

Fall 2025

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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About the Journal

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.

The information in The Journal is not intended to be a substitute for qualified professional advice. Readers are encouraged to consult with their own veterinarian, accountant or attorney regarding any questions concerning their animals or business operations.

RMLA is not responsible for any losses resulting from readers' failure to heed this caution. The views expressed by the authors of articles are not necessarily those of the Rocky Mountain Llama and Alpaca Association, Inc., its officers, directors or members.

To request permission to reprint content from the Journal, you must obtain permission from the author. Send your request to Kathy Stanko, RMLAeditor@RMLA.com who will obtain the permission to reprint, then respond to you. Note "reprint request" in the subject line.

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Cover Photo: From Jennifer Starr. An afternoon hike at the Rocky Mountain Pasture Show

From the Editor

Kathy Stanko, Editor, rmlaeditor@gmail.com



A cool off in the Yellowstone River, Montana

The days are cooler and the nights are longer. I love fall. Perhaps you do too. For us, it is a time to get back outside to finish up a few summer projects and prepare for winter. In this issue you will find articles to help you and your llamas and alpacas prepare for Winter. See the articles *Winter Grazing Considerations* (page 28) and *Cold Weather Tips* (page 18). And special care for our older animals can be found in *Preparing for the Aged Llama* (page 34).

Please consider the very important information from your Board of Directors throughout this issue beginning on page 6 with the letter from the Board. RMLA is in need of members to take an active role in our future. If this organization is important to you, you will find the time and energy. Your voice and talents help make RMLA a vital organization for llama and alpaca lovers everywhere.

Enjoy the article from Nancy Wilson (page 21) about her knitting cruise to Alaska. And our members have planned and put on a number of exciting and successful events over the summer. Please see pages 8, 14 and 32.

Finally, this is my last issue as your editor. I have enjoyed bringing the RMLA Journal to you four times a year for the past 12 years! But it is now time for the Journal to have a new voice. I want to

thank each of you who have contributed articles, photos, and ideas. I want to thank all of the Board of Directors who have guided me and supported me. For me it has been an incredible journey.

Journal Submission Dates, Ad Rates & Specifications

All of this information may be found at RMLA.com

Ad rates are quoted per issue. Lock in the current rate by purchasing an ad for four consecutive issues and receive a 5th ad for free. You may change your ad once during the year.

Dear fellow RMLA members

This may be **your last** copy of *The Journal of RMLA*. Read that again: This may be your last copy of *The Journal of RMLA*.

If you find yourself asking why this may happen, the answer is simple. No one has stepped up to be the new editor (or team of editors). There have been multiple eblasts regarding this position.

The Journal is the most important publication that serves RMLA's mission statement to educate members and the public about caring for llamas. The Journal and the RMLA publication *Caring For Llamas and Alpacas* are RMLA's most visible presence in the llama community.

There are other needs as well. Someone is needed to handle the membership and eblast processes. There is a vacancy on the board of directors. You will find information about these and other positions throughout this issue. Please consider how you could help continue RMLA's important role in the llama community. Could you write an article for the Journal? That would save an editor a lot of time rounding up articles. Other llama organizations often request permission to reprint RMLA articles, so that tells you what we offer is valuable to other organizations.

RMLA also sponsors a number of events such as the upcoming FallamaFest and the National Western Stock Show. These events get their liability insurance through RMLA. Without that sponsorship, these events will have to find other sources of liability insurance. That will add to entry fees and, in some cases, may necessitate the event no longer being held.

You may say you're too busy. We are all too busy. That's life these days. When something is important to you, you step up to make sure it continues. Many people working together make the individual load less for each person. Isn't that one of the reasons we use llamas as pack animals? It lessens the load for everyone.

I urge you to consider how you can be a part of ensuring RMLA's continuance as a leader in the llama community. Any of the board members would be happy to talk with you about the time commitment involved in any aspect of running RMLA.

Sincerely,

Nancy Wilson
Vice President

Save the Dates

Annual RMLA Meeting via zoom on Monday, December 8, 2025 at 5:00 p.m. (Arizona time). More information will be sent later.

2026 National Western Stock Show, Denver, CO. The show is from January 10-26th. The schedule is still tentative. Contact Judy Glaser at judy.glaser@yahoo.com for more information.

Letters to the Editor

Kathy, what a job well done for so long! You brought the Journal from old-fashioned black and white printing to fabulous four-color electronics, modernizing it as it never before had been. It has been a pleasure to be one of your proofreaders, looking forward to seeing the different and interesting articles you have assembled in each issue.

