Winter 2024

The Journal of RMLA

Welcome to RMLA!

– – – Mission Statement – – –

The mission of the Association shall be to educate the members and the public as to the breeding, raising, care and use of llamas and alpacas.

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The Journal of RMLA© is a quarterly publication of the Rocky Mountain Llama and Alpaca Association (RMLA). The RMLA Journal Committee and the Board of Directors reserve the right to select and edit all articles and advertisements submitted.

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Table of Contents

Advertisers in this Issue

Cover Photo: Chino Valley library event featuring llama Rhianna and alpaca Fancy.

From The Editor

Kathy Stanko, Editor, rmlaeditor@gmail.com

Happy New Year!

The llama show at the National Western Stock Show is coming up soon and, as always, there will be great opportunities for fun and comradery with fellow llama owners. But, the show as we know it today was not always this grand. For a history of how llama owners got their animals in from the cold, please read the article on page 7 by Lougene Baird.

Show Superintendent, Judy Glaser, writes *Wow, Lougene, it's hard to believe the conditions back then. What a huge thank you we owe to our predecessors. One reason I try to make myself so visible in the livestock office just before and during the show is to see the Managers and CEO face to face. Passion breeds the go-to mentality and showing that to others and our youth will keep it going.*

Yes, we owe a debt of gratitude to our members, past and present, for keeping the llama show at the National Western Stock Show alive and well.

Once again a move to ban llamas from public lands has risen its familiar head. This seems to be an on-going and continuous issue for at least 20 years. Ron Baird, Research Chair, has written a letter to the editor (see 23) explaining the history and just what is going on. His letter is followed by two additional articles containing scientific information that can be used to thwart the proposed bans. You may want to keep this information for the future.

Thank you to everyone who submitted an article for this Journal and to all of you who read and learn from the many topics included. Please remember, if you have a great photo, send it to me for possible use in a future Journal. Have a fun and enjoyable winter. Find some time to go outside and just play!

Journal Submission Dates, Ad Rates & Specifications

Issue	Submission Deadline	Publication Date
Spring	February 28	March 31
Summer	May 31	June 30
Fall	August 31	September 30
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President's Message

Wow! That was a fast year! Where did 2024 go? I hope it was a great year for all.

2025 is going to be an exciting time for RMLA. First, I want to congratulate the new RMLA Board Members: Courtney Chalmers, Judy Glaser, Julie Hall and Jessie Kaehn. In January, the existing Board Members will meet with our four new volunteers for a transition meeting. At this meeting, Lougene, Nancy and I will share what we have learned as Board Members and a ton of historical information. One promise the current Board has already made to the new Board is that we will not abandon you. The current Board will always be available for input, advice and guidance.
I have had multiple people reach out about what they can do to help RMLA besides the Board positions. We have many different committees that could use leadership or members. As I have said before, none of these opportunities take a ton of time. Give what you can. For example, do you use Facebook? You could easily help. Are you comfortable with technology? We can use that skill too. Know about hiking or fiber? Help RMLA fulfill our mission and educate others. All of this is helpful.

In closing, I would like everyone to know how much I appreciate all of the support and guidance I have received over my term as President of RMLA - particularly from Lougene Baird and Nancy Wilson. But this organization could not run without all of the dedicated volunteers that have kept RMLA humming along like a well-oiled machine. Kathy Stanko, Marilyn Arnold, Ron Baird, Mary Wickman, Sandy Lockwood, Karen Miller - you are all such a blessing to RMLA. Thank you all!

Happy New Year! I wish everyone a spectacular 2025!

New Members

RMLA continues to grow. We welcome our new members!

Jessie Kaehn, Elizabeth CO
David Rowan and Jennifer Starr, Brighton CO
Courtney Chalmers, Anthem AZ
Anne Harriette Bugel, Bosque NM

Upcoming Events

National Western Stock Show, National Western Stock Show Complex, Denver, CO. Arrival Thursday, January 23rd 9AM to Noon. Walking fiber and Shorn fleece, Friday, January 24th beginning at 9 AM. Llama Halter and Showmanship, Friday, January 24th at 2 pm. Llama Performance Show, Saturday January 25th at 1 PM. Contact Judy Glaser, judy.glaser@yahoo.com for more information.

SAVE THE DATES:
July 12-13, 2025, The Rocky Mountain Pasture Show, 2Bit2 Ranch in Florissant, CO A double ALSA show. Rustic camping: no hook ups, no internet, but a porta potty. Unplug for the weekend and enjoy the beautiful scenery, cooler temps, and all your llama friends! For more information, contact Jennifer Starr, rowan.starr@gmail.com.

RMLA HISTORY

From The Beginning: The National Western Stock Show Llama Show

By Lougene Baird

From the 2015 National Western Stock Show. Youth are the foundation and future of the show.

Reviewing the earliest documents that reside in stored RMLA files, I discovered a tattered, expandable folder with all sorts of communications and notes concerning the first days of the NWSS Llama Show. Stories have been told through the years about llamas first being exhibited at the Stock Show. No inside stalls were made available: llamas were stalled in pens outside alongside the railroad tracks in freezing (or below freezing!!) January weather. Grooming took place outside and the animals were only allowed inside during the llama show.

Correspondence tells that Stock Show officials did not allow RMLA to sponsor or manage the 1988 llama show as RMLA had previously. The RMLA Directors that year submitted a list of seven qualified individuals from which the Stock Show officials could select three judges. Two judges from the list were selected and the third judge selected by the Stock Show was an animal science professor -- who ended up judging the halter classes. The highly qualified and experienced llama judges were only used to judge the pack trail and driving classes.

At that time, the show association (ALSA) was also new and getting its feet on the ground. It was striving to develop ethical standards and show classes for the display of llamas to the public.

Several exhibitor letters dated in 1988 complained that the Stock Show management had seen fit to de-emphasize the llama displays and exhibitions. The llama events were held before the Stock Show's actual published time. Another writer challenged Stock Show management for combining long and short wooled weanling halter classes, stating that was an inconsistency neither owners or the public could comprehend.

Following the 1988 show, letters began to reflect the llama show beginning to improve for all. Llamas were brought inside out of the below freezing cold and the timing of llama show events in the arena began to be held when most of the public was present.

Grace Shaddeau was named llama superintendent and held that position for many years. The NWSS management had started to see the llama show as a forum for the promotion of llamas to large numbers of people. It also realized llamas were, in actuality, a huge public draw to the entire livestock show -- as they are today. After Shaddeau's retirement, other talented RMLA members have held the superintendent position.

However, there was an unspoken *livestock* stigma concerning llamas. Even in the late 90's, RMLA Board members went to the inside area to check out the condition of the stalls as llamas were to arrive the next morning. The livestock exhibitors who had left that day had not cleaned the stalls. About 12 RMLA volunteers worked until 3:00 in the morning to shovel, sweep and sanitize each stall. The next morning, llamas arrived to nice clean stalls. At departure, the stalls were left spotless by llama exhibitors for the next livestock arrival.

Youth Champion and Reserve Champion at the 2023 show.

Today, we are thankful that RMLA member Judy Glaser continues as an outstanding superintendent for the NWSS Llama Show. Judy is one who sees the beauty, usability and importance of llamas and alpacas and the importance of our youth who participate in the show.

RMLA will again this year support the National Western Stock Show Llama Show with a continued endowment and our members will continue to volunteer and be a part of the event for today and into the future.

Editor' Note: *Reprinted from the Winter 2022 Journal of RMLA.*

BEHAVIOR

Ear Fear

By Cathy Spalding,

Editor's Note: *from the LANA Newsletter; reprinted with author's permission.*

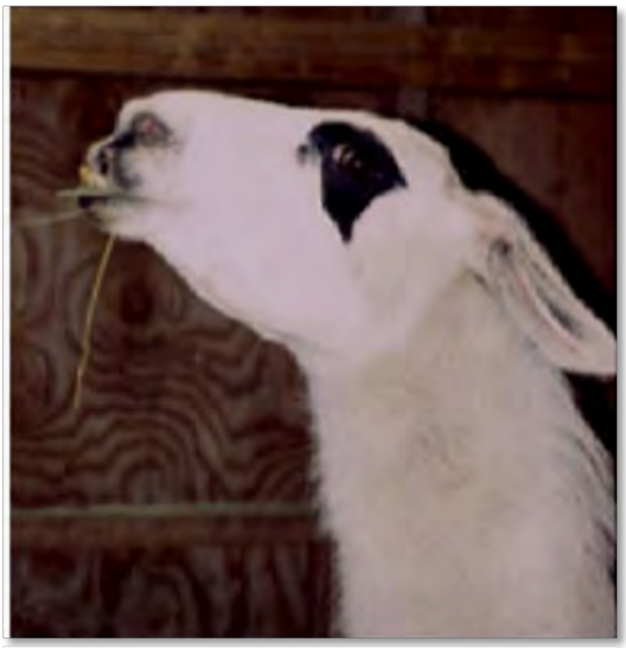
Spit happens! To spit would seem one of the higher levels of aggression exhibited in the normal behavioral range of alpacas and llamas. It is not something to be given—nor received—lightly. It is serious business. When the ears of an alpaca or llama are actually pinned, it is clear they have a strong opinion on something. You can almost count on spit to follow if the offender does not immediately comply.

