



IMPORTATION:

Lost in Translation

by Dale Peterson

The 109th annual meeting of the United States Animal Health Association (USAHA) was held in Hershey, Pennsylvania, from Nov. 3-9, 2005. Camelid representatives included: Teri Nilson Baird, Karen Conyngham (ILR representative to the USAHA Board of Directors), Susan Tellez, Dr. Cheryl Tillman (AOBA representative to the USAHA Board of Directors) and Marsharee Wilcox.

USAHA has 34 active committees. Camelid representatives are members of the Animal Welfare Committee, Committee on Bluetongue and Bovine Retrovirus, Committee on Parasitic Diseases, Committee on Sheep and Goats, Foreign and Emerging Diseases Committee, Import/Export Committee, Infectious Diseases of Cattle, Bison and Camelids, and the Livestock Identification Committee.

Minutes of the meeting are lengthy. One report, The Infectious Diseases of Cattle, Bison and Camelids, is of particular interest to the camelid community, because it contains a request to **allow importation of frozen embryos of South American Camelids**. This report is printed below in its entirety, followed by commentary. I urge you to read the report carefully, to learn about planned actions that can directly impact you and the camelid industry and to become involved in the issue of importation.

Infectious Diseases of Cattle, Bison and Camelids *(Karen Conyngham reporting)*

Two camelid presentations were given in this committee.

Karen Conyngham made a presentation entitled "Camelid Health Review and Medical Research Update". The review provided an overview of camelid population statistics, description of the many uses for llamas and alpacas, followed by a survey of the differences between camelids and ruminants including taxonomy, evolution, physiology, and disease prevalence and resistance. The impact on the llama and alpaca community due to the closing of the Canadian border to BSE from 2003-2005 was also covered.

The second portion of the presentation provided a review of current camelid medical research being funded or recently completed by the Morris Animal Foundation (MAF) and the Alpaca Research Foundation (ARF).

MAF approved two studies on genetic markers in South American Camelids (SACs) in 2005. Continuing studies include the efficacy of oral omeprazole in third compartment ulcers in SACs and identification of proteins that have the potential to serve

as vaccines for *P. tenuis* which is very important to N. American camelid owners.

ARF-supported research on WNV in camelids continues at Oregon State, and that institution is also investigating the efficacy of a blood substitute product in SACs. An additional study will investigate the prevalence of BVDV in alpacas in N. America and determine if further research into this disease in camelids is warranted.

As of late October 2005, 70 articles on camelid health, nearly all peer-reviewed, have been published in the literature.

A good source for information about camelid health, research and welfare is available at the International Camelid Institute, via their web site: www.icinfo.org.

An industry-wide committee has been working over the past several years to establish "Minimum Standards of Care for Llamas and Alpacas" and "Recommended Practices in Caring for Llamas and Alpacas"; the guidelines are for use by both camelid owners and animal welfare officials. These documents were released in the fall of 2005 and are accessible at www.camelidcare.info. Copies of the two Standards of Care documents were distributed to state veterinarians who

attended USAHA and also to appropriate USDA/APHIS personnel.

Another camelid presentation, on embryo movement, was made by Paul Taylor of Taylor Llamas in Bozeman, MT.

Protocols for Importation of Frozen Hatched Blastocysts of South American Camelids

The international movement of embryos of South American camelids has not been possible because, in these species, the embryos are retained in the oviduct until after hatching and therefore cannot be collected nonsurgically while still in the zona pellucida (ZP). Currently, the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) regulations require the presence of an intact ZP on embryos for importation into the United States (US).

A more significant barrier to international movement of camelid embryos has been the fact that these hatched blastocysts have proved to be nearly impossible to freeze by standard methods that rely on movement of the cryoprotectant down a concentration gradient from outside the trophectoderm layer of the conceptus in to the aqueous blastocoel fluid. It is universally accepted that embryos intended for movement across international borders must be cryopreserved so they can be held for a period of time greater than the incubation period for any diseases of concern to allow post embryo collection testing of the embryo donor animal. Donor animals can then be retested to provide reliable assurance that they were not infected with pathogens of concern at the time of embryo collection.

A new technique involving direct injection of cryoprotectant in to the blastocoel fluid and extraction of almost all of the blastocoel fluid to allow rapid equilibrium of the entire conceptus prior to cryopreservation, as well as the post-thaw injection of culture medium to reinflate the trophectoderm has opened the door to

practical cryopreservation of hatched blastocysts. Now, hatched embryos of South American camelids can be cryopreserved and held until post collection testing can be accomplished.