Having been editor of the Journal many years ago, I have a very, very deep respect for the job you have accomplished over the past dozen years. Members and the lama community will miss your devoted attention to producing the outstanding Journal of the RMLA.

Thanks, Ron Baird

Dear Kathy,

Back in 2013, RMLA was struggling with the Journal's lousy content and appearance. Members complained, but none would help! Sound familiar? Time was close to putting the publication to bed in the final way.

Late one evening, out of nowhere, you contacted me. I knew you by name only. Gently, you said we could do a better job creating the Journal and then did the unheard of! You openly admitted you had no experience or knowledge of how to do it, but you were willing to try. You asked for the job!

This was good news for RMLA. You dug in, met other industry editors, talked with members about what they wanted to see and worked with the board to set policy and procedures that maintained editorial self-direction with clarity, content and appearance.

You have brought this Journal from a pathetic rag sheet publication to the most outstanding camelid educational publication across the nation and far reaches elsewhere around the world. This has promoted RMLA to a leading position in the industry, which we enjoy today.

It has been a genuine pleasure to work with you. Your willingness to learn and successfully lead are outstanding and appreciated. Thank you for your service to RMLA and for our friendship.

Lougene

The Rocky Mountain Pasture Show 2025

By Jenny Starr and David Rowan



After a four-year hiatus the Rocky Mountain Pasture Show, located at 2Bit2 Ranch in Guffey, Colorado is back! The show ran from July 11th, with performance classes on Saturday July 12th, and halter classes on Sunday July 13th. We were honored to have two wonderful judges, Ana Reese and Aspen Kelchen. Our judges not only did a fantastic job judging, but on Sunday they put on a free showmanship clinic with the assistance of Jens Rudibaugh. What a wonderful opportunity to learn tips and tricks so one can shine in the showmanship ring.

The course was rustic; pack classes involved making your way through the trees, encountering a campground with a mannequin, tent, bridge and a water feature. Our beloved *Peanut*, a 7-foot inflatable Big Foot, sprayed water from his head and arms creating a small pond exhibitors had to navigate. The weather was warm, and *Peanut* was just the right amount of intimidation while also being quite refreshing. There were some refusals but not many. The obstacle and PR course were constructed almost entirely out of materials obtained from the pasture and woods surrounding the ranch thanks to Jens Rudibaugh's ingenuity and muscle.

After the performance classes, we enjoyed a potluck BBQ, mountain theme cocktails/mocktails, and a henna art session. To end a perfect day, llamas and exhibitors hiked on the ranch through aspen groves with views of 11 Mile Reservoir. It had rained just before the hike and the sunset was breathtaking.

Halter classes were small, but we hope to increase numbers as RMPS is a double halter ALSA show. Given the rustic conditions, we did have a prize for trashiest looking llama, so be on the lookout for that next year! Our host and 2Bit2 Ranch owner, Marcie Saska-Agnew, took the top spot for this award. Hey, when you live in the mountains your llamas sometimes collect pinecones in their fiber!

While this was a very rustic show, (porta-potty, dry camping etc.), we did have a local food truck, Margaret's Munchies. We plan on having them back next year so if you have yet to try a Yak burger, here's your chance—they are delicious!



So, what's new for next year? We will likely be moving the date to the end of June in order to accommodate 4-H shows which usually start the second week in July. We would love to have as many youth participants as possible. Our goal is to create a fun, laid back, educational experience where exhibitors can connect and enjoy a peaceful get away in the mountains. Next year you can count on a hike, a youth scavenger hunt, clinic, and as much good food/drinks and laughter one can muster. We hope to see you next year at RMPS, please look for us on social media and ALSA for updates on next year's show.

The Rocky Mountain Pasture Show would like to thank RMLA, our participants, and volunteers. Special **thank yous** to Marcie Saska-Agnew, Jens Rudibaugh, Patti Morgan, Sally Rucker, Robin Benton, Dave and Christy Cruickshank, Claire, Brooke, and Seth Rowan.



Peanut makes a splash and a challenging obstacle



Group photo with youth who traveled from California, affectionately called the Flaminglets (aka young Flockers), show group.



Not so sure about this person



Amazing obstacles can be created from what is just lying around!

Social Butterfly Needed!

From the RMLA Board of Directors

If you're passionate about llamas and alpacas and love spending time on social media, we have a fun volunteer opportunity for you! We're looking for a Social Media Chair to keep RMLA's online presence vibrant, engaging, and full of llama and alpaca charm.

