requests IHC from a licensed veterinarian.
2. The veterinarian completes the Interstate Health Certificate (MC_012).
   a. Complete names/addresses of the buyer and seller
   b. Address of the destination if different from buyer address.
   c. Description of the animals by RFID PREMISES ID, breed, sex and age.
   d. Date of the certified TB testing
   e. Intended use of cattle
   f. Health status of the livestock
   g. Number of prior entry permit issued
3. All IHC spaces are to be completed. The veterinarian must sign the IHC.
4. Copy of the form is given to the producer. The veterinarian keeps one copy.
5. The veterinarian must send the 3rd copy to the MDA - Lansing within 10 days of issuance.

Volume:

MDA – Atlanta – Average 30 movement certificates per day

IHC – Less than 2 per month average

Processing Time:

References/Documentation:

- www.nationalfair.com
- Movement Certificates Lansing Office 10252007 (MC_001)
- Mvmt Certs Telephone Issue ProcedMDA AID 102507 (MC_002)
- livestockmovementQnA_212382_7.pdf (MC_004)
- FAIR Movement Certificates User Guide (MC_011)
- Movement Certificate Form (MC_015)
- Official Interstate Certificate of Veterinary Inspection for Livestock (MC_016

Notes/Comments

- As of March/2008, the Northern Michigan Livestock Association sale yard in Gaylord, MI has been designated as a USDA approved.

Procedure #2: MV 02 – sale yard processing

Process Description:

Michigan cattle producers must obtain Movement Certificates to move cattle in Michigan between federally established Bovine Tuberculosis zones (interzone) under defined movement guidelines.

Producers moving cattle to the Northern Michigan Livestock (Gaylord) sale yard do not need a Movement Certificate for the first move to the yard.

Producers may obtain an initial Movement Certificate for animals moving from the MAAZ when they arrive at an accredited sale yard. MDA or USDA personnel are present at the sale yard on the day of the sale to complete hand written Movement Certificate.

When cattle move from the MAZ to a market in the MAAZ to another location, the cattle must be re-permitted. Upon sale of each permitted animal, the MDA/USDA field staff will issue a Movement Certificate to the final destination that includes the original permit number in the comments section. If the animal is restricted to movement directly to slaughter, the Movement Certificate must be signed by the buyer prior to movement.

Participants:

- Producers
- MDA (Lansing, Atlanta)
- USDA
- Sale yards

Inputs:

- Cattle at sale yard

Outputs:

- Movement Certificate

Steps:

Livestock Markets

1. MDA and/or USDA review the animals to determine where animal can be moved based on where the animal originated
2. Field staff creates a hand written Movement Certificate. The permit designation is added to the form
    i. Out Zone – eligible to go anywhere in the state after the sale
    ii Slaughter – animal must go directly to a laughter facility because it does not meet regulatory standards for movement
    iii. In Zone – animal Is only eligible to return to its zone of origin
    iv. 2 Month – deacons under 2 months that originate from the UP, MAAZ, or a herd in the MAZ that has had a whole herd test within 12 months of sale
3. Buyer receives one copy of the Movement Certificates. The other copies are sent to MDA – Lansing.

Northern Michigan Livestock – Gaylord

1. Check-In
    a. Trailer delivers animals to check-in window
    b. A receipt is completed with owner info, back tag #'s, quantity and trucking fees (if applicable). Pink copy of receipt to truck driver
    c. Info is entered into the sale yard computer system
    d. MDA/USDA field staff creates written record of all animals brought to sale. Includes the following data:
        i. Back Tag #s assigned to load
        ii. Types of animals (deacon, cow, bull, feeder, fat)
        iii. Producer name and PREMISES city
        iv Movement eligibility
            1. T – animal is eligible to go anywhere in Michigan
            2. K – animal must go to slaughter

3. 2A – animal must either go to slaughter or return to the MAAZ

2 Animals are unloaded

3 Checking of Official ID

a. Animals are checked in for official ID (Note: All cattle must have RFID tag. See PREMISES processing for details.)

b Before RFID tags are scanned, cattle have the back tag glued to their bodies (Going to slaughter – right shoulder, not going to slaughter – right hip)

c Back tag is entered into PDA.

d. RFID is scanned and matched to the back tag (Alley scanner)

e. After scanning, the information is down loaded to the office laptop.