This llama is exhibiting typical bad mouthing behavior.

The alpaca or llama who would spit does not seem to enjoy the doing any more than those who would be receiving. Even alpacas or llamas not directly involved in the exchange will avoid anything with spit on it. Some will even hang their own lower lip. After a good spit, an alpaca or llama will open their mouth fairly wide to *air out*. This stance is commonly called *bad mouthing*. Their mouth will look a mess with particles of stomach contents dripping here and there as they hang their lower lip. The ears are usually at half-mast, the eyes appear somewhat depressed and the nostrils may flare. In this disgusting state, they are often left quite to themselves by the rest of the herd.

Pinned ears are not the same as ears that are back. Ears that are pinned will be held tightly back and downward nearly in line with a strongly held vertical neck. For the ears to be truly pinned there must be an upward tilting of the head. This facilitates the ability of the ears to lie as flat as possible against the neck as well as straightens the esophagus for a possible rise of stomach contents. Alpacas and llamas can certainly spit without tilting their head upward. Normally, the only contents of this spit would be anything that was present in the mouth at the time such as grass, grain, saliva or cud. Spit in the form of fresh stomach contents must be brought up from the stomach. By tilting the head upward, dramatic curves are eliminated along the path from the stomach to the mouth allowing a clear volley from the stomach up the esophagus and out through the mouth.

Merry is quite serious in her statement to another llama (see page 9). So serious in fact that she would appear just moments from backing it up with a hearty spit of fresh stomach contents. She shows great emotion through clear and bright eyes making direct eye contact with the object of her displeasure. Her eyes seem to warn that she is not happy—quite angry in fact—about whatever is going on and her feelings best be taken seriously. Notice the combination of indicators which all come together for this expression of anger or upset. The head is tilted upward, the nose is in the air.



This female, Merry, is quite serious in her statement to another llama. Her ears are pinned.

Her ears are pinned—laid back almost flat along her neck. Her neck has stiffened and is held nearly vertically straight. She appears squarely balanced over herself. Her eyes are bright and clear, making direct contact with the offender in the delivery of her message. Her nostrils are flared and her lower lip is tensed and pulled under. Some of these behavioral cues could indicate something quite different were they not in concert with the others. Many humans feel concern that an alpaca or llama may spit when the ears fall back or are snapped back in combination with a seeming unhappy facial expression. Though a situation where the ears are snapped back could certainly progress to the point of pinning and spitting, it is interesting to note that alpacas and llamas can only spit saliva, cud or whatever happens to be in the mouth in that stance. Stomach contents can be brought up for cud chewing in this position, but it does not have a clear volley from the stomach out of the mouth without a much more extreme tilt of the head. Taking another look at this female, notice the position of her head as it connects with her neck. She has made a rather straight path for the clear flight of stomach contents.

Frankie's response to Merry's angry stance is interesting. Frankie's eye shows he is well aware of the aggression but he is not responding with direct eye contact. He has formed a stress wrinkle under his eye. He is clearly looking at her, has definitely understood the seriousness of the situation, but he maintains a more softened, non-direct connection with Merry. He has readied himself for defense should the need arise but it is interesting to note his manner. He has laid his ears back, flared his nostrils, his mouth is open with some tension in his lips and he has tilted his head upward. All are expressed, however, with less intensity and directness than his aggressor. His neck appears more supple and less vertical. His body is a bit off balance and somewhat turned away. He is looking at her but not in a front on, direct way. And, his ears are not truly pinned. Will this situation escalate or will it diffuse? It would seem to depend on the choices Frankie will make. I wonder… could it be that Frankie's behavior represents our cue over the years for that "don't look them in the eye" belief?

This photo shows Frankie, the recipient of Merry's aggression. Frankie's ears are not pinned.

FIBER

Want To Learn About Alpaca Fiber?

By Nancy Wilson, Chair, Fiber committee

Hey fiber aficionados! Have you been looking for an all-in-one reference for alpaca fiber? Are you new to spinning alpaca fiber and want to learn more about it? Are you interested in the technical aspects of alpaca fiber? Are your customers asking you about alpaca fiber? If so, then you should check out the fall issue of *Ply Magazine*. The entire issue is about alpaca fiber. Yup, you read that right: all alpaca fiber. From the husbandry, basics of the fiber, technical aspects of the fiber, and projects using the fiber it's all in this issue. Even if you don't have alpacas, this is an issue well worth checking out. Your local yarn store may carry it, or you can get it from the publisher.

RMLA EVENT

Fall Break in Arizona is the Perfect Time to Learn About Lamas

By Sandy Schilling, RMLA Board President

The Rocky Mountain Llama and Alpaca Association (RMLA) was invited back to present the differences between llamas and alpacas during our local school district's fall break in October. The town of Chino Valley's public library puts together amazing programs designed for kids, but they are also offered to the general public.

This year around 160 adults and children attended the appearance held at Memorial Park just outside of the town's library on a warm fall day. I took my llama Rhianna and alpaca Fancy to the park to use as models for the audience. I talked for over 90 minutes, not only about the differences between llamas and alpacas, but also about the care and maintenance of the animals.

Sandy Schilling and Linda Hayes

Attendees were able to ask additional questions, pet, groom and feed the lamas. A table was set up where everyone was able to feel fleece from both llamas and alpacas, check out lama poop and learn about its use as fertilizer, as well as watch a local spinner, Sandra Sendtko, turn her wool into yarn. During the presentation, I was surprised with a guest appearance by my dear friend and mentor, Llama Linda Hayes! Linda took pictures and answered questions from members of the crowd.

An article about RMLA's visit to the library was published in the October 16th Chino Valley Review.

Many thanks to Rebecca Laurence, Youth Librarian with the Chino Valley Library, for inviting RMLA back to educate another huge audience. I would also like to thank JROTC volunteer, JJ Tracy, and beekeeper friends, Susie Robertson and Peggy Searcy, for help with the set up and tear down of the pen, as well as crowd and animal control. And a special thank you to Sandra Sendtko for bringing her spinning wheel and educating the audience about how she makes yarn. I would not have been able to attend this event without all of you.

A final and heart felt Thank You and Shout Out to RMLA for providing the liability insurance that is required for an event like this. Without RMLA's support, this event would not have been possible.

Sandy Schilling leads a discussion about llamas and alpacas at the Chino Valley Library in Prescott, Arizona.

HEALTH/MEDICAL

Ask the Vet: Dermatological Conditions in Camelids

By Kathy Whitman, DVM, MS, DABVP
Veterinary Extension Specialist, Colorado State University Veterinary Teaching Hospital

Question: I've experienced fiber loss on a few of my alpacas, and this is concerning, considering I use the fiber in my business. What could be causing this patchy hair loss?

Fiber production is important to many alpaca operations, and anytime there are skin lesions on any of our camelids, the overall health of the animal is a major concern. In addition to economic impacts, the comfort and well-being of the animals, underlying animal health, and even human health can be impacted.

When there are skin issues identified in our herds, where do we start? Identifying the cause of the lesions should involve a veterinarian, but having an idea of potential causes can give you a head start. The basis for any lesion is a breakdown in the natural barriers of the skin. This can be caused by bacterial, fungal, or viral infection, ectoparasites, nutritional imbalances, allergies and immunological dysfunction, and even neoplasia (cancer). In some instances, there can be multiple issues going on at the same time, which can complicate treatment.

In addition to hair loss, other common abnormalities can include crusts, scaling, and itchiness. The location of these lesions can vary, and documenting the starting point and how the lesions have spread can be important information for your veterinarian. When consulting with your veterinarian, other factors to consider are age, time of year, other species present on the farm, any dietary concerns, and past history of skin conditions. While some details may seem very unimportant, providing all possible information may make a big difference in diagnostic approach and treatment options.