In this role, you'll manage posts on our Facebook, Instagram, and TikTok accounts – highlighting member stories, events, farm life, fiber fun, training tips, and whatever else makes our community shine.

Curious or ready to jump in? Reach out to Julie Hall at jmhbluehorse@yahoo.com to learn more or express your interest. She'll be glad to hear from you!

Ccara Llamas: The Ultimate Pack Animal for the Back Country

By Stephen McFarland

Reprinted by RMLA with permission from the author and LANA

Let me preface this article with a statement: “there is a llama for everyone.” This statement rejects what I personally believe to be evident in the llama world. Not everyone needs a llama built for traversing harsh terrain, stepping over logs, going miles upon miles daily, loaded with 20-25% of its weight. Some of you that own llamas have already discovered that you can train just about ANY llama to pack. What follows in this article are the distinct attributes that separate the Ccara llama from the rest.

A **Ccara llama** (also spelled K'ara in South America) is a specific type of llama bred for packing. Unlike woolly or silky llamas, Ccara llamas have a short, double-layered coat, a strong and athletic build, and a straight topline, making them well-suited for carrying loads over long distances. They are sometimes referred to as the “Classic Ccara Llama.” They are known for their conformation, endurance, intelligence, and calm temperament, making them ideal pack animals.

Ccara llamas trace their lineage back to the traditional working llamas of South America. These animals were bred for strength, endurance, and reliability in rugged Andean terrain, where they served as pack animals for indigenous people. Today, their legacy is preserved in North America by breeders committed to maintaining their functional traits.

Ccara llamas are distinguished by their:

- Conformation: Strong, athletic build with a straight topline and well-muscled legs.
- Coat Type: Short, double-layered coat that reduces overheating and minimizes grooming needs.
- Height & Weight: Typically 44-52 inches at the withers and 290-400 lbs., making them large enough for effective packing.
- Temperament: Intelligent, calm, and highly trainable with excellent trail instincts.
- Endurance: Capable of carrying 20-25% of their body weight over long distances.

Many people assume all llamas can be pack animals. Ccara llamas are specifically bred for this purpose. Here’s how they compare:

Feature	Ccara Llama	Woolly Llama (Silky/Woolly)
Purpose	Packing, working	Fiber production, pets, showing
Coat	Short, double-layered	Long, dense fiber (silky or woolly)
Build	Strong, athletic	Bulkier, less streamlined
Height	44-52 inches	Can be shorter or taller
Maintenance	Low (minimal grooming)	High (shearing needed)



Ccara llamas are more than just another type of llama—they represent a specialized lineage bred for performance. While debates over packability, coat type, and breed standards continue, one fact remains: the Ccara llama excels in the backcountry, standing apart as a true working companion for outdoor enthusiasts, hunters, and trekkers. There are always individual exceptions to this on both sides.



The term **classic-coated llama** is often used interchangeably with Ccara llama, but there are important distinctions. While all Ccara llamas have a classic coat, not all classic-coated llamas meet the strict conformation and working ability standards of a true Ccara llama. The brown llama below illustrates a classic coat llama who lacks good conformation. The white llama to the right is a classic coat llama with exceptional conformation.



Feature	Ccara Llama	Classic-Coated Llama
Coat Type	Short to medium-length fiber with a dense undercoat and coarse guard hairs	Similar coat length but may have more fiber variation, sometimes softer or longer than a Ccara
Purpose	Specifically bred for packing, endurance, and structural soundness	May be used for light packing, but not necessarily bred for rigorous work
Muscle & Bone Structure	Strong bone density, muscular legs, and a straight. Level topline for carrying loads efficiently	Conformation varies — some may lack the bone structure or topline needed for heavy packing
Feet & Pasterns	Compact, well-formed feet with strong pasterns built for long- distance trekking	Feet can be well-formed, but some classic-coated llamas may have softer pasterns or weaker hoof structure
Stride & Movement	Long, efficient stride, covering ground easily with minimal wasted energy	Movement varies — some may have less efficiency or endurance for high-mileage packing
Temperament & Trainability	Selected for Intelligence, calmness, and willingness to work under pack conditions	Temperament varies — some may have the right disposition for packing, while others are more companion-focused
Heat Tolerance	High — minimal fiber reduces heat retention, making them well-suited for warm climates	Generally good heat tolerance, but those with slightly longer fiber may overheat more easily
Pack Weight Capacity	20-25% of body weight (approx. 60-90 lbs.) over long distances	Can carry weight but may not sustain high-mileage packing as efficiently as a Ccara
Genetic Lineage	Specifically bred for packing ability and structural integrity	Classic-coated llamas may not always come from packing- focused bloodlines

One of the biggest challenges facing **Ccara llamas** today is a lack of **genetic diversity**. Because they have been selectively bred for packing ability, sound conformation, and endurance, their gene pool is significantly smaller than that of the general llama population. This limited genetic diversity presents several concerns for breeders and packers alike.