Risk assessment of the animal health status of the country, region and farm of origin of embryos intended for importation, coupled with the ability to cryopreserve and hold these embryos until after post collection testing has shown to provide a wide margin of statistical certainty that the embryos imported under these strict guidelines are free from disease and safe for importation without a ZP.

Finally, international movement of cryopreserved, hatched blastocysts of the South American camelid will allow increased trade in the genetics of these species with a dramatic reduction in the health risks and animal welfare issues involved in the importation of live animals.

Several Cattle, Bison and Camelids committee members and the Chair asked questions about the ET procedure which were answered by Mr. Taylor. There was interest in the technique but the committee ultimately felt there was not enough information provided to approve the resolution at this time. However this same presentation was made in the Committee on Import/Export (see below) and after discussion and questions in the Import/Export Committee, a slightly modified resolution on embryo movement was passed by that committee. The resolution also was passed at the USAHA general membership meeting.

RESOLUTION

*[from the Import/Export Committee]:
The United States Animal Health Association (USAHA) urges the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) to determine if protocols can be developed for the importation into the United States of cryopreserved, hatched blastocysts of South American camelids.*

Commentary

There are more than a few questions that need to be asked concerning Mr. Taylor's request. I have known Paul and his wife Sally for almost 20 years. We bred our first two females to their legend, the now deceased Fiduciary. We have visited their ranch several times and I remember Paul talking about exploring AI and ET as far back as the late 80s. Since that time he has established himself as one of, if not *THE*, foremost authority of AI and ET in the camelid world. That by any standard is a monumental feat. Few, if any of us, will make such an impact during our lifetimes. Further, he and his wife, Sally, have devoted money and years of their time perfecting the AI/ET process for camelids.

None of this, however, is at the core of the real issue camelid owners must consider:

Importation of More Camelids

To oversimplify, assume the following to be true:

- The AI/ET process can be done effectively in camelids.
- Embryo donors are not harmed during the collection process.
- Embryos can be tested and found free from disease.
- Host camelids are not harmed during the embryo transfer.

The ILR has a process in place to register ET camelids that are already in the United States. *How* will the ILR register camelids that originate in another country and are "transferred" into host camelids and then are born here in the U. S.? Unlike the Certified Llama Registry (CLR), the ILR has no built in safeguards pertaining to this issue. Furthermore, how can anyone be sure that the embryos that are imported are from the animals that they are presented to be from? *They can't*. Importation of embryos is *still* importation, but with *even less controls* than prior importations of live camelids.

Many recall what a fiasco past importations were. As a result, many – maybe thousands – of hybrid camelids are registered with the ILR, with most of these being registered as llamas. Couple this with the “discreet” practice of crossing llamas and alpacas that appears to have been going on for the past 25 years here in the U. S. and Canada and you wind up with an industry filled with hybrids that are called pure breeds.

As a reminder of history, ask yourself these questions:

“How was it possible for traditional style llamas with short fiber to miraculously produce offspring with long fiber in as little as one generation? Could crossing huacaya alpacas (either here or in South America) with llamas have produced this change? Were these hybrids registered as such by ILR, or were they registered as pure bred llamas? Did anyone notice that many ‘llamas’ shrank in size? Did anyone notice a change in ‘llama’ phenotype from level top line, curved ears and high tail set to a sloping top line, straighter ears and lower tail set?”