Prevention-first line of defense

For many dermatological conditions, ensuring that the health of the herd and environment in which they live are both at an acceptable level can prevent many causes of dermatological abnormalities. For example, zinc deficiency specifically causes idiopathic hyperkeratosis, and this can be caused by too much calcium, often found in higher amounts in alfalfa hay. Not having proper, balanced nutrition can also lead to susceptibility to other skin-related diseases. Moist, dark environments can lead to poor skin health, and makes a great habitat for ectoparasites, bacterial, and fungal infections.

If your camelids have access to grazing on your property, monitoring pasture health is key to avoiding toxic plant intact. Ingestion of toxic plants can lead to liver toxicity, and in turn cause photosensitivity, which can be confused with sunburn. In these cases, consultation with your veterinarian may be needed to sort out UV exposure versus plant toxicity.

The new arrival of animals warrants appropriate quarantine, typically 3-4 weeks. This allows for evidence of disease to show up in our new camelid(s) prior to exposing them to the herd. Even if the animal is not a camelid, diseases such as soremouth (virus) or Chorioptes (mites) can spread from other species to camelids and cause skin disease. Assume that new animals may carry something on to your property, so give yourself time to discover the problems and treat prior to introduction. More information on parasites can be found in the Summer 2024 RMLA Journal.

If you do notice skin abnormalities, isolating the affected animal(s) and thoroughly cleaning the environment is a good step to help prevent spread. Inspecting your property for potential issues that could cause trauma (sharp objects) or house infectious material (old barn wood) should be done on a frequent basis.

Diagnosis

Even when all preventative measures and biosecurity are in place, skin abnormalities can and do still occur. Some causes of dermatological conditions in camelids are more obvious than others, and many look very similar. In the case of itchy animals that are losing hair, you may be able to see lice in affected regions. Or, patches of circular, crusty

lesions in younger animals may cause you to think of a fungal problem like ringworm. However, many times, the answer is not obvious, and so contacting your veterinarian for more involved diagnostics is beneficial. When there is no visible evidence of parasites, or treatments you've tried were unrewarding, your veterinarian can do skin scrapes, sometimes deep scrapes, to find mites, as well as cellular evidence of infection or inflammation. Be prepared, however, that finding mites can be difficult even with extensive diagnostics. Also, presence of clinical signs does not correspond to level of infection-some heavily infested camelids have no lesions, and act as on-going carriers of mange. Skin biopsies can be helpful in difficult cases to find deeper lesions or changes in the skin structure. Remember that skin scrapes and biopsies may need to be repeated, especially if you've treated prior to sampling.

Other diagnostics that can be performed include blood work to rule out other disease or may indicate underlying inflammation related to allergens. Mineral panels can be assessed if there is concern about nutrition. Finally, response to therapy may be an option, under guidance of your veterinarian, for difficult cases.

Treatment

The possible treatments for skin conditions in new world camelids is as long as the list of diseases itself. Guidance from a veterinarian should be employed if the diagnosis is not obvious. Shearing away affected fiber around the lesions and bathing with anti-fungal/anti-bacterial shampoos are a good start, and certainly can alleviate discomfort and start the healing process. Many medications labeled for cattle are not labeled for camelids, so consulting your veterinarian prior to use ensures that what you're using is safe and effective. Reviewed treatments for specific diagnoses are explained in further detail in the resources section of this article.

Human health concerns

Most causes of skin conditions in new world camelids are not contagious to humans, but some do exist. Conditions such as soremouth, Sarcoptic mange, and ringworm can all affect humans. Lice are species specific, but irritation to human skin can occur in severe infestations. It is important for people caring for any camelid, but especially sick camelids, to wear appropriate protection to prevent zoonotic spread, as well as appropriate disinfection of clothing and shoes to prevent spread to other stock. Additionally, the same protection should be used when applying treatments.

Summary

The full range of dermatological abnormalities in camelids is extensive and cannot be fully covered in one newsletter article. However, in this case where fiber loss is occurring, it is good to have some ideas of what potential causes may be and understanding that diagnosis and treatment can be challenging. The more that can be done to prevent these diseases is key, and veterinary consultation is critical for resolution in most cases. Remember that if your herd is experiencing frustrating skin conditions, you are not alone.

Resources

Taylor, SD. Hyperkeratotic Skin Conditions in New World Camelids. https://www.alpacaelama.it/informazioni-generali/aspetti-veterinari/97-hyperkeratotic-skin-conditions-in-new-world-camelids.html. Accessed Nov 21, 2024.

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BEHAVIOR

Consider Llama Bonds When Adopting

Updated November 2024

By Lynda K. Liptak
Director, Southwest Llama Rescue

Usually, llamas are born into a relationship-filled herd. They start with being welcomed by all the other llamas at birth when bonds are formed. Ideally, the crias have other crias to play with and learn about interactions and appropriate behaviors in their family dynamics. Having other adult llamas beyond the mother is very helpful in their development. Whether the bonds are maintained or broken is usually dependent upon their human caretakers.

Understanding there are competing wants and needs, it is my wish that we consider the needs of the llama and try to accommodate their social bonds that are part of their health system. Although we can't maintain all the bonds we would like to, and some bonds are naturally cut in the course of their lives, we can take their relationships into consideration when they are sent to new homes. Llamas are happy in a herd, and you can see the friendships that happen within the herd.

One of our rescues was of a herd of 25 llamas in Alamosa exactly two years ago. We naturally separated the males from the females and their crias to prevent breeding. One of these crias was a male less than a month old when we rescued him and his dam. He stayed with his dam and the other females for a year and then weaned. Once weaned, he was moved to the male herd that was out of sight and a few blocks away from his nursery. There were only two males left from his herd, since most of them had been adopted by then. Once we brought him to the males, he ran to one and snuggled the elder male that looked just like him and stuck by his side for weeks. It was amazing to me that after a year, he remembered this elder male and followed him everywhere for guidance and protection. He also likes the company of the other male from his herd but mostly sticks with the old one who seems to be a relative. If either is requested for adoption, I will ensure that they go as a pair.

Bonded pair of geldings on the left from 11 Mile Canyon Rescue meeting a group of newly arrived 8 bonded geldings rescued from Jefferson, Colorado.

Guard llamas are often requested as a single llama. They can bond with other species. Yes, this is true, but they can guard very well in pairs – one llama scouting and protecting the perimeter and the other llama staying with their charges. I believe this is a better solution. They speak the same language, work better together, and have a better chance at protection and surviving an attempted attack. I remind those requesting a guard llama that llamas are only a part of a multi-layered defense. A team is the best approach for their stress level management. This year we rescued a single female who had been alone for years on her property. The property sold and the new owner kindly understood that the llama needed companionship. We brought her to our sanctuary where she met eight other females and we noticed a difference in her right away. She became more relaxed, more trusting, and learned from the

other llamas how to be managed. She found friends and now has two females she prefers to be near.

I find that as I get to know the llamas that come through Southwest Llama Rescue (SWLR), I see the benefit of keeping llama families intact. This is often a challenge if the llama family is large. In fact, the most requested adoption is for one or two llamas. Very rarely more than two, and when we get requests for two guards, it is likely because our policy is that they are adopted in pairs.

The other reason for a one llama request; the companion to an existing llama lost their llama friend - and the kind owner understands that they need company. When the size of property is limiting, or the resources for raising and feeding llamas is scarce, a two-llama herd is certainly a benefit to the llamas needing a home and very much appreciated. But if there is the ability to consider more than one bond, then my preference for llama adoptions is really a minimum of three, with four being better.

Two bonded females recently rescued from Salida, Colorado the same age and possibly related.

I recently had the great luck to be contacted by a family interested in two llamas for adoption. After conducting the site visit and meeting with them, I was very happy they were interested in having llamas as they were perfect candidates with ideal facilities and pasture. They also had the desire to learn about llamas, including proper care, and handling. But, I had a conundrum. Having a family of four that needed a home, I assessed two candidate llamas in that family were possible for them; I knew I would have to break some strong bonds (in my assessment). This is an agony that I wrestle with nearly every time there is a request for adoption. Wanting two llamas to start out with should be easier, common sense tells us. I conceded that a separation was necessary in order to place these llamas and tried to console my guilt with the fact that, hey, they are after all surrendered and there is no guarantee that we can keep them together.