Unlike their South American ancestors, many North American Ccara llamas come from a small number of foundational bloodlines. While these llamas were carefully selected for packing ability, the lack of fresh genetics has led to a bottleneck in breeding programs. Without new blood, breeders risk producing offspring with limited variation in size, structural soundness, and working ability over time.

To maintain the strength and utility of Ccara llamas as premier pack animals, introducing new bloodlines is essential. However this process is not as simple as introducing any unrelated llama into the breeding pool. Breeders must carefully evaluate new candidates based on:

- **Structural soundness** - Strong bone density, correct leg and pastern angles, and a level topline are non-negotiable.
- **Working ability** - A new bloodline should come from llamas with demonstrated endurance and packability.
- **Temperament** - A steady, trainable disposition is key for reliable pack llamas.
- **Coat type** - New breeding stock should ideally maintain the classic coat rather than introducing excess fiber.

Ccara llamas are some of the best pack animals available today, but their long-term success depends on maintaining genetic health. To ensure the future of the breed, careful outcrossing, selection, and genetic management are necessary. By focusing on both preserving traditional traits and expanding genetic diversity, breeders can continue producing strong, healthy, and reliable Ccara llamas for generations to come.

For those looking for a reliable, capable, and trail-tested companion, the Ccara llama remains unmatched in the world of pack animals.

A list of Ccara Llama Breeders and Screeners can be found by visiting: www.ccarallama.com.

About the Author: Steven McFarland is the owner of Happy Homestead Llamas in Magalia, California, and serves as a CCARA-certified screener for the North American Ccara Association's llama breeding and conformation standards.

RMLA EVENT

Colorado Birthday Party

By Julie Hall

Thunder J Ranch recently attended the Colorado Birthday Party at the Spirit of 1876 Outdoor Store in Castle Rock, CO. We brought three llamas and one alpaca, and had wonderful interactions with those attending the event. We answered questions about fiber, the differences between llamas and alpacas, and uses for both. It was great to have the support of the RMLA for us to be able to attend events like these and share our love for these animals.



Top 10 Qualities Farm Kids Bring to the Work Place

By Rachel Kagay, Leadership Development Manager, FFA Enrichment Center

Reprinted from the Summer 2016 RMLA Journal

In my experiences growing up on a farm, and in my line of work, I have interacted with a wide variety of people. Since an early age, I have always believed you can quickly identify upon meeting someone whether or not he or she grew up on a farm, has worked on a farm, or possesses the *farm kid* mentality. These students and young professionals possess recognizable talents and abilities that allow them to stand out from their peers. Without further ado (and in no particular order) here are the top ten qualities kids who grew up on a farm bring to the workplace.

Work Ethic: Farm kids are instilled with the value of hard work, and a great work ethic. They are resourceful and willing to stay until the job gets done, and done right. Often, this work ethic translates into a willingness to get dirty when necessary, and complete the work even when conditions aren't ideal. Knowing the value of hard work also means that you can count on farm kids to have the determination to see a task through to completion, often without close supervision.

Responsibility: Employers and co-workers often recognize their 'farm kid' colleagues are reliable and dependable. Responsibility is extended to farm kids at an early age. Growing up, the rule in my home was "you eat after the animals eat"; my sister and I knew that we were accountable for having our chores completed before we sat down to the dinner table. In the workplace, these colleagues can be expected to take full ownership for their projects and work to get the job done right.

Critical Thinking Skills: Challenges often arise on a farm; addressing these issues develops skill in independent thinking, problem solving, ingenuity, and offering creative, innovative solutions. Through a social media discussion Katie C. shared, "[Farm kids have] the ability to solve problems and come up with creative solutions! I had a kindergarten teacher tell me she can pick out the farm kids as early as kindergarten based on their ability to problem solve." I believe this ability expands and deepens over time, serving as a great asset in the workplace.