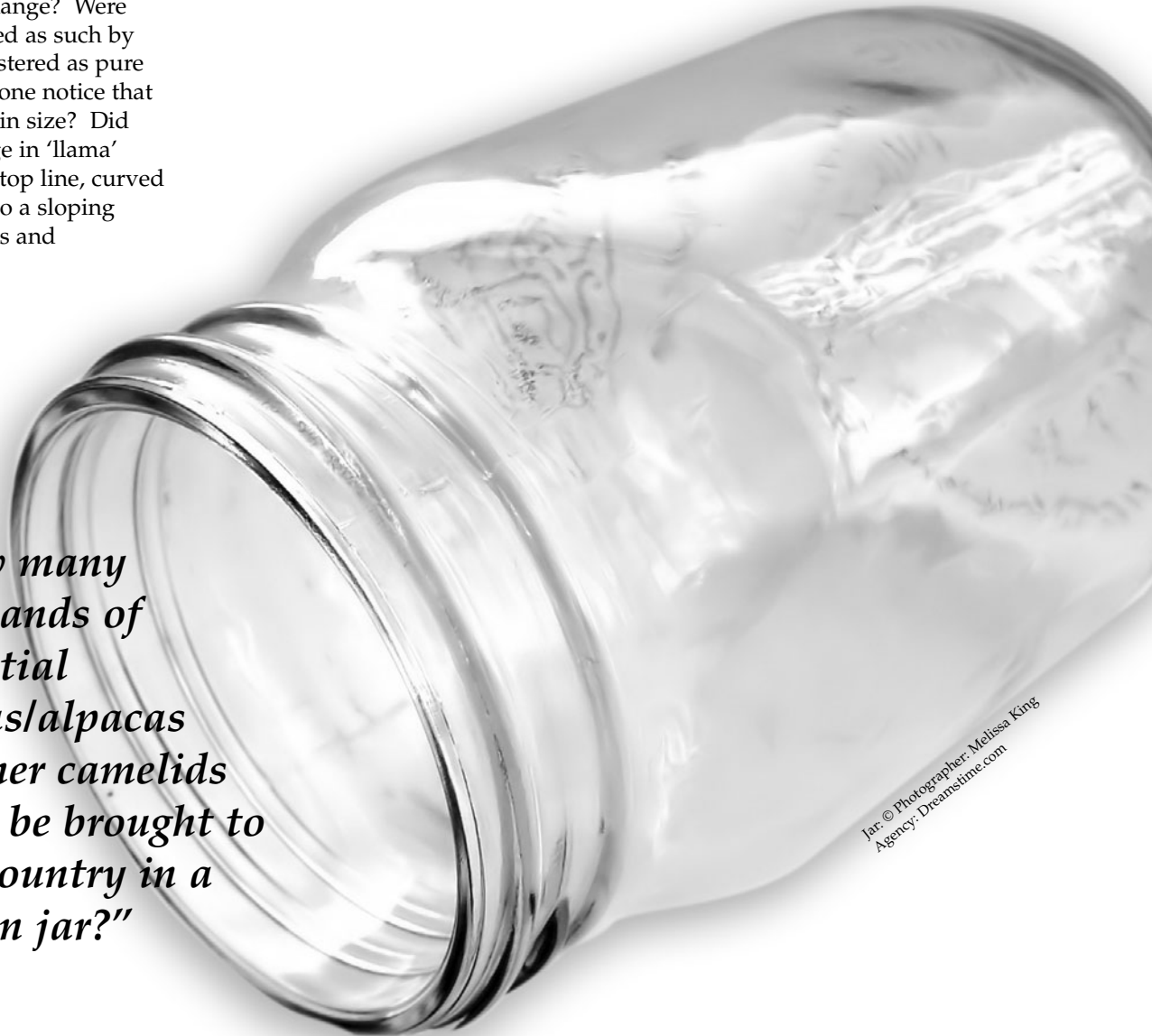
“How was it possible for llamas with traditional fiber to miraculously produce offspring with suri fiber in as little as one generation? Could crossing suri alpacas (either here or in South America) have produced this change? Were these hybrids registered as such by ILR, or were they registered as pure bred llamas? Did anyone notice that many llamas **again** shrank in size? Did anyone notice the change in top lines from level to more like that of a roller coaster?”

Note: A handful of breeders have bred very selectively for specific phenotypic and fiber traits for multiple generations. For them, the results have been animals with llama phenotype and the fiber type they desire.

While it seems many have intentionally created hybrids and called them pure, others have become victims of these scams and now vehemently defend their animals as 100% pure “llama,” because they genuinely believe this to be the case. This is an unfortunate game where the winners are the ones who perpetrated the scams and then profited from them. The bottom line is that many believe the “system” – with help from the ILR - has been and can be manipulated. Those who have done it know well this is the case.