So, the family came over to see the llamas and watch their interaction. The family planned to use them for guards for their goat herd. I was not certain the llamas would be good guards but thought we should try it out as part of their security system. We had two females who were a little skittish but one started to allow me to feed her up close. The other two llamas in their group were a mother and a nursing cria. The exact relationship or lineage is not known as is the case for 95% or more of the surrenders that we take in. Perhaps they are all related or perhaps not. In any case, they were close to each other. They had come from a large herd of about 26 llamas in Jefferson Colorado and they were the only females. They were wise to predators having been roaming on hundreds of acres all their lives and they were survivors. What they needed was good care and handling to build trust in humans.

I let my wish be known that I would prefer the family stay together and that in my opinion, they would be more effective and safer being together. In fact, I find that they move together so well that it is very easy to manage the herd of four as they follow each other and learn from each other very well. When working on trust with the most comfortable one in the bunch, the others are watching and learning.

And, in the CAMELIDynamics fashion (read *The Camelid Companion* by Marty McGee Bennett, a wonderful resource), *packing* the catch pen with multiple llamas while handling and training, is an excellent technique. They feel safer in a bunch and I can spread out my enthusiasm across all four. A half hour spent on four llamas will be enough for them while a half hour on one llama or two llamas may be way too much for recent rescues and cause too much stress.

During the visit by the adopting family, I introduced them to all the llamas and explained the relationships they had and how the llama groups interact. It was clear to them the four had a strong bond. And, to my joy and relief, they agreed

to adopt the herd of four. I don't think they ever got the goats – the llamas got to be the center of attention.

Recently, another adoption went similarly, with the requesters intent of getting a pair to guard a few sheep. I had a group of four females that recently completed weaning their male crias and they were a bonded group from a different rescue in Jefferson, CO. Now they have more llamas than sheep and are over the moon with their llama friends enjoying their companionship and marveling at their relationships.

So, if you are interested in obtaining a nice group of llamas, please contact us at Southwest Llama Rescue and know that we will work to make the lives of the llamas as familial as we can, honoring their bonds and matching them to the right people.

About the author: Lynda K. Liptak has been rescuing and training llamas since 2009. She is now a Director for Southwest Llama Rescue. In 2023 -2024, over 10,000 hours were donated by volunteers to accomplish rescue and care, feeding, medical care, and transportation (over 10,000 miles) of over 100 llamas/alpacas. Lynda is currently caring for 20 llamas. Area of rescue included most states in the western US. You may contact Lynda at www.llamasdelsol.com or 505-453-1740.

Bonded 3 year old geldings trained by volunteers of Southwest Llama Rescue and adopted in Delores Colorado for packing.

Sustenance

By Nelson Leonard

Editor's Note: *from the LANA Newsletter; reprinted with author's permission.*

This topic is so basic and so important it almost falls in the same category as medical advice, a topic which I would prefer to leave to veterinarians. I did say almost, so here goes.

Food

With few exceptions the nutritional requirements of sound llamas can be met by hay or pasture, fresh water, and salt/mineral supplement mix; no pelletized food supplements or grain are necessary. Llamas make efficient use of their food so selecting a second cutting grass hay, feeding 1.0 to 2.0% of adult body weight per day is sufficient. Overfeeding—free choice of grass hay, feeding alfalfa hay or alfalfa/grass mix, feeding pelletized food or grain regularly—is not uncommon.

Obesity in llamas can lead to health problems, and trying to take weight off one llama and not others can be a management nightmare, so it is best not to go there. Feed a measured amount of hay each day and learn to ignore llama attempts at guilt trips. Lacking irrigated pasture, we feed grass hay throughout the year. Our llama paddocks support seasonal grasses, which provide llama amusement and not a lot of calories.

Not having much of a life outside llamas, for several years I've calculated the number of llama pounds we care for and divided by the amount of hay we feed. Somewhere in there is the number of days in a year. Anyway, the bottom line, our daily average feeding ranges between 1.4 -1.6 percent of body weight. Most recently I calculated the feed for our female pasture (eighteen llamas between age one to twenty-two years, all open with no nursing babies) and feeding 1.5% of body weight daily. About half maintained normal body weight and the other half gained weight to the point that I will need to cut back feed.

When we estimate our annual hay needs, we calculate one ton for each adult llama. This has provided sufficient feed for adults with enough left over for babies and weanlings.

Species composition, quality, and availability of grass hay varies tremendously from one region to another. Finding and securing good quality hay is a major focus of llama ownership. The most economical and best quality hay is second or third cutting grass hay. Our llamas prefer a high percentage of broad leaf grass species.

Llamas will eat the first cutting of grass hay, however, there will be a fair amount of waste, as the first cutting has a high percentage of coarse stems and seed heads. Though some llama owners feed alfalfa hay or alfalfa and grass mix, most owners feel it is too rich and should be avoided. Ask your veterinarian about the relative merits of one hay over another and if there are any nutritional or trace element deficiencies in local hay and what measures you must take to remedy the problem.

Selecting good quality hay has health (other than nutrition) and pasture management ramifications. Hay can contain noxious plants (such as star thistle) that may injure your llamas or the seeds of such plants. Seeds from hay can find their way into the field and reproduce plants that pose mechanical (fox tail, star thistle) and toxic hazards, or produce plants that may deteriorate the quality of forage and ground cover such as dog fennel or buttercup. All hay contains some trash or foreign plant material. Careful selection of hay and good field management will keep this problem to a minimum.

When pelletized feed supplements for llamas were introduced in the mid to late 1980's, most people recognized that the llamas didn't need the extra calories. We used these feeds, as this was the best solution, to supply daily requirements of trace elements and minerals. When a salt based formulation of trace elects and minerals was developed for our area, we withdrew feed supplements except for specific working or health related situations. Working llamas (pack llamas burn a lot of calories), nursing mothers (prone to losing weight) and some elderly llamas may require pelletized feed or grain supplementation. For the most part we have relegated feed supplements to training rewards.

Water

Llamas acquire water from moisture contained in pasture, browse and water. It is important they have access to an adequate supply of fresh water daily. The test for fresh water is simple; ask yourself Would I drink this? If the answer is no, then it isn't fresh. Better yet, replace water daily.

Mineral and Trace Elements

Salt or salt/mineral supplement mix should be offered free choice. The llamas will self-regulate their intake. There is a salt-based mineral supplement (Llama Premix) tailored to our mineral and trace element needs in the West available through Redmond Veterinary Clinic, Redmond, Oregon. Ask other llama owners and your vet about the need for and existence of a similar product for your area.

HEALTH/NUTRITION

Do Your Llamas Eat Tree Leaves?

By Rebecca Kern-Lunbery, MS, MBA, PAS Animal Scientist

Camelids are intermediate feeders, sometimes consuming leaves both off the trees and those that fall during autumn months. Moreover, with the regenerative agriculture movement, there has been a resurgence of silvopastures, or the practice of integration of trees on grazing pasture lands. Producers looking to replicate nature have led to interest in incorporating more plant species diversity on the landscape including trees. With that, livestock consumption of leaves is on the rise. Llamas and alpacas specifically consume more tree leaves unintentionally due to their browsing behavior along with grazing. Leaves can provide a good source of protein, energy and micronutrients, but there are precautions that llama and alpaca owners should be aware of.

Tree fodder

In scouring the internet, you will find an abundance of pictures of llamas and alpacas eating leaves. However, there is certainly a deficit of research on the nutritional value and impacts leaves can have on camelid health and overall nutrition. Fortunately, with the resurgence of silvopastures, regenerative agricultural practices, and research into alternative forage sources when grasslands and other forage sources are scare due to increased droughts, there has also been an increased interest in studying leaves as a source of nutrition for grazing livestock. Most of these studies and resources refer to the leaf materials as tree fodder. Tree fodder differs from typical forages and browses in two specific ways. First, forage is specifically cultivated and sometimes harvested for animal consumption. Second, browse is opportunistically consumed by intermediate and browsing animals including sheep, goats, llamas, and alpacas and typically consists of woody shrubs. Tree fodder is leaf materials that offer both nutritional value but comes from trees which were not specifically or opportunistically utilized by grazing or browsing livestock.

Nutritional value

The nutritional value of leaves has not been as widely studied as typical feeds and forages like legume and grass. But there are some resources that have recently become available. The first, is a study from the United States Department of Agriculture's (USDA) Sustainable Agriculture Research and Education (SARE) : Quantifying Nutritional Value and Best Practices for Woody Fodder Management in Ruminant Grazing Systems. This project pulled leaves from six different species of trees every two to three weeks and analyzed protein, fibers, and micronutrients over time. Their study concluded that unlike common forage species, timing of consumption wasn't important because the nutrients did not significantly change over time.

