

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLORADO  
Judge Robert E. Blackburn**

Civil Case No. 09-cv-02045-REB-CBS

TONI'S ALPACAS, INC., an Ohio corporation,

Plaintiff,

v.

NORMAN EVANS, individually,

Defendant.

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**ORDER**

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**Blackburn, J.**

The matters before me are (1) **Defendant Evans' Motion for Summary Judgment** [# 53],<sup>1</sup> filed August 17, 2010; (2) the **Motion of Defendant Evans To Exclude Opinions of Dr. Johnson and Dr. Van Saun** [#50], filed July 30, 2010; (3) **Defendant Evans' Motion To Exclude Portions of Testimony of Dr. Stachowski** [#51], filed July 30, 2010;<sup>2</sup> and (4) **Plaintiff's F.R.E. 702 Motion and Request for a Hearing Pursuant to F.R.E. 104** [#52], filed July 30, 2010. The matters have been fully briefed, obviating the need for oral argument or other hearing.<sup>3</sup> I grant defendant's

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<sup>1</sup> "[#53]" is an example of the convention I use to identify the docket number assigned to a specific paper by the court's electronic case filing and management system (CM/ECF). I use this convention throughout this order.

<sup>2</sup> As modified by the **Addendum to Plaintiff's Reply in Support of Its** [sic] **Rule 702 Motions** [#69], filed September 8, 2010.

<sup>3</sup> The issues raised by and inherent to the motion for summary judgment are fully briefed, obviating the necessity for evidentiary hearing or oral argument. Thus, the motion stands submitted on the briefs. Cf. **FED. R. CIV. P. 56(c)** and **(d)**. *Geeer v. Boulder Cmty. Hosp.*, 844 F.2d 764, 766 (10th Cir.1988) (holding that hearing requirement for summary judgment motions is satisfied by court's review of documents submitted by parties).

motion to exclude the testimony of plaintiff's experts Johnson and Van Saun, grant the motion for summary judgment, and deny the remaining motions as moot.

## I. JURISDICTION

I have jurisdiction over this matter pursuant to 28 U.S.C. § 1332 (diversity of citizenship).

## II. STANDARDS OF REVIEW

The motions focusing on the testimony of experts implicate Rule 702 of the Federal Rules of Evidence, which provides:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

**FED.R.EVID. 702.** As interpreted by the Supreme Court, Rule 702 requires that an expert's testimony be both reliable, in that the witness is qualified to testify regarding the subject, and relevant, in that it will assist the trier in determining a fact in issue.

***Daubert v. Merrell Dow Pharmaceuticals, Inc.***, 509 U.S. 579, 589-92, 113 S.Ct. 2786, 2795-96, 125 L.Ed.2d 469 (1993); ***Truck Insurance Exchange v. MagneTek, Inc.***, 360 F.3d 1206, 1210 (10<sup>th</sup> Cir. 2004). The Supreme Court has described the court's role in weighing expert opinions against these standards as that of a "gatekeeper." **See *Kumho Tire Company, Ltd. v. Carmichael***, 526 U.S. 137, 147, 119 S.Ct. 1167, 1174, 142 L.Ed.2d 248 (1999).

Under **Daubert** and its progeny, an expert opinion is reliable if it is based on scientific knowledge. “The adjective ‘scientific’ implies a grounding in the methods and procedures of science. Similarly, the word ‘knowledge’ connotes more than subjective belief or unsupported speculation.” **Daubert**, 113 S.Ct. at 2795. In short, the touchstone of reliability is “whether the reasoning or methodology underlying the testimony is scientifically valid.” **Id.** at 2796; **see also Truck Insurance Exchange**, 360 F.3d at 1210. The party proffering the expert opinion must demonstrate both that the expert has employed a method that is scientifically sound and that the opinion is “based on facts which enable [the expert] to express a reasonably accurate conclusion as opposed to conjecture or speculation.” **Goebel v. Denver and Rio Grande Western Railroad Co.**, 346 F.3d 987, 991 (10<sup>th</sup> Cir. 2003) (quoting **Gomex v. Martin Marietta Corp.**, 50 F.3d 1511, 1519 (10<sup>th</sup> Cir. 1995)).