Flexibility: Nature and the markets don't always trend the way we'd like on the farm. In the workplace, this translates into the ability to be flexible as needed and make do with a given situation. I'm sure, like myself, many farm kids can look back and remember mornings when plans were drastically changed due to escaped livestock – resulting in being late to church, work, or school. On the farm and in the workplace, sometimes things must be done that are not on our preferred time frame or schedule.

Initiative: Farm work imparts an ability to see what needs to be done, and then seek to accomplish that work. These individuals are driven, and typically have less hesitation in making decisions regarding work. Farm kids take action on the work as necessary, without always needing to be given instruction or direction.

Perseverance: Persistence, endurance, and perseverance: all qualities that farm kids bring to the workplace. They often possess a great internal drive, and can make hard choices when necessary. They know how to deal with disappointment, and have an optimistic outlook regardless of the situation. For many farm kids their faith in a bigger plan empowers their perseverance and optimism.

Team Player: Very little work on a farm is done completely independently. In the workplace, farm kids know that it takes the whole team to accomplish a project with the most success. While working independently is also a skill of farm kids, they bring a willingness to assist co-workers as needed. Often they are eager to do what it takes to support the overall work of the team or organization.

Real World Skills: Often farm kids come to the workplace armed with practical, real world skills they can directly apply to their jobs. Often, these skills are in the practical areas of science, technology, engineering and math, as well as general agriculture. These skills translate into on-the-job common sense and ability that benefit themselves and their peers in the workplace.

Respect: Respect for others, respect for authority, respect for property are all learned on the farm. This often translates into being a colleague that knows how to extend respect to others, treat others well, and be open and coachable.

Humility: Farm work results in being rewarded over time for your labor; there's very little instant gratification. In the workplace, this often translates to less of an *I deserve* attitude, a lack of pretentiousness. Through a social media conversation, Katy K. shared that this attitude develops from the fact that "you don't reap the field of benefits if you didn't plant, [you must] plant and care for it properly along the way."

Please let me make one thing clear. I am not implying that only those that grow up on a farm possess these qualities, and that non-farm individuals do not have these abilities. I believe that growing up on a farm facilitates the opportunities for these skills to develop more naturally than it might for those without the same experiences or opportunities. There are other avenues for these skills to develop with conscious effort.

There is a bonus 11th item for the list that I believe overarches all the others: **Passion**. Passion for the field of agriculture often translates into the workplace; it facilitates and motivates the other qualities on the list. We are engaged in this industry because we care, because we love it, and because we live it.

About the Author: Rachel Kagay serves as the Leadership Development Manager for the FFA Enrichment Center in Ankeny, IA. Rachel graduated from the University of Missouri in 2012 with a Master of Science degree in Agricultural Education, where she emphasized her thesis work in leadership development. Rachel is passionate about facilitating opportunities for youth and adults to maximize their natural potential. She is a certified Strengths Coach through Gallup, Inc. and a Habitudes[®] Certified Facilitator through Growing Leaders. In addition to these services, Rachel offers team building, strategic planning, and other facilitation services.



It's Truly Amazing!

...what the volunteers and contributors of Southwest Llama Rescue can accomplish together. Help is always needed, and your time and money go a long way! And when you designate SWLR as your charity when you shop at Smile.Amazon.com, a percentage goes to SWLR. It's automatic, doesn't cost you extra, and really helps SWLR! *Contact us* to find out other ways to help...

Website: SouthwestLlamaRescue.org
Email: SouthwestLlamaRescue@gmail.com
Facebook: Facebook.com/Rescue.Llamas

SWLR is a 501(c)3 non-profit organization supported 100% by donations. Ad paid for by Southwest Llama Rescue, Inc.



From Farm to Page: Leading the RMLA Journal

From the RMLA Board of Directors

Do you love reading, writing, and sharing great stories? Help shape the future of the RMLA Quarterly Online Journal – our community’s hub for research, training tips, farm spotlights, member stories, and more.

We’re seeking an Editor – or a small team – to guide the Journal’s next chapter. You’ll have creative freedom over content, tone, layout, and style, while ensuring everything aligns with the RMLA mission. Training and ongoing support are available from our current Editor. The Journal is published four times a year, creating regular opportunities to highlight the voices and expertise of our vibrant community of llama and alpaca enthusiasts.

Prefer to wear all the hats yourself? Great. Want to share the work with a partner or two? Also great. You get to decide. Here is an example of how the editor’s work can be divided into three positions:

Content/Managing Editor Think of this role as the project manager + content curator – you keep the trains running and the overall vision on track.