Protein

Table 1 summarizes the results from the SARE study highlighting that leaf fodder from four of the six species was a better source of protein than average grass pasture and was comparable to legume pastures with the other two species still being comparable to grass pastures. Furthermore, when we look at camelid's protein requirement ranging from 8-16% depending on the physiological state, if leaf fodder were a main feed in the diet, very little protein supplementation would be needed.

Energy

Fiber content was very similar to legume pasture and much lower than average grass pasture. Energy values were not calculated. Furthermore, the equation for calculation is likely a place where more research would be needed to establish a reliable equation based on fibers. However, since the fiber content is similar to legume species, we can speculate that leaf fodder would be likely to exceed energy requirements for camelids at maintenance and meet requirements for more energy demanding states such as gestation, lactation and growth. However, this study mentioned the variability of all nutrients many times. So, observing animals' body condition would be crucial. With llamas and alpacas specifically, we need to get our hands under their wool and feel their body to ensure they aren't losing condition or gaining too much either!

Micronutrients

Turning our attention to the micronutrients supplied by leaf fodder, this study showed that leaves are an excellent source of minerals! All minerals analyzed were found in greater concentrations on average than common forage average except for phosphorous. However, this does not mean that feeding leaf fodder precludes the need for mineral supplementation. Unfortunately, there is a lack of information related to llama and alpaca mineral requirements and maximum tolerable levels in the diet. But we can extrapolate with copper for example, domestic ruminant species require a minimum of 10 ppm copper in their diet, yet sheep are highly sensitive and should not be fed a diet with more than 15 ppm copper. So, pseudo-ruminants like llamas and alpacas, should be kept on a diet with a minimum of 10 ppm copper. So, although leaf fodder has more copper than most forages, it still requires supplementation to meet requirements and ensure healthy llamas and alpacas.

Table 1. Adapted from SARE Project: Quantifying Nutritional Value and Best Practices for Woody Fodder Management in Ruminant Grazing Systems. Average Nutritional Values across two years for six species of tree fodder and legume and grass pasture averages. Tree fodder values greater than average legume is highlighted in green and those greater than average grass are highlighted in yellow.

Species	Crude Protein (%)	ADF (%)	NDF (%)	Calcium (%)	Phosphorous (%)	Magnesium (%)	Potassium (%)	Iron (ppm)	Zinc (ppm)	Copper (ppm)	Manganese (ppm)
Black Locust	23.96	20	31.7	2.05	0.24	0.17	1.54	81	31	8	82
Buckthorn	20.58	19	34.5	2.68	0.23	0.29	2.59	134	19	7	81
Honeysuckle	14.07	23	36.8	2.27	0.2	0.32	1.78	141	20	7	66
Poplar	30.89	26	35.9	1.73	0.2	0.22	1.39	63	117	7	88
Wild Cherry	14.39	23	44	1.97	0.2	0.27	1.22	91	20	7	179
Willow	16.39	27	38.1	1.9	0.22	0.32	1.28	87	254	7	178
Legume Pasture	26.23	28	36	1.21	0.38	0.26	1.79	206	50	6	18
Grass Pasture	15.79	37	60.9	0.5	0.31	0.14	0.93	0	0	5	8

Potentially beneficial properties and anti-nutritional properties

In addition to the SARE project examining six leaf fodder species, there was a review of literature examining the potential for mulberry leaves to be used as an alternative forage and to perhaps improve production in ruminant species. Like the variability of the leaf species in the SARE project, protein in the mulberry leaves ranged from 14-34%, ADF ranged from 10-32% and NDF ranged from 19-49%. Along with the high protein, energy and micronutrient content of leaves, mulberry leaves specifically have flavonoids with the potential to act as antioxidants. There is potential that inclusion of mulberry leaves in milk cow diets can reduce oxidative stress in the rumen and increase digestibility and increase milk production.

However, mulberry leaves also contain several anti-nutritional factors that are not necessarily toxic but can have negative effects on animal health and production. Oxalates have been shown to reduce feed intake and also calcium bioavailability. Tannins can bind to protein and reduce degradability. This can be negative when feeding a diet specifically tailored to exactly meet protein requirements. But, in the case of grazing legumes, tannins are very useful in preventing bloat. Furthermore, some leaves can contain iminosugar alkaloids which inhibit glucosidase enzymes. Glucosidase enzymes are responsible for breaking down carbohydrates and providing the animals with energy.

Precautions

Oak Toxicosis

It is key if allowing llamas and alpacas to consume leaf materials, whether as a purposeful addition to the diet or just because they have access, to be aware of what species of tree leaves they have access to. Oak tree leaves and acorns can result in illness and death if consumed by llamas and alpacas. According to Merck Veterinary Manual, "The toxic principle, which appears to be pyrogallol, gallotannins, polyhydroxyphenolic compounds, or their metabolites produced by microbial hydrolysis in the rumen; binds and precipitates proteins by astringent action, which results in GI, hepatic, and renal dysfunction."

Symptoms typically do not start for three to seven days after consumption. Symptoms include depressed, lethargic animals exhibiting gastroenteritis, going off feed, sudden anorexia. Ultimately, renal failure and death may occur. Call your vet immediately if you suspect oak toxicosis. Initial therapy should focus on rehydration and restoring electrolyte imbalances.

Cyanide Poisoning

Cyanide poisoning is also referred to as prussic acid poisoning. This occurs when animals graze plants containing cyanogenic glucosidase. These enzymes hydrolyze a compound called dhurrin into cyanide (HCN). Under normal conditions, plant membranes separate dhurrin from the cyanogenic glucosidase. Monogastric animals and hindgut fermenters such as swine and horses typically do not have an issue with prussic acid poisoning because stomach acid deactivates the enzyme.

However, ruminants and pseudo-ruminants are more susceptible to prussic acid poisoning due to the chewing of their cud. As those animals ruminate, the cell membranes are damaged. This allows the enzyme access to dhurrin, thereby releasing HCN into the rumen. The HCN is then absorbed directly into the bloodstream where it binds with hemoglobin. The bound hemoglobin cannot transfer oxygen to individual cells and death by asphyxiation is the result.

Again, this is only present in specific plant species. Most commonly this is a livestock health risk for grazing sorghum, sudan, Johnson grasses and hybrids. However, there are several trees that have dhurrin and cyanogenic glucosidase in their leaves. Do not allow llamas and alpacas to consume leaves from apricot, peach, chokecherry, pin cherry, wild black cherry, nectarine, almond or bird cherry trees.

Conclusion

In conclusion, if you see your llamas or alpacas opportunistically browsing on tree leaves, it's not cause for concern, they are just getting some extra protein, energy and minerals in their diet. However, it is key to be cautious about the species of trees they have access to. Oak toxicosis and cyanide poisoning are very real risks and can result in death. If you plan to jump on the bandwagon and embrace silvopasture grazing, or specifically harvest leaves to feed as an alternative to forage, lab analysis would be recommended due to the highly variable nature of the leafy material.

About the author: Rebecca Kern-Lunbery earned her M.S. in Animal Nutrition from the University of Wyoming with a collaborative project with the US Meat Animal Research Center. She is an active member of the American Registry of Professional Animal Scientists. With a passion for producer education, she is a regular contributor to Progressive Forage Magazine. Currently, she serves as the Immediate Past President of the NIRS Forage and Feed Testing Consortium (NIRSC).

RMLA EVENT

Llamas and Lattes!

By Julie Hall, Thunder J Ranch

An event was hosted by Thunder J Ranch and Spirit of 1876 (outdoor sports and adventure store), at the Spirit of 1876 store in Castle Rock, CO. The store owner, Mike Gentile, contacted our ranch about the event, and we were excited to participate. We brought three llamas and one alpaca to the store. We set up our trailer in front of the store, attaching some panels to the end of the trailer, so that the animals could go in and out as they wanted.

The store had done quite a bit of advertising for the event, we advertised on Facebook and RMLA sent out email blasts for the event. The RMLA also provided insurance for the event, and we are very grateful, since that allowed us to easily participate. As we set up, families and children were already gathering around us, asking questions and admiring the animals.

We brought Dot, Izzy, and Buttercup, three of our llamas, and Anna, one of our alpacas. The question we get most often when we do events is *What is the difference between a llama and an alpaca?* It's fun if we can actually bring both types of camelids and show people the difference, in addition to talking about those differences.