4. Verify the cattle movement eligibility.

a. Information sent to the office laptop includes:

i. Back tag number

ii. RFID #

iii. PREMISES ID

iv. Owner of the premise

v Date of the last whole herd test

vi. Date of the last TB test done on the animal

b. The PROGRAM on the sale yard laptop determines where animal can go. MDA and/or USDA review the determination every tag scanned. Decision is based on where the animal originated. The permit designation is added to the information for the tag in the laptop.

i. Out Zone – eligible to go anywhere in the state after the sale

ii. Slaughter – animal must go directly to a laughter facility because it does not meet regulatory standards for movement

iii. In Zone – animal Is only eligible to return to its zone of origin

iv. 2 Month – deacons under 2 months that originate from the UP,

MAAZ, or a herd in the MAZ that has had a whole herd test within 12 months of sale

5. Information from the laptop is sent to the sale yard computer system in real time

6 During the sale:

   a. The MDA/USDA field staff uses the written check in record and answers questions.

   b. The alley scanner communicates to the Gaylord sale software on the office computer.

   c A written record of the following information is kept:

      i. Back tag #

      ii. Seller

      iii. Buyer PREMISES ID

      iv. Weight and price/lb

      v. Brief description of animal (sex, breed and/or color)

7. After the sale

   a. Transfer data from the office computer to the laptop.

   b. Email copy to someone on field staff

   c. Email to FAIR

   d. FAIR creates movement permits

Rosebush Auction Market

1. Prior to Day of Sale

   a. Auction personnel verify vaccinations, pregnancy checks and market tags are administered – presale inventory reconciliation.

   b. Auction data recorded in database, including:

      1. Consigner information

      2. Weight

      3 Status of animal

2. During processing
    a. RFID tag is scanned. The data is recorded directly into the database.
    b. Purchaser information is recorded with the animal information
    c. Datasheet is printed after sale
    d. THEN WHAT??

Re-permitting

1. Done at the sale yard in the MAAZ.
2. The MDA/USDA field staff contacts the MDA – Atlanta regional office the morning of the sale to confirm issuance of permits and received (via fax) Movement Permits in the system for the day of the sale (no later than one hour before the start of the sale). In addition, Atlanta creates a Word document of each permit and emails to the appropriate field staff for that market for use to return the re-permitting information.
3. Upon the sale of each permitted animal, the field staff will issue a hand written Movement Certificate to the final destination. Field staff notes "Re-permit" on the upper right corner of the movement certificate. In the comments section, the original permit number is noted.
4. Regulatory personnel at livestock markets must send a copy of the fully completed Movement Certificate for each animal permitted from the MAZ to the Atlanta Regional Office within one week of the sale transaction.
5. MDA – Atlanta compare the Pre-sale Movement Permit Inventory to the animals permitted at the sale yard. Animals that do not show up to market are invalidated.
6. The field staff gives one copy of the Movement Certificate to the buyer. The other copies are sent to MDA – Atlanta (OR LANSING) within one week of the sale transaction.

Volume:

- MDA – Atlanta – Average 30 movement certificates per day
- IHC – Less than 2 per month average
- Rosebush – average 700 – 800 cattle sold every Wednesday. Note: not all are Michigan cattle
- Over ½ of the Movement Certificates are re-permits.

Processing Time:

References/Documentation:

- www.nationalfair.com
- Movement Certificates Lansing Office 10252007 (MC_001)
- Mvmt Certs Telephone Issue ProcedMDA AID 102507 (MC_002)
- Gaylord SOP (MC_009)
- Rosebush Flowchart of Operations for Scanning RFID (MC_007)
- Movement Certificate Form (MC_014)
- Movement Certificate – Example of Re-permitting (MC_015)
- Official Interstate Certificate of Veterinary Inspection for Livestock (MC_016)
- Re-permitting Protocol08102007 (MC_017)

Notes/Comments

- As of March/2008, the Northern Michigan Livestock Association sale yard in Gaylord, MI has been designated as a USDA approved.
- An entire lot of cattle may receive the same back tag number.

Procedure #3: MV 03 – MDA processing

Process Description:

Michigan cattle producers must obtain Movement Certificates to move cattle in Michigan between federally established Bovine Tuberculosis zones (interzone) under defined movement guidelines.

A request made ahead of the movement event to the MDA (Atlanta, Lansing) or through FAIR is processed by the MDA office staff. Processing for an Interstate Health Certificate or processing by USDA/MDA staff at market is handled after the issuance

For requests made to the MDA, office staff must verify the information is correct and complete. The staff verifies the information in FAIR. The FAIR online database has all the requirements for movement certificate built into the system. Once verified, the office staff will generate the movement certificate.

In cases where the MDA is not available to provide a movement certificate (weekend, OTHER CIRCUMSTANCES???), a licensed veterinarian may issue an Interstate Health Certificate The IHC is accepted in place of the Movement Certificate.

A producer may obtain of an initial Movement Certificate for animals from MAAZ when they arrive at an accredited sale yard. MDA or USDA personnel will be present at the sale yard on the day of the sale to complete the Movement Certificate. See Procedure #3.