- **Plan the Issue**
Decide what stories, research, or features will go into each quarterly journal. You’ll map out the lineup, making sure there’s a good mix of voices and topics.
- **Coordinate Contributors**
Reach out to members, writers, or experts and invite them to submit articles or stories. You’ll keep track of who’s writing what, set deadlines, and make sure everything arrives on time.
- **Mission Alignment**
Ensure all content reflects RMLA’s values – education, community, and celebration of llamas and alpacas. You’re the big picture guide for the journal.

Copy/Section Editor This role is the quality-control storyteller – ensuring every article feels professional, polished, and reader-friendly.

- **Polish the Writing**
Edit articles for clarity, grammar, tone, and flow so that they’re easy to read and consistent across the issue.
- **Support Writers**
Give constructive feedback and suggestions when a piece needs reshaping, while keeping the author’s voice intact.
- **Curate Sections**
Make sure key areas like veterinary care, fiber arts, training, packing, or breeding are represented and balanced.

Production/Layout (or Web Publishing) This role is the visual builder and publisher – making sure the journal isn’t just great to read, but also visually appealing and professionally presented.

- **Format & Design**
Take the edited articles and format them for the online journal. Arrange text, photos, captions, and graphics so the issue looks attractive and easy to navigate.
- **Manage Images**
Choose and prepare photos (resizing, cropping, adding captions) so they complement the written content.
- **Publish Online**
Upload everything to the journal’s website platform, double-checking links, formatting, and accessibility before launch.

We welcome proposals from individuals or teams. Interested? Have questions? Please contact Courtney Chalmers at chalmerscourtney3@gmail.com. Thank you for helping RMLA continue to educate, connect, and celebrate our community!

Cold Weather Management Tips for Camelids

By Stephen Hull, MS, PhD, and Tom Cameron, DVM

Photo by Katrina Petteys Capasso, Dakota Ridge Llama

Reprinted from the RMLA Journal Winter 2015

Winter will soon be upon us. Here are some tips for handling the cold and some measures to prevent cold weather losses. Few of these tips cost any money. Above all, watch your weather forecasts for sudden drops in temperatures - especially those associated with wind. It is the change that is hardest.

First, watch out for any animal shivering. This is danger, danger, danger. Cold affects the rumen protozoa and they stop digesting forages. Consequently, the rumen shuts down, the alpaca or llama cannot generate heat, and death can be



only hours away. Dominant (alpha) animals will find the warmest areas and will push out younger or other less dominant animals. The alpha animals also hog the hay and will prevent other animals eating. Be especially careful of newly weaned yearlings as they are having troubles finding their way in the group. Each year, I often have to put yearling males in a stall in my girl's barn with heaters. Older animals also get pushed aside.

As we know, camelids can deal with cold, as long as there is little wind. So get some shelter (tarps, hay bales, etc.) up to protect them from the wind. Suris are especially susceptible to wind chill. But check all your animals' body scores as the fleece will hide a thin body frame. Those thin animals are especially vulnerable to the cold.

Another tip is to bring them hot water to drink. I fill two five-gallon plastic pails half way up with steaming hot tap water and carry them (one in each hand) to the barn where I mix with some cold water resulting in about 100-degree F water. Even though I have other electrically heated water buckets, the water in those is maybe 45 degrees F. I also put in 1/4 cup of dry Gatorade (mine love the lemon lime flavor) in a full five-gallon pail. The electrolytes in Gatorade assist with digestion, protozoa and rumen function. The animals line up to drink deep, long draughts. I do this several times a day in bitterly cold weather. The smiles they give you are one reward for your work.

To keep bucket water warm for a longer time, I wrap the outside of the plastic five gallon buckets with aluminized bubble foil (aka *Tec Foil*) available at Home Depot/Lowe's/etc. Secure it in place with metal foil tape (in hardware). The bottom gets insulated with two layers. Hot water stays warm for hours longer.

Males especially need extra warm water to flush out their urinary tract. In cold weather, camelids will not drink enough water and consequently do not have a full vigorous stream of expelled urine. The weaker stream allows urinary crystals (uroliths) to accumulate along the S-shaped urinary urethra and they often get winter urinary tract blockages. More warm water allows them to flush out deposits that normally are swept away with urine flow.

Forget cleaning out the barn! Allow waste hay and droppings to accumulate. Spread out more hay on top as this provides a warm "bed" for them to lie on. Straw is actually a far better insulator compared to hay as it has more trapped air volume, but you may not have time to get it. Many farms in Switzerland allow the accumulating composting



heat from floor manure/bedding hay throughout the winter to keep their livestock warm. And they keep livestock in the lower levels of their houses! Quite a clean out in the spring!