We talked about using fiber from both llamas and alpacas, hiking and packing with llamas, and using llamas as therapy animals. Dot and Izzy are accomplished llama ambassadors; they have visited an assisted living facility, and were featured on television to promote FallamaFest Llama Show and Event, here in Colorado. Dot is known for her ability to

sense those that need her presence for comfort, and she loves children.

We talked about training llamas, showing them how we train the llamas to 'step up', one of the first skills we teach our youngsters.

The llamas did great, and even Anna, our alpaca, allowed some of the visitors to touch her fiber and get an understanding of the different fiber types.

We stayed at the event for a few hours, and really enjoyed meeting all the people that attended the event. We hope to be able to do it again next year!

Letter to the Editor

By Ron Baird, Research Chair

The Same Old Story – Once Again from a Different Angle

It is a truism that if history is not studied and understood, it is doomed to repeat itself. This especially is a fact of life with lamas or so it seems.

The Western Association of Fish and Wildlife Agencies (WAFWA) represents 23 states and Canadian provinces, an area covering nearly 3.7 million square miles. It is proposing that llamas (WAFWA must not know alpacas are in the same family because they are not mentioned in its proposal) be tested for diseases before being allowed to enter wild sheep areas. Wild sheep are big horn sheep and related species.

The two articles following this letter are an article from the Pack Llamas Trail Association and an accompanying letter from Dr. Christopher Cebra, Chair of the Clinical Sciences Department at Oregon State University. Dr. Cebra is a leading expert in the field of lama health and medicine. Both articles debunk the fallacious assumptions upon which WAFWA's Wild Sheep Initiative & Wildlife Health Committee base its reasoning for testing.

A little history will serve to point out WHY you, as a lama owner, should be aware of this initiative and other actions that raise their ugly heads from time to time (at least yearly!).

Llamas evolved in North America, living here until perhaps 10,000 years ago when they along with megafauna were wiped out (according to archeologists by humans), meaning they lived alongside wild sheep and other fauna.

In the mid-1990s, a veterinarian conference was held at Colorado State University. A question asked at that conference was something like *Can llamas get Johnes Disease?* The answer was *yes*. The yes may have been based on a USDA experiment in South America during which millions of units of Johnes Disease were injected into a llama's eye and the animal had a reaction to it and exhibited titers to the disease.

The superintendent of Canyonlands National Park in Utah took this incomplete answer and used it to prohibit llamas from being used in the national parks under his control. This disinformation and his action spread as if a wildfire. Arizona parks began banning llamas, fairs began banning llamas, cities began prohibiting them in parades, and on it went.

Only when people like Stan Ebel, Scott Woodruff, Bob Riley, Lougene Baird and other RMLA members took legal action, was the Canyonlands matter resolved in favor of llamas.

However, the disinformation, fueled in many cases by commercial packing interests, raises its ugly head from time to time and needs once again to be chopped off. I encourage all to read the following articles to become more informed, and then use this knowledge to advocate not just for your own lamas and herds but for the good of the industry.

Memo from: The Ad Hoc Committee for Llama Access to Public Lands

The latest WAFWA brief dated 07/03/24, advocating testing llamas for conditional access to wild sheep ranges, is based on two assumptions: 1) There is not adequate data regarding diseases carried by llamas. 2) There is not enough history regarding disease transference between llamas and other species known to carry diseases that affect wild sheep.
Dr. Chris Cebra, DVM, noted camelid/llama veterinary researcher at Oregon State University, has written the attached letter that responds to the brief and exposes the error of these base assumptions. It calls into serious question the recommendation of the brief to require testing for llamas entering wild sheep habitat.
Please read the letter in its entirety but take particular note of the following points:

- -Llamas are not new to North America, in fact it's their point of origin, specifically western NA.
- -Llamas have been comingled with sheep, domestic and wild, for eons with only sporadic and terminal disease crossover, typically involving llamas being atypically infected by the sheep.
- -Llamas have been under direct human control and observation for thousands of years and no endemic diseases have been identified.
- -Llamas are noted to have a robust immune system and the emphasis in llama disease research is focused on researching and trying to develop a means of replicating this immunity in other species. This emphasis and effort validates the first three points. Researchers and scientists have observed the historic lack of endemic disease and the lack of disease transference in llamas and are putting a lot of effort and money into understanding and replicating the phenomenon. The promise of using their unique immunity to cure/prevent disease in other species and humans has created a lot of excitement. It completely undermines WAFWA's position that llamas require testing because they are new to veterinary observation and research and are without documented history,
- -He addresses the error of WAFWA equating disease titers with indication of infection. It is simply an indication of their predictable and dependable immune response. It also points out the constant presence of ruminant pathogens.
- -He points out the arbitrary reality of zero tolerance/precautionary principle applied to llamas and not to other species.
- -He characterizes the "absence of evidence is not evidence of absence" statement as unrealistic and paralyzing in the real world.

The ad hoc committee for Llama Access to Public Lands will follow with their response to the brief as well. There are additional substantive issues that require WAFWA's response.
The ad hoc committee for Llama Access to Public Lands
Stan Ebel, Scott Woodruff, Phil Nuechterlein

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September 11, 2024

To the WAFWA Wild Sheep Initiative & Wildlife Heath Committee,
I am writing this letter as a veterinarian and scientist who has worked with camelids, among other species, for over 30 years. I have never owned a camelid nor participated in any activity involving wild sheep, except for treating a small handful of Bighorns in my clinic over the years. As a large animal internist, biomedical researcher and university professor, I have worked with camelids in both clinical and scholarly capacities. I am the primary editor and author of a leading textbook about them and hold an endowed professorship of camelid medicine at my university. I host an international conference of camelid veterinarians every two years, and am involved in several strong networks of information exchange about camelids. I have no financial interest in camelids, but feel I am knowledgeable about them, and constantly wonder at their unique features. Some of those are of great interest in the research community: camelids' high altitude and dry climate adaptations, diabetes-like metabolism and unique heavy-chain antibodies may all offer pathways to improve the lives of humans and animals in a variety of domains.

I have read the most recent Brief on South American Camelid Disease Risk to Wild Sheep prepared by the WAFWA Wild Sheep Initiative & Wildlife Heath Committee. The recommendations in this document are that camelids who enter wild sheep territory should be kept isolated from animals known to carry pathogens transmissible to sheep, that they should not enter thin horn sheep range and that a comprehensive microbiologic catalog for camelids should be created. The catalog should enable "reasonable and science-based decisions" about access of camelids to wild sheep territory.

Science is essentially using observations to explain things. It has the inherent weakness that observations always represent a subset of all possibilities, such that exceptions and remote occurrences can rarely be excluded. We hear more and more today, that "more science is needed," but that call often reflects an appetite that cannot be sated. It has often been stated that the absence of evidence is not the same as evidence of absence; this is being used as an anti-science weapon, not a serious tool. Science rarely proves facts; it uses facts to make predictions. Currently, we have the following facts: there is no evidence that camelids carry *Mycoplasma ovipneumoniae*, and years of interactions between camelids and wild sheep have led to no evidence of disease transference. Science would tell you that those facts predict that a future transmission event would be unlikely. Demanding 100% confidence would require a draconian, zero-tolerance policy such as the

one suggested in the thin horn sheep areas, and in all fairness, if imposed, should also extend to every other species of mammal, including man. Not applying the ban broadly makes it arbitrary, and defies the definition of a reasonable decision.

Camelids are natives to the North American west and most likely were only completely exterminated with the arrival of man. They doubtless cohabited with ancient breeds of sheep for millions of years. This is borne out in the fossil records. They continue to cohabit with domestic sheep throughout the Americas, mainly in combined flocks in South America and as camelid guards for sheep flocks in North America. In spite of this, there is extremely little information about pathogen transmission between the two families of animal. Where it exists, it is overwhelmingly evidence of domestic ruminants (cattle, sheep, goats), passing disease to camelids. There is copious evidence of seroconversion of camelids exposed to domestic ruminants, meaning that the camelids have been exposed to the ruminant pathogens and have had an immune response. There is far less information that those transmissions cause serious or long-term disease in the camelids.

Using this paucity or lack of evidence as a tool to highlight uncertainty is a weak parlor trick: "there's no evidence that it does, but we don't know that it doesn't." There is undisputedly less information about infectious diseases in camelids than there is in domestic ruminants. This relates to a number of factors, most importantly the lack of major disease outbreaks in camelids. Why study something that you can't find and doesn't seem important? There have not been comprehensive studies to identify the flora of the camelid respiratory tract because decades of routine diagnostic postmortems and body fluid samples of camelids around the world have failed to yield evidence of consistent important pathogens. The few pathogens that have been identified invariably come from ruminants, and camelids clear them or succumb to them quickly. Resident pathogens and carrier states of most studied viruses and bacteria in camelids have barely been identified, and many of the early suspects have been disproved by decades of clinical experiences.