Rule 702 demands also that the expert’s opinion be relevant, that is, that the testimony “fit” the facts of the case. **Daubert**, 113 S.Ct. at 2796; **In re Breast Implant Litigation**, 11 F.Supp.2d 1217, 1223 (D. Colo. 1998). “[T]he standard for fit is higher than bare relevance.” **In re Breast Implant Litigation**, 11 F.Supp.2d at 1223 (quoting **In re Paoli Railroad Yard PCB Litigation**, 35 F.3d 717, 745 (3<sup>rd</sup> Cir. 1994), **cert. denied**, 115 S.Ct. 1253 (1995)). The proffered evidence must speak clearly and directly to an issue in dispute in the case. **Id.**

Guided by these principles, the court has broad discretion in determining whether expert testimony is sufficiently reliable and relevant to be admissible. **Truck Insurance Exchange**, 360 F.3d at 1210; **Smith v. Ingersoll-Rand Co.**, 214 F.3d 1235, 1243 (10<sup>th</sup>

Cir. 2000). The overarching purpose of the court's inquiry is "to make certain that the expert . . . employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." **Goebel**, 346 F.3d at 992 (quoting **Kumho Tire Company**, 119 S.Ct. at 1176).

With respect to the motion for summary judgment, the entry of summary judgment is proper when there is no genuine issue as to any material fact and the movant is entitled to judgment as a matter of law. **FED.R.CIV.P.** 56(c); **Celotex Corp. v. Catrett**, 477 U.S. 317, 322, 106 S.Ct. 2548, 2552, 91 L.Ed.2d 265 (1986). A dispute is "genuine" if the issue could be resolved in favor of either party. **Matsushita Electric Industrial Co., Ltd. v. Zenith Radio Corp.**, 475 U.S. 574, 586, 106 S.Ct. 1348, 1356, 89 L.Ed.2d 538 (1986); **Farthing v. City of Shawnee**, 39 F.3d 1131, 1135 (10<sup>th</sup> Cir. 1994). A fact is "material" if it might reasonably affect the outcome of the case. **Anderson v. Liberty Lobby, Inc.**, 477 U.S. 242, 248, 106 S.Ct. 2505, 2510, 91 L.Ed.2d 202 (1986); **Farthing**, 39 F.3d at 1134.

A party who does not have the burden of proof at trial must show the absence of a genuine fact issue. **Concrete Works, Inc. v. City & County of Denver**, 36 F.3d 1513, 1517 (10<sup>th</sup> Cir. 1994), **cert. denied**, 115 S.Ct. 1315 (1995). By contrast, a movant who bears the burden of proof must submit evidence to establish every essential element of its claim or affirmative defense. **See In re Ribozyme Pharmaceuticals, Inc. Securities Litigation**, 209 F.Supp.2d 1106, 1111 (D. Colo. 2002). In either case, once the motion has been properly supported, the burden shifts to the nonmovant to show, by tendering depositions, affidavits, and other competent evidence, that summary

judgment is not proper. **Concrete Works**, 36 F.3d at 1518. All the evidence must be viewed in the light most favorable to the party opposing the motion. **Simms v. Oklahoma ex rel Department of Mental Health and Substance Abuse Services**, 165 F.3d 1321, 1326 (10<sup>th</sup> Cir.), **cert. denied**, 120 S.Ct. 53 (1999).

### III. ANALYSIS

The single claim remaining in this lawsuit is one for professional negligence against defendant, a veterinarian. Specifically, plaintiff alleges that defendant was negligent in recommending to Dr. Toni Cotton that she double the ration of a supplement called Fiber Nutrients fed to her alpacas when the herd was relocated from Ohio to Colorado in mid-2006, on the theory that the change in climate and altitude would dry out the animals' fiber, or fleece. Plaintiff alleges that defendant knew or should have known that the inclusion of this supplement would increase the fat in the alpacas' diet to unreasonably dangerous levels. Plaintiff claims that as a result of their high fat diet, nine alpacas died, while others suffered other deleterious effects, such as fiber loss, pregnancy toxemia, reduced weaning weights, altered sex ratio of newborn animals, and other sub-clinical effects that may manifest in the future.