Participants:

- Producers
- MDA (Lansing, Atlanta)
- USDA
- Licensed Veterinarians
- Sale yards

Inputs:

- Request for Movement Certificate or IHC
- Sale at sale yard

Outputs:

- Movement Certificate

Steps:

Producer Requests (Telephone/Fax or Walk-in Request)

1. Office staff verifies the information provided. If the information can not be obtained, a movement certificate cannot be issued to the producer.

No PREMISES ID for Seller or Buyer

a. If PREMISES ID is not known for either the seller or buyer, the information is verified in AISS. If there is no information in AISS for either party, the office staff will create a new PREMISES ID in AISS and SPRS. (See Premises Processing - Procedure PR01 – MI PREMISES PROCESSING)

b. Office staff may create a hand written Movement Certificate to the producer on the Movement Certificate form (MC_014) and enter the information into FAIR after receiving the PREMISES ID.

c. When the PREMISES ID is received, the necessary information is entered into FAIR.

2. Enter individual animal information into FAIR. This includes the age, breed and sex for each animal being moved. (Optionally, information about herd management numbers and alternate identification information can be entered.) Note: Animal information may already be in FAIR if there has been a previous Movement Certificate created or TB testing has been performed previously.

3. Verify each animal is listed in the seller's inventory. If they are not, the animals must be moved into the seller's inventory before proceeding with the processing.

4. FAIR will confirm that each animal has the required TB testing. IF the required testing is not listed in FAIR, office staff will need to obtain a copy of the test record before the Movement Certificate is issued. Once obtained, a movement override will be done to allow creation of the certificate.

5. Office staff generates the Movement Certificate through FAIR.

MDA – Lansing Processing for IHC, Sale Yard Movement Certificates

1. Copy (copies) of Movement Certificates are received at MDA – Lansing. Copy is distributed to the General Office Assistant (GOA) for processing.

2. GOA uses FAIR to enter the information. FAIR creates and electronic Movement Certificate.

3. GOA prints the Movement Certificate and attaches to copy to the IHC.

4. GOA creates three copies and files as follows:
    a. Buyer's file
    b. Seller's file
    c Market file (Carrie's office)

MDA – Atlanta

1. MDA – Atlanta re-permit each animal from the livestock to the final destination in FAIR within 48 hours of receiving the information.

Volume:

MDA – Atlanta – Average 30 movement certificates per day

IHC – Less than 2 per month average

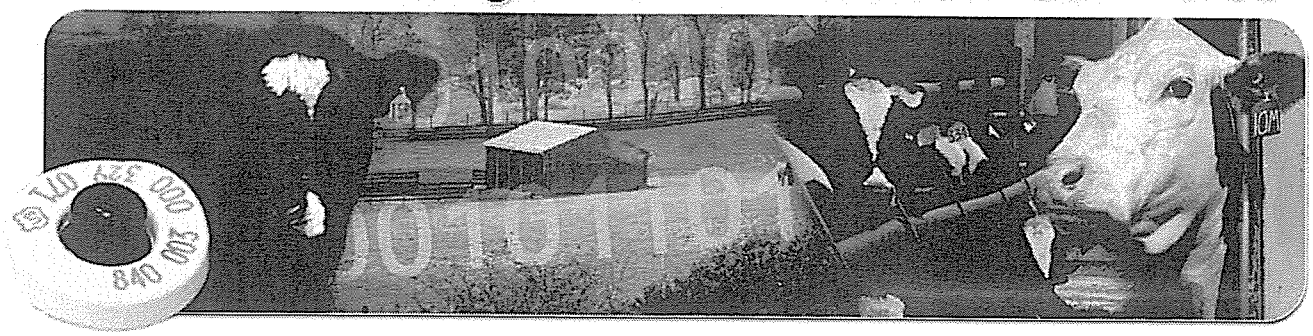
Processing Time:

References/Documentation:

- www.nationalfair.com
- Movement Certificates Lansing Office 10252007 (MC_001)
- Mvmt Certs Telephone Issue ProcedMDA AID 102507 (MC_002)
- FAIR Movement Certificates User Guide (MC_011)
- Movement Certificate Form (MC_015)
- Official Interstate Certificate of Veterinary Inspection for Livestock (MC_016)

Notes/Comments

Michigan RFID Education Task Force



Radio Frequency Identification Ear Tag Application and Management

All cattle leaving their premises in Michigan starting March 1, 2007, must be tagged with an RFID ear tag approved by the Michigan Department of Agriculture.

Radio frequency identification (RFID) ear tags should be applied according to the manufacturer's instructions. General procedures are outlined here to familiarize cattle producers with RFID tag application and management of the tags to optimize retention and readability.