Rather than playing the uncertainty game, which suggest no willingness to find a broadly accepted solution, WAFWA should consider working with health experts. Let's use science as a tool and not a weapon, and work together to find a path forward.

Respectfully,

Christopher Cebra VMD, MA, MS, DACVIM (Large Animal)
The Pfefferkorn and Wendorf Professor of Camelid Medicine
Chair, Department of Clinical Sciences

Reflections from Ten Years of Camel Ownership

By David Armer

Editor's Note: *from the LANA Newsletter; reprinted with author's permission.*

Gobi and David. Photo by K. Russell

In all the animal kingdom, the camel is truly one of a kind. It supplies people with all of the basics for human life. It is a beast of burden, companion, fiber producer, leather producer, and a source of protein, as it provides both milk and meat. There are three species of camels: the Dromedary, the Bactrian and the Wild camel.

A popular misconception is that the Bactrian camel was domesticated from the Wild camel or that the Wild camel is feral from the Bactrian; however, this is not true. Genetic DNA testing of the wild camel (*Genetic Status of Wild Camels 'Camelus ferus' in Mongolia*) by scientists at the University of Veterinary Medicine Vienna, show the Wild camel has two to three genetic differences and a 3% base difference.

The Wild camel is unique for a number of different reasons, including being the only mammal that can consume and survive from salt water. The Bactrian cannot. Just like South American camelids, all three species of camels can interbreed and produce viable offspring. While often considered and classified as an exotic animal in the United States, the camel is one of the world's oldest domesticated animals. For most of us in the United States, camels are a working animal and pet.

I've owned llamas since 1996, but I've always had a fascination for camels. My journey into camel ownership began in 2014 with the purchase of Gobi, a wide-eyed three-month-old Bactrian camel. If you've never seen a camel calf in person, just know they are so ugly they are cute – especially during the summer when they've shed their coat. At six months of age, Gobi was weaned and arrived home. He was halter broken using the bicycle inner tube method. After a very *spitty* temper tantrum one afternoon, he could be led willingly in about two sessions, was halter broken and going everywhere via trailer. From a young age, I lifted all of his feet so he would be easily handleable into adulthood. Like llamas and alpacas, camels do require toenail trimming. Gobi was also doing obstacles, just like the performance llamas I was showing at the time. Having lived in four states, Gobi has literally gone everywhere - hikes around Lake Tahoe, walking on the beach and exploring the Cascades. One of the biggest thrills of having a camel is rein riding. While they don't have the smoothest gait, it is a lot of fun riding them when the proper ground training is taken.

One of the best parts of keeping a Bactrian camel is the fiber! As a hand spinner and knitter, this was one of my biggest draws for selecting a Bactrian. Being a native to Mongolia and living in one of the harshest cold deserts in the world, they produce an incredible fiber that averages around 14-18 microns. The down from the Bactrian is a luxury fiber, and once separated from the more coarse guard hair, is a delight to spin. The Bactrian, along with Cashmere (goat), is one of only two domestic/livestock fibers in the world that naturally sheds from the animal. Using a fluffer comb, the down easily separates from the guard hair during shedding. A slicker brush can also be used to help comb out the fiber during this time. They do not have to be shorn. They will produce about four to five pounds of usable down. Camel top can be found from most fiber suppliers. If you harvest your own, hand processing can be done, but due to the guard hair being present, it's much easier to send it to a mill. Camels are also not the cleanest beasts. Some way of tumbling the fiber is essential for removal of debris. I most often spin camel using long draw. Due to its incredible warmth, I often spin a sport or DK weight. Camel fiber makes a great blend with other wools and fiber. One of the softest yarns I ever spun was a camel angora rabbit blend; however, due to its staple length, be prepared to spin it fast.

CAMEL FIBER
Spun/Photographed by the Author

Left: Raw Camel

Top to Bottom:
Handspun Camel/Silk Blend Yarn
Camel/Silk Blend Roving
100% Handspun Camel Yarn
Sample Knitted Swatch of Handspun Camel Yarn

A few notes and observations from the author:

- Do your homework, attend a clinic and find a trainer. Camels are extremely intelligent. Several great hands-on camel clinics are now offered in the United States, along with several camel trainers available for one-on-one or group work with your camel. I halter broke Gobi myself; however, having mobile trainer Terri Bowen Lindley for a three-day crash course in camel training, behavior and soft-touch reinforcement/techniques was one of the best investments for my camel and myself.
- Make sure your camel is trained to kush (sit) and is used to wearing hobbles. This is important, helpful and safer if the camel needs veterinary care, especially anesthesia. It was easier and safer for anesthesia to be administered to Gobi while kushed at OSU Veterinary Teaching Hospital, than waiting for him to drop. Camels can and will injure themselves getting up/down during and after sedation, especially their necks.
- Make sure your veterinarian is willing to perform medical work on a camel. Gobi was the first and only camel castration for the veterinarian I was using at the time until he retired. He was willing to research, consult and perform the procedure and jump in with both feet. Since camels are considered exotics, some veterinarians will not perform veterinary care for them.
- Read *Camel Crazy* by Christina Adams for a comprehensive look at camels all across the world, their impact in the communities where they live and the ongoing research and studies of camel milk for the treatment of autism, immune dysfunction, diabetes, etc. Even if you have no intention of having a camel in your life, I still highly recommend you read this book! Besides an in-depth look at camel culture across the world, you will be inspired by one mother's ambition to obtain camel milk for her autistic son.
- Routine Fecal Testing! Parasites are one of the biggest battles when owning camels and a major killer of camels in the United States. Depending on your environment and the season, routine fecal testing helps manage these numbers accordingly and keeps your camel healthy.
- No Bottle Babies! Raising a young camel on the bottle doesn't make it any gentler or handleable than a mother raised one. Just like young llamas and alpacas, a bottle raised camel can develop obnoxious, dangerous and even deadly behaviors. You'll spend more time teaching corrective behaviors than training new ones.
- You own a camel. No matter where you go, you will always turn heads and attract the public… even for a walk at 6 a.m. when you think no one will be around. Be prepared to always talk camel and educate the public. This is especially important from a safety standpoint. Keep this in mind also while transporting, especially open

Gobi at four months old.

windows in a trailer. The general public will do anything to get a photo, even while operating a vehicle.

- Hardware - I use a combo rope halter/lead from Rae's Rope Halters that has special knot placements made specifically for camels. The leads are also braided into the halter. Especially when halter breaking and beginning training, camels can and will break the snaps on most lead ropes.

- Camels are powerful. Know your animal, its behavior and set boundaries for personal space. Gobi is not hand fed or given treats specifically for this reason.

- The life span of a domestic Bactrian is 40 years, some can live to be 50. Literally, a lifelong commitment for some of us. This is also important when preparing wills, trusts and end-of-life decisions. Not everyone is prepared for or wants to take on a 1300-2200 pound animal.

- Camels shed their entire coat - literally all of their hair! You and others might think they have mange. It'll grow back!

Last but not least, Gobi was a 28th birthday present from my mother. Talk about one cool mom! The journey with camels and camelids overall wouldn't be what it is today without her support.

Gobi photo by D. Armer

Llamas as Emotional Support Animals at Portland International Airport

By Ron Baird, Research Chair

Title gotcha? Yes, it is true.

Owners who have been in the industry for a while know their llamas are pretty savvy and tolerant of many unusual things and scenes. If you are a member of ALSA, the national show association, you are well aware of the performance class called public relations and the many obstacles your llamas must face to successfully negotiate that course – people, other animals, strange obstacles and so forth. The strangest obstacle I ever encountered was a full size taxidermized black bear sitting in the back of a van, through which I was supposed to lead a llama – she said no, don't be dumb and take me near a bear!

Using llamas as emotional support animals (ESAs) may, in fact, be a method to expand the industry, which has contracted significantly in the past twenty years. The United States Department of Agriculture, in its 2022 Census of Agriculture (conducted only every five years) reported only 29,700 llamas in the U.S. compared to 145,000 in 2002.

There are several very salient reasons behind this decline:

- The hype of the 1980s and 1990s wore out – the Peruvians were imported (they're the best, you gotta have them) then the Chileans (they're the best), then the Argentines (No, they're the best).
- The financial crisis of the 2007-2008 period.
- Finally – and perhaps the most important – the rise of social media. Young people today are more interested in their phones and tablets than engaging in outside activities.