A word of caution from Dr. Callan, CSU Vet Teaching Hospital: *Allowing waste and hay to accumulate will increase heat. But, it also increases ammonia gases and that can have a negative impact on respiratory health if the barn is not well ventilated. It is a balance. Trying to keep a clean dry straw bedding pack of 6 inches to insulate from the ground is what we do for dairy calves in outdoor hutches and this will work for camelids.*

Another more high-tech approach is to use those red electric heat lamps above bedding spots. Just be careful to put on the wire shield so an animal can't accidentally hit/touch it and get burned. Electric dog whelping mats (PetCo, PetSmart) provide a very toasty bedding place for cold animals. As with all electricity issues, take care with water, electricity, extension cords and the cold (brittle) wires. Remember urine contains salts and this is a superb conductor of electricity.

Put lots of jackets on young and older animals. The females that had crias this fall are especially vulnerable. They are lactating and that puts a huge energy demand on them. This cold adds yet another demand. Many are also rebred. One result of a sudden severe cold snap is abortion. Don't lose your pregnancies due to cold weather shock.

You don't need expensive jackets to keep your animals warm. Old wool sweaters, large ski jackets, etc. all work. Cut the sleeves off at the elbows and slip them on. Zippers go along their backbone. Recall leg warmers from the 80's? They fit on necks to keep them warm and are given away free at Goodwill. My females like the pink ones funny looking, but WHO cares. I often get the jacket/sweater rejects (frayed sleeves) at the local Goodwill store for nothing.

Don't double the daily pellet/grain ration. Increase it maybe 25-30%, but NOT more. Rather, POUR on the hay. Don't scrimp now. This would also be a great time to throw out some alfalfa hay (not pellets).

Normally, alfalfa is too hot a forage with excess protein for the average camelid. But this sudden cold is not normal. The rumen heat of digesting rumen forage, especially from alfalfa, helps ruminants keep warm. Grains do not provide this digestive heat. (Note: horses, without a rumen, do need more grain in the cold.) About 2-3 lbs. of daily extra alfalfa forage per animal can be a life saver. And they love it. Two 70 lb. alfalfa bales for ten animals should last you about a week.

Vet schools will be deluged with cold weather cases this year. Hypothermic stress causes ulcers, abortions - and a lot of deaths. I am not trying to cut off their revenue source, but rather helping you save some dollars and your animal's health! Vets would far prefer to not deal with cold stress, as it is preventable. Keep warm and PREVENT hypothermia as it is much less expensive (compared to treatment).



MEMBERSHIP OUTREACH

Balancing the Load

From the RMLA Board of Directors

Whether we're loading a trailer or guiding the Rocky Mountain Llama and Alpaca Association into the future, balance is essential. Right now, our Board is made up of four dedicated members, but to truly move forward effectively, we need a fifth to even the load – just like a well-packed trailer, everything works better when the weight is shared.

In short: **many hands make light work.**

Serving on the Board of Directors is not only a great way to support the RMLA community, but it also offers meaningful professional development. Board service with a nonprofit strengthens your resume by providing hands-on experience in leadership, decision-making, budgeting, strategic planning, and more.

We are currently seeking a committed, enthusiastic individual to fill a **three-year term** on the Board. The new Director will officially assume the role at the close of the Annual Meeting this fall. This is an exciting opportunity to help shape the future of RMLA, contribute to educational initiatives, expand member outreach, and promote the growth of our llama and alpaca community.

If you're passionate about our mission and eager to share your time, energy, and ideas, we encourage you to apply. Please send a brief bio and a short statement outlining your interest in serving to RMLA President Judy Glaser at judy.glaser@yahoo.com. Together, we can carry the load and move RMLA forward.

A Knitting Cruise to Alaska

By Nancy Wilson



Juneau, Alaska

I've always wanted to see Alaska. My parents spent most of the summer of 1993 there, and I was unable to go then, so when this opportunity presented itself, I decided this was my chance. What better way to see some of Alaska than on a cruise with other knitters? Knitting is my second fiber language after spinning. We cruised the Inside Passage, with stops in Skagway, Juneau, Ketchikan, Glacier Bay National Park, and Prince Rupert.