To make out a claim of professional negligence, plaintiff must demonstrate that defendant breached the standard of care, that is, that he failed to exercise the degree of skill and competence ordinarily possessed by veterinarians in the same or similar circumstances.<sup>4</sup> **See Hamilton v. Thompson**, 23 P.3d 114, 115 (Colo. 2001).

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<sup>4</sup> Although plaintiff argues extensively that defendant should be held to the higher standard of care applicable to veterinarians who specialize in alpaca nutrition, ultimately it is irrelevant which standard is used, since the expert testimony is inadmissible regardless.

Because such matters are beyond the ken of a lay jury, plaintiff must establish breach of the standard of care by expert testimony. *Id.*; **Williams v. Boyle**, 72 P.3d 392, 397 (Colo. App. 2003).<sup>5</sup> In addition, to establish its claim, plaintiff must prove causation. **See Redden v. SCI Colorado Funeral Services, Inc.**, 38 P.3d 75, 80 (Colo. 2001).

Plaintiff proffers Dr. Robert Van Saun and Dr. LaRue Johnson to establish these essential elements of its claim. Both experts opine essentially that the deaths and other effects suffered by plaintiff's alpaca herd were related to excessive fat in the diet from the combination of Fiber Nutrients with the alpacas' regular feed, Pac-a-Nutrition, which contained allegedly significant amounts of flax.<sup>6</sup>

However, the methodologies employed by these experts in reaching this conclusion are problematic. First, I note that both experts' opinions are premised on the assumption that there was an alteration in the flax content of Pac-a-Nutrition, immediately prior to the time plaintiff's herd began experiencing problems in early 2008.<sup>7</sup> (**Final Rpt. of Dr. Van Saun** at 22 [#50-1], filed July 30, 2010; **Rev'd Op. of Dr. Johnson** at 6 [#50-2], filed July 30, 2010.) If, as defendant maintains is the case, the

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<sup>5</sup> I note also that plaintiff filed a **Certificate of Review** ([#12], filed October 26, 2009), in this case, thus, acknowledging that expert testimony is necessary to prove up its claim of professional negligence against defendant. §13-20-601, C.R.S.

<sup>6</sup> Both experts suggest also that the mineral, and specifically the iron and copper, content of the diet may have played a role in the effects seen within the herd. However, defendant is not alleged to have been negligent in regard to the mineral content of the diet, except to whatever extent it interacted with the fat content of the diet. (**See Final Pretrial Order** ¶ 3.a. at 2 [#64], filed September 1, 2010.)

<sup>7</sup> In addition, both experts agreed that the relatively small amount of Fiber Nutrients in the diet was far less of a concern than the amounts of fat in Pac-a-Nutrition, which was fed in significantly greater amounts and was the primary source of non-forage-based fat in the diet. (**See Depo. of Dr. Van Saun** at 94-95 [#50-3]; **Depo. of Dr. Johnson** at 159-161 [#50-4], filed July 30, 2010.) In fact, Dr. Johnson admitted that Pac-a-Nutrition itself could have been sufficient to cause the allegedly toxic levels of fat in the diet, but ultimately could not state it to a reasonable probability because of the lack of scientific study. (**Depo. of Dr. Johnson** at 160-161 [#50-4].)

Pac-a-Nutrition formula had not changed since 2004, Dr. Van Saun admitted that it was unlikely that the level of fat in the diet would have been the cause of the problems experienced in the herd. (**Depo. of Dr. Van Saun** at 200-201 [#50-3], filed July 30, 2010.)<sup>8</sup> As defendant points to no record evidence actually establishing the allegedly undisputed fact of Pac-a-Nutrition's formulation, however, this purported infirmity is inchoate on the record before me.