A llama and alpaca owner near Portland, Oregon, Lori Gregory of Mountain Peaks Therapy Llamas and Alpacas, began in 2007 using selected herd animals in traditional therapy activities such as visiting nursing homes, hospitals, schools, and the like. She found people were struck by how friendly, manageable, and cuddly her llamas were.

Soon, requests came from more venues wanting Lori to bring her animals for events – the Chamber of Commerce, the Convention Center for convention-goers, hotels for grand openings, special visitors, and the like. The uniqueness of having lamas taking part in large scale activities involving humans caught on throughout the area.

Portland International Airport had a history of inviting owners of ESA animals to bring their animals into the airport to help calm nervous passengers. Dogs and other therapy animals had been used from time to time at the airport in this regard. Then a few years ago, the Port of Portland, which runs the airport, called Lori asking her to bring llamas to an employee celebration marking the opening of its new Concourse E. The llamas were a smashing success and immediately were the stars of every internal airport event.

It was not too much later that the idea of having llamas present using their ability to calm and pacify harried or nervous or upset passengers. The benefits were immediately apparent to airport management. From occasional calls to bring their llamas (and now a well-suited alpaca) to the airport, a regular schedule is maintained. Lamas walk the

concourses, main portions of the terminal, and even on the tarmac near parked jet aircraft.

Travelers' reactions to seeing lamas anywhere in the airport – concourses, baggage pickup, main entrance – are awesome. Many want to have their photos taken with the lamas, some laugh, some cry with relief at being able to touch and hug the lamas. Therapy at work. Also, some of the reactions are likely due to reality: most people never have been close to these wonderful mystical creatures, have misconceptions about them (like: they spit don't they?), think they only exist in South America or as stuffed toys or on greeting cards.

Ms. Gregory says she has received requests from airports as far away as Houston regarding using lamas to ease travelers' worries and concerns in the normally hectic airport environs. So regular is the schedule of lama visits to Portland International that, in fact, Frommer's Travel Guide publishes how to travel through Portland so as to be there when the lamas are! Another indicator of how successful AND attention-getting this use of lamas is ascertainable from Google. As of this writing, more than 50 pages of Google are devoted to the lamas at Portland International Airport! That coverage is more than some politicians get!

So, spend some time this cold winter, warm in front of the fireplace, and think about how you, as owners, might turn a similar activity into an income source based upon your lamas. It's worth your time and might turn into a thriving business as Mountain Peaks Therapy Llamas and Alpacas already knows.

RMLA EVENT

2024 FallamaFest Show and Event

By Julie Hall

The FallamaFest Llama Show and Event for 2024 is over, and what a great show it was! For our second year, we again had more than 60 animals and over 20 exhibitors participated.

We couldn't have done it without all the great volunteers! Thank you to our superintendent, Jessie Kaehn! A special thank you to Heather and Steve Rohlwing, Sonja Boeff, Michele Chang for the awesome obstacle courses, and for our first time clerk, Timi, who jumped in to help when Steve Rohlwing wasn't able to be there. Thank you also to Ali Bandell, Heather Marley, Kandi Gunning and the other participants that jumped in to help with gatekeeping, and other needs during the show. We had many volunteers who showed up to help that aren't in the llama community, but their love of these wonderful animals brought them out to help. A very special thank you to the RMLA for their youth sponsorship, for providing insurance and for helping us promote the event. Thank you to the judges, Niki Kuklenski and Steve Auld. They were patient and helpful, and we loved having them here!

Taking a llama through the Halloween-themed obstacle course.

A special thank you to all the sponsors we had this year! Putting on a show on our own takes a lot of financial support. We had corporate sponsors and farm sponsors, and each one is sincerely appreciated!

We had great weather again this year! We started off on Friday with a clinic by Niki Kuklenski that covered llamas for therapy, performance classes, and fiber. Dr. Signe Balch also hosted a question-and-answer session for participants. We once again hosted a pizza party on Friday for all participants.

The show this year was dual sanctioned for both ILR and ALSA, and even though we didn't have any out-of-state exhibitors this year, the Colorado llama community showed up and participated! We only had one alpaca that participated this year, but we hope to have more next year.

Sanctioned classes this year included Performance, Double Halter, Showmanship, Fleece, Best in Show Female and Best in Show Male. Youth classes included Showmanship and Performance. We also offered an Open Llama and Alpaca Freestyle Obstacle course, for those who just wanted to practice obstacles, or anyone new to obstacles, and Argentine Top Male and Female classes. We also offered a couple of classes for those exhibitors with special needs to complete the Freestyle Obstacle course, and one exhibitor took advantage of that opportunity. Our obstacle course theme this year was Halloween, and the course looked amazing! Some of the llamas were not too sure about the decorations, so it definitely added to the challenge of the course.

Every year we try to do something different for prizes in order to make the show more memorable. We had beaded ribbons for class placements, and this year, we tapped our resource that helps us with our shirt orders to come up with unique Grand and Reserve prizes. Leslie Ford at Teal Cat Creative helped us to come up with the photo frames, and then made them for us, along with the Best in Show bandannas, and other bandannas. We know that many participants like prizes that they can use, so the photo frames seemed to fit the bill.

A sampling of some of the unique prizes for 2024

For our youth, we introduced the FallamaFest Quest class on Saturday and Sunday. The Quest is like a scavenger hunt, but you have to complete it with your llama. We gave the youth six tasks to complete each day, and we had stations marked in different areas of the arena, barn, and outside areas. They had to find each station, complete the task at that station, and get a pic or video as proof of completing the task. Each task had a different amount of points assigned, and some tasks allowed for partial points. For example, at one of the stations, you had to get your llama to stand in a dry kiddie pool. Points were based on how many feet were in the pool, including the handler's feet. Another task was to get a selfie with the show superintendent. We had easy tasks and hard tasks, so that everyone could be successful at some level. It was great fun!

We introduced another new fun class on Saturday – Dancing with the FallamaStars, a fun, musical, freeze game, that had both participants and the audience smiling and laughing!

Participants of all ages playing the 'Dancing with the FallamaStars' game

This year, on Friday, September 27th, we were contacted by 9News in Denver to feature us in their Good News segment at the end of Next with Kyle Clark. We were happy to agree! We spent some time with them on Friday afternoon, recording the interviews that they would air later that evening. Several participants and some of the volunteers jumped in for the interviews.

During the entire show, we had plenty of visitors who stopped by to see the llamas, ask questions, and take lots of pictures. We also had quite a few people who came by on Saturday to participate in our Fall in Love with a Llama public event. Many people who showed up were asking to see the llamas that they had seen on TV. We love sharing these animals with the public.

We had a great show, and everyone had fun! We are already planning for next year's show to be held on September 26-28, 2025. We are always looking for new and fun ideas. Join us. More information can be found on the website at www.fallamafest.com.

RMLA EVENT

Christmas Parade in Beautiful Prescott Arizona

The 42nd Annual Prescott Christmas Parade honored our first responders, healthcare workers and military with the Heroes of the Holidays theme. RMLA showed off four llamas (Rihanna, Jadis, Rebekka and Juniper) and two alpacas (Fancy and Valentina) from Sandy Schilling's Windy Hill Ranch in Chino Valley. RMLA member Karen Freund helped Sandy stay organized, wrangle animals and dressed the animals in their holiday garb.

Sandy's family, as always, helped out with everything from the very beginning to the end of the day - including pooper scooping and keeping Sandy sane! Sandy's mom, Linda, led the parade with the RMLA banner attached to her scooter. Sandy had a new helper this year as well. James (JJ) Tracy Jr, a junior ROTC member, has been volunteering on Sandy's farm and walked the parade leading Rihanna.

The lamas did a great job in the parade, but were getting a little *spitty* with each other before the parade started because of the long wait beforehand. Some of the parade attendees were able to visit with the animals in the parade staging area. Everyone wanted to know the difference between the llamas and alpacas. (Note to anyone having a public event – Be able to answer this question. You will say it 1,000 times. 😊)

The parade attendees loved seeing the llamas and alpacas. It's always exciting to hear the kids' and adults' alike show enthusiasm to see the lamas year after year.

Sandy would like to thank Karen and JJ for helping with the parade this year and also Sandy's family for always supporting her and her crazy ideas. A huge shout out and thank you to RMLA for sponsoring our Arizona team in this annual event.