The ILR has a moratorium on imports until 2008. Sally, Paul’s wife and the founder of ILR, sits on the board of the ILR and has for years. Should that be considered a conflict, if and when a decision has to be made whether or not to **again** allow imports

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Jar: © Photographer: Melissa King
Agency: Dreamstime.com

to be registered by the ILR? The Taylors derive their income from the llama industry and would have sole control over the cryopreserved embryos that are imported. Is it possible that Mr. Taylor has some insight that is not privy to others and this allows him to think that the ILR will again open its registry to imported camelids? It almost sounds as if the decision has been made “unofficially” to register offspring that are the result of imported AI and ET. Why else would he be trying so hard to get the USDA to change their current rules?

Do we need or want imports, in any form?

How many thousands of potential llamas/alpacas or other camelids could be brought to this country in a Mason jar? This could have a devastating effect on an already depressed llama market not to mention the potential negative effect it could have on the entire North American camelid industry. Some may argue we need new genetics. Why and for what end purpose? Suri fibered llamas may be one answer; alpacas could be another; vicunas could be yet another.

Based upon the maneuvering I’ve seen, the rapid “creation” of suri fibered llamas (or hybrids called llamas) has not been a difficult task. So, if we want more genetics of that type, why not continue to create them here in the U. S., but with strict controls?

Alpaca embryo importation would have minimal, if any, effect on the alpaca market because their registry (ARI) is closed to imports and has been for years, with no plans to reopen. Remember too the alpaca industry had ILR administer their registry until the decision was made to no longer tolerate the ILR's incompetence. The

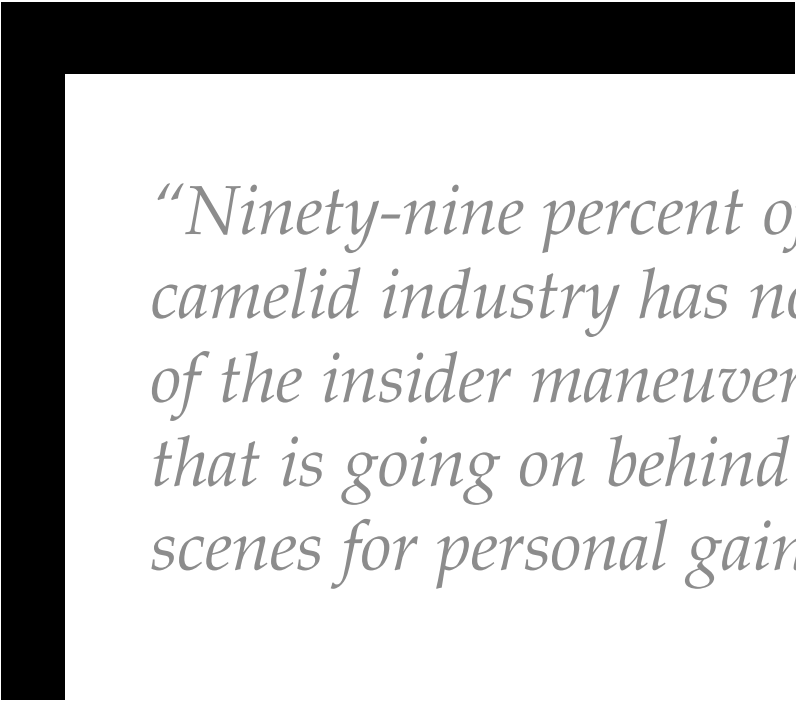
alpaca industry pulled away and started their own registry (ARI), similar to what they did by starting their own show association to replace ALSA, thereby keeping all alpaca functions under one roof and protecting the market value of alpacas. Given this strong marketing program which has been put into place by the alpaca industry, it is unlikely that there would be a market for alpacas registered by the ILR, should they decide to register imported alpaca embryos.

As for vicunas, it is unconscionable that anyone would seek approval to import embryos of this protected species. Doing so could run a high risk of economic damage to the South American people who have worked so hard to preserve the vicuna species, not to mention the potential harm to the vicunas themselves.

way to prove that the information on animals currently registered with them is accurate.

You too may have questions and concerns that need to be addressed before it is too late. Ninety-nine percent of the camelid industry has no idea of the insider maneuvering that is going on behind the scenes for personal gain. I also can assure you that the USDA has no idea what the camelid community really thinks about importation. **They need to find out.**

Go to www.CoolCamelids.org and answer the survey questions concerning importation.



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So, with the ILR's proven track record of failure, especially in controlling imports, they may again expect us to sit idly while they take care of their friends and continue to muck up the industry. Just think for a moment. Being registered with the ILR creates no value for your animals. Furthermore, it has a negative effect because the ILR has no