More concretely, both experts acknowledge that there is a glaring lack of controlled, scientific studies of the effects of any particular type of diet, let alone a higher fat diet, on the health of alpacas. (**See Final Rpt. of Dr. Van Saun** at 5-6 [#50-1] ("The other major challenge in attempting to understand the source of the problem is the lack of documented data addressing such issues in camelids. There is a myriad of clinical observations and anecdotal information, but extremely limited controlled studies to address nutritional diseases in camelids."); **Rev'd Op. of Dr. Johnson** at 1 [#50-2] (noting that three-year Veterinary Clinics of North America nutritional study on effects of early castration and variable dietary protein on juvenile llamas published in 1994 "remains the only extensive nutritional study performed in North America" and referencing but not describing study conducted on alpacas in Peru).) To surmount this informational hurdle, the experts extrapolate from existing data on the effect of a high fat diet on dairy cows and rely on anecdotal evidence. I find neither methodology sufficiently scientifically sound or reliable to merit consideration by a jury.

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<sup>8</sup> Dr. Van Saun theorized that a higher fat diet might make the animals more susceptible to other stressors, but there is no evidence that any such stressors were an influence in this particular case. (**See Depo. of Dr. Van Saun** at 204-205 [#50-3].)

Extrapolation from existing animal studies to other species or to humans is not wholly impermissible. **See *Quinton v. Farmland Industries, Inc.***, 928 F.2d 335, 337 (10<sup>th</sup> Cir. 1991). Nevertheless, there must be some evidence that the proposed extrapolation is warranted scientifically. **See *In re Silicone Gel Breast Implants Products Liability Litigation***, 318 F.Supp.2d 879, 891 (C.D. Cal. 2004) (citing cases); ***Cavallo v. Star Enterprise***, 892 F.Supp. 756, 762-63 (E.D. Va. 1995) (citing cases), ***aff'd in relevant part, rev'd on other grounds***, 100 F.3d 1150 (4<sup>th</sup> Cir. 1996), ***cert. denied***, 118 S.Ct. 684 (1998). Plaintiff has failed to provide such evidence here.

For example, in discussing the lower weaning weights observed in plaintiff's alpacas, Dr. Van Saun stated that

fatty acid derivatives of PUFA [polyunsaturated fatty acids] have been associated with milk fat depression in dairy cattle and insulin insensitivity and diabetes in humans. As the PUFA content of the diet was increased, a greater amount of these trans fatty acids would be generated and influence milk composition of lactating females (lower milk energy content), or insulin-regulated metabolism.

(**Final Rpt. of Dr. Van Saun** at 8 [#50-1].) However, Dr. Van Saun acknowledged that at present “this is all conjecture . . . there’s some strong evidence in the human field of these associations [between a high fat diet and hepatic lipoidosis], but whether or not that holds in the camelids, not real sure . . .” (**Depo. of Dr. Van Saun** at 157 [#50-3].) Moreover, Dr. Van Saun recognizes that his extrapolations from research studies in cattle “might be questioned as to its validity and direct application to camelids, but there is no evidence to the contrary at this point.” (***Id.*** at 22.) In the face of an absence of scientifically valid studies, the lack of contrary evidence can hardly be surprising, and is

a thin reed, indeed, on which to premise an allegedly valid scientific conclusion that might merit consideration by a jury.

Putting aside the fact that this admission rings of *ipse dixit*, Dr. Van Saun's own testimony appears to give considerable reason to suspect that a contrary result might be observed in camelids. In his final report, Dr. Van Saun states specifically that "[c]amelids are unique in their glucose and protein metabolism compared to other ruminants."<sup>9</sup> (*Id.* at 7.) Indeed, in his deposition, Dr. Van Saun noted that "people call [camelids] pseudo-ruminants because they only have three chambers to their stomachs, but they are truly chewers of the cud, so they rely on bacterial fermentation to provide a fair amount of the nutrients that are used by the host animal." (**Depo. of Dr. Van Saun** at 20 [#50-3].) Plaintiff does not bother to explain how these acknowledged differences in bovine and camelid anatomy and biochemistry are negligible or irrelevant to the extent that reliance on data gleaned from one species validly can be extrapolated to the other.<sup>10</sup>

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<sup>9</sup> "Ruminants are animals that have a four-chambered stomachs designed for digesting coarse plant matter. They are also called fore-gut fermentors because one of the chambers, the rumen, is responsible for the fermentation and digestion of forage through the use of microflora in the rumen. Ruminants are also known to regurgitate and chew a bolus of partially digested matter called cud." **What are ruminants?** (available at [http://wiki.answers.com/Q/What\\_are\\_ruminants](http://wiki.answers.com/Q/What_are_ruminants)) (last accessed September 14, 2010). **See also** R. Bowen, **Digestive Anatomy in Ruminants** (noting differences between cattle and camelid digestive anatomy) (available at [http://www.vivo.colostate.edu/hbooks/pathphys/digestion/herbivores/rumen\\_anat.html](http://www.vivo.colostate.edu/hbooks/pathphys/digestion/herbivores/rumen_anat.html)) (last accessed September 14, 2010).