RFID Tag Application

Radio frequency identification tags can be applied anytime following the birth of the animal. The applicator must be specifically made for the RFID tags to be used. Use of a different manufacturer's applicator or an applicator designed for other tag types will likely destroy RFID tags. Load the applicator according to the manufacturer's directions. For example, with round, half-duplex RFID tags, the raised portion of the tag, which contains the transponder chip and capacitor, should point outward so that they will not be squeezed in the jaws of the applicator (Figure 1). Putting excessive pressure on the transponder portion of the tag may damage it and make it unreadable by RFID readers. It is advised that the piercing portion of the tag (male stud) be dipped in an antiseptic or disinfectant solution immediately before tagging to speed the healing process. Some tags are available with a disinfectant preapplied. The animal's head needs to be held securely to allow the correct positioning of the tag in the ear. Applying an RFID tag generally takes more force than applying a bangle or metal tag because of the tamperproof design. The RFID tag also is applied to a thicker portion of the animal's ear than most bangle tags. When applying tags in cold weather, storing the RFID tags at room temperature will keep them pliable.

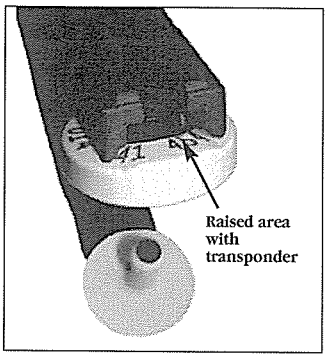


Figure 1.
Correct orientation of RFID tag in an applicator.

Recommended Tag Placement

Official RFID ear tags should be placed in the left ear. (The left ear is on the left side of the animal when it is viewed from behind.) The left ear is used because the U.S. Department of Agriculture (USDA) reserves the right ear for official calfhood vaccination tattoos. Therefore, RFID readers in markets and processors are optimized for a read zone on the left side of the animal. If the left ear of the animal is completely unusable (e.g., frostbitten, torn), the right ear may be used. The tags should be placed between the cartilage ribs about one-fourth of the distance from the head (Figure 2). This site will result in the greatest retention yet will allow for growth of the ear in immature animals. Tags placed too near the head will not have sufficient space between the two disks of the tag to allow the piercing to heal properly. Tags placed too far from the head will increase the probability of snagging on objects, reducing retention and making the animal's ear susceptible to tearing.

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The female part of the tag should always be placed on the inside of the ear with the male stud on the back of the ear. When tagged correctly, the disk of the male stud will lie flat against the back of the ear, resulting in the best tag retention. Ensure that the animal identification number on the backing stud corresponds to the number on the matching front before placing the tag.

An alternate tag location may be used but is suggested only for use in finishing animals. The alternate location is above the upper cartilage rib toward the curvature of the ear. This placement results in the male stud disk lying on top of the ear. This location may be preferred in situations where additional management procedures require extensive use of the back of the ear (e.g., implanting, vaccination, antibiotic therapy).

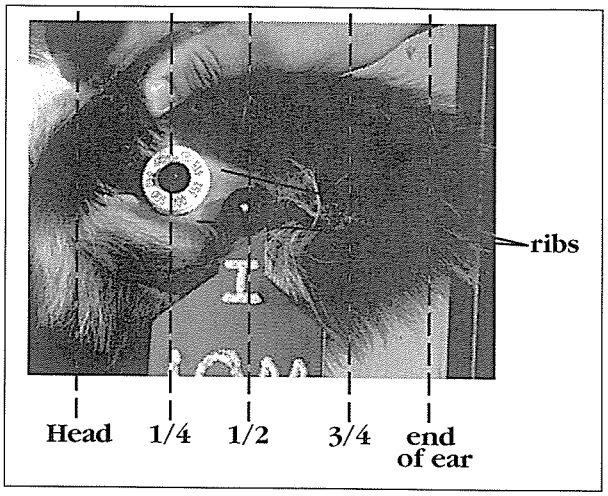

Figure 2. Proper placement of RFID and visual tags in the left ear.

Management Considerations

- Official RFID tags are intended to provide permanent identification of livestock and ensure the ability to find the source of animal disease outbreaks. **Removal of these tags is prohibited** except at the time of harvest. Official RFID tags each have a unique identification number, are intended for one-time use and should never be reused.
- Tag retention is enhanced when the animal's environment is kept free from objects that will catch on the tags (especially the backing disk). A common cause of tag loss is the presence of baling twine, which will snag the RFID backing disk. Cutting twine and removing it from bales being fed greatly enhances tag retention.
- If an official RFID ear tag is lost and it is necessary to retag an animal with a new official number (assigned to that premises), every effort should be made to correlate the new official number with the previous official number of the animal. A paper or computerized copy of this change should be kept on file at the animal's premises.

For more information or to obtain other fact sheets in this series, go to: **www.michigananimalid.com**.

Note: Brucellosis calfhood vaccination records should now use the official RFID tag animal identification number and do not require a calfhood vaccination orange metal tag.

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