<sup>10</sup> Although plaintiff fails to point it out, the opinion of Dr. Johnson offers a possible response to this question. She noted that because

[g]reater levels [of dietary fat] tend to alter digestive efficiency of fiber fermentation as well as protein synthesis by gastric microbes . . . it is of significance that the gastric transport time of alpacas is longer than true ruminants such that all ingested feedstuffs will be in contact with microbes for theoretically more complete fermentation . . . provid[ing] greater time for microbes to be adversely affected by the high fat/PUFA content.

Indeed, both experts noted the lack of scientific research on the effects of a high fat diet on alpaca health. Dr. Van Saun acknowledged that “we have no real data” to support his dietary fat recommendations (**see Depo. of Dr. Van Saun** at 81 [#50-3]), that there were no studies regarding levels of fat in the camelid diet (*id.* at 27), and, thus, ultimately, because “we just don’t know where that threshold is” (*id.* at 83), “this is all conjecture” (*id.* at 157). Dr. Johnson confirmed likewise that, due to a lack of scientific studies, it was not possible affirmatively to link many of the various conditions noted in plaintiff’s alpaca herd with the level of fat in their diet (**Depo. of Dr. Johnson** at 27-28, 57 [#50-4], filed July 30, 2010),<sup>11</sup> let alone to link the diet to any potential but as yet unidentified long-term effects (**Depo. of Dr. Johnson** at 110-111 [#56-5], filed August 23, 2010). She admitted that it was not known what level of fat in the diet was toxic (**Depo. of Dr. Johnson** at 142, 159 [#50-4]), and that there were no studies suggesting what level of fat was safe (*id.* at 52). Indeed, she characterized her opinions in this regard as “logical speculation.” (*id.* at 78.) (**See also Rev’d Op. of Dr. Johnson** at 6 [#50-3]) (noting no more than a “notable correlation” between the level of fat in the alpacas’ diet and the problems experienced within the herd.)

Both experts appear to attempt to bridge this gap in the scientific knowledge base by reliance on anecdotal evidence regarding the relationship between alpaca

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(**Rev’d Op. of Dr. Johnson** at 5 [#50-2].) Dr. Johnson’s deposition testimony, however, refutes the notion that this theory has been proven by any scientifically valid method. (**See Depo. of Dr. Johnson** at 521-52 [#50-4].) Moreover, Dr. Johnson specifically expressed her opinion that “departing from other species or total extrapolation from other species is wrong.” (*id.* at 81.)

<sup>11</sup> Of particular note, higher fat diets in some ruminants have been linked to improved fertility, among other benefits. (**See Depo. of David Pugh** at 61-62 [#68-5], filed September 7, 2010.)

health and a higher fat diet. The federal courts have consistently excluded expert testimony premised on anecdotal reports where proffered to establish general causation. *See, e.g., Soldo v. Sandoz Pharmaceuticals Corp.*, 244 F.Supp.2d 434, 537-40 (W.D. Pa. 2003) (citing extensively to other cases); *Newton v. Roche Labs., Inc.*, 243 F.Supp.2d 672, 681 n.1 (W.D. Tex. 2002) (same). Because anecdotal reports “do not isolate and exclude potentially alternative causes, . . . do not investigate or explain the mechanism of causation,” and “lack controls,” such evidence is “universally regarded as an insufficient scientific basis for a conclusion regarding causation.” *Newton*, 243 F.Supp.2d at 681 n.11 (citations and internal quotation marks omitted).

Indeed, Dr. Van Saun acknowledged that the feeding guidelines for camelids published by the National Research Council (“NRC”)<sup>12</sup> do not address the level of fat in the diet of such animals because “NRC does not go off unpublished information or anecdotal information. It has to be validated, peer-reviewed . . .” (**Depo. of Dr. Van Saun** at 29 [#50-3].)<sup>13</sup> Moreover, such anecdotal evidence as does exist is hardly conclusive as to what constitutes an appropriate level of fat in an alpaca diet. Dr. Van Saun acknowledged that he was aware of herds fed a higher fat diet that experienced no problems whatsoever. (**Depo. of Dr. Van Saun** at 81-82, 204-205 [#50-3].)

Ultimately, Dr. Van Saun concedes that despite “strong trends,” he ultimately must

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<sup>12</sup> Dr. Van Saun described the NRC as a “scientific body of recognized experts . . . convened under the auspices of the National Academy of Sciences . . . to produce essentially feeding recommendations for the industry for various species.” (**Depo. of Dr. Van Saun** at 27 [#50-3].)

<sup>13</sup> Moreover, the NRC guidelines that do exist note that research in sheep shows that adding fat at a level of no more than five per cent can avoid any negative effects on total tract fiber digestibility. (**Nutrient Requirements of Small Ruminants** at 16 [#56-4], filed August 23, 2010.) This figure is close to the *total* dietary fat Dr. Johnson hypothesized as having been fed to plaintiff’s herd under defendant’s recommendation. (**Rev’d Op. of Dr. Johnson** at 5 [#50-2].)

speculate as to the impact of a higher fat diet on alpacas (*id.* at 205 -206).

Given these considerations, it appears to this court that the standard of care proffered by the experts and their opinions on causation are linked to nothing more than their own personal opinions that adding fat to the alpaca diet is unnecessary and that a diet with more than about four to five per cent fat is unsafe for alpacas. “[N]othing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert. A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.” *General Electric Co. v. Joiner*, 522 U.S. 136, 146, 118 S.Ct. 512, 519, 139 L.Ed.2d 508 (1997).

Accordingly, and even considering that Rule 702 is a rule of inclusion rather than exclusion, I find and conclude that it would be an abuse of my discretion and a dereliction of my gatekeeping function to admit these expert opinions in the trial of this case. Without this testimony, plaintiff cannot establish or prove up the applicable standard of care for professional negligence, to the extent one exists at all. For these reasons, defendant’s motion for summary judgment must be granted and plaintiff’s claim against him dismissed.

#### IV. ORDERS

**THEREFORE, IT IS ORDERED** as follows:

1. That the **Motion of Defendant Evans To Exclude Opinions of Dr. Johnson and Dr. Van Saun** [#50] filed July 30, 2010, is **GRANTED**;
2. That **Defendant Evans’ Motion for Summary Judgment** [# 53] filed August

17, 2010, is **GRANTED**;

3. That **Defendant Evans' Motion To Exclude Portions of Testimony of Dr. Stachowski** [#51] filed July 30, 2010, is **DENIED AS MOOT**;

4. That **Plaintiff's F.R.E. 702 Motion and Request for a Hearing Pursuant to F.R.E. 104** [#52] filed July 30, 2010, is **DENIED AS MOOT**;

5. That plaintiff's claim of professional negligence against defendant is **DISMISSED WITH PREJUDICE**;

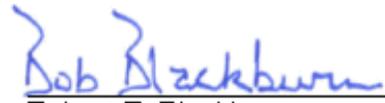
6. That the Trial Preparation Conference, currently scheduled for Friday, September 17, 2010, at 1:30 p.m., as well as the trial, currently scheduled to commence on Monday, October 4, 2010, are **VACATED**;

7. That judgment **SHALL ENTER** on behalf of defendant, Norman Evans, individually, against plaintiff, Toni's Alpacas, Inc., an Ohio corporation, as to all claims for relief and causes of action; and

8. That defendant is **AWARDED** his costs, to be taxed by the Clerk of the Court pursuant to Fed.R.Civ.P. 54(d)(1) and D.C.COLO.LCivR 54.1.

Dated September 16, 2010, at Denver, Colorado.

**BY THE COURT:**

  
Robert E. Blackburn  
United States District Judge