Glacier Bay National Park, Alaska

Our instructors for this adventure were Amy Snell and Xandy Peters. The classes I took were:

- Fizzy Drinks Felted Mosaic Felted Coasters with Amy Snell
- Colorific Cast-Ons with Amy Snell
- Introduction to Stacked Stitches with Xandy Peters
- Stitch by Color with Xandy Peters

We also had two lecture presentations:

- The Right Yarn for the Job with Amy Snell
- Color Theory for Fiber Artists with Xandy Peters

All the techniques taught were new to me. It was great having the opportunity to learn from experts along with the time to practice the techniques and ask questions about them. While I didn't necessarily make complete projects from any of the classes (other than four of the coasters), I feel confident in my ability to learn the techniques on my own with the handouts that were provided.

I made four of the coasters. Amy told us they're like potato chips; you can't have just one. Here are the four coasters I made while on the ship, with more in the works afterward. I'm really intrigued with mosaic knitting, as it provides a technique for colorwork that only requires knitting with one color on each row. We learned about using black and white photos of yarn to see the difference in value (or lack thereof) to help inform our color choices.



Fizzy Drinks Felted Mosaic Felted Coasters



Colorific Cast-ons Samples

Colorific Cast-Ons had us learning alternate methods of casting on stitches. Who knew there were so many ways? Lots of hand dexterity involved, especially the long tail purl cast-on. I have lots of little samples of the methods and plan to make swatches to see how they work in a potential knitted project.

Stacked stitches are a challenge. This technique is definitely not one to do while watching television, as it definitely requires concentration. This technique is Xandy's specialty, and the projects he showed us were awe-inspiring.



Stacked Stitches Sample



Stitch by Color

Stitch by Color is a way to use self-striping yarn in ways to create texture in a project. I had brought a number of yarns for this class, and found out that most of them, while multi-colored, were not right for this technique. Space dyed yarn, where there are distinct changes in color repeated throughout the length of the yarn are needed. My friend and roommate had some yarn that will be perfect for making swatches with the technique. You can create rules for your knitting. For example, when the color changes purl the stitch instead of knitting it, or create a bobble at a specific color change.

Amy's talk on using the right yarn for the project gave me a lot to think about as a spinner who knits (and weaves). Yarn structure as well as color can either enhance or detract from the finished project. Likewise, Xandy's talk also was helpful in choosing colors to have an eye-catching project. After all, if you're going to spend all that time and money on the yarn and a project, don't you want it to make you feel like a million bucks when you wear it?

At each port there was a yarn store to visit. So, of course, we had to visit and buy at each port. As a spinner, I was still able to come home with a fair amount of spinning fiber. All that soft stuff is easy to squish into luggage for the trip home.

If you have an opportunity to combine your fiber interests with travel interests, I highly encourage you to do so. This was a trip of a lifetime for me. Being on a huge ship (18 floors of elevator huge) gave me a tribe to hang out with so the ship didn't feel quite so big. We could spot each other easily since we usually carried our swag bag (which held an incredible amount of goodies). Other travelers would ask about our knitting projects, so we felt a bit like celebrities.

Happy fiber goodness!



Glacial drift cowl that was the cruise mystery project.

MEMBERSHIP OUTREACH

Be the Constant in Our Contact

From the RMLA Board of Directors

We're on the lookout for a member who is willing to keep our community in the loop about what's going on at RMLA.

If you have used Constant Contact (or are willing to learn!), this might be a great fit. You'd be working with the Board and members to develop and send out eblasts throughout the year – things like event reminders, calls for volunteers, general news or announcements.

It doesn't take a huge time commitment, but it does make a big impact. Training will be provided. Contact Nancy Wilson at spinllama@msn.com to learn more and to express your interest.



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Electric Shears – Blades, Care and Maintenance

By Joe Viola, Viola Sharpening & Repair, Eglon, WV

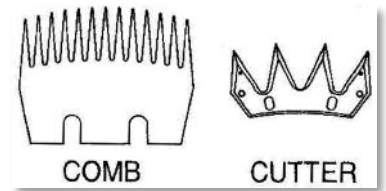
Reprinted from a 2016 RMLA Journal

Years ago, when the only electric shears you could buy were Oster Shearmasters, I wrote up a short flyer on how to install the blades and maintain them. Although written for the Shearmaster, the information will apply to all the newer shears as well. I hope this is useful.

Installing New Blades

The cutting end of your clippers consists of a larger bottom piece called the comb and a smaller cutting piece called the cutter. A comb and cutter combination are usually called a set of blades.

Any comb and any cutter can be used together; it is not necessary to keep them as a set. To get the best cutting results with your clippers, blades must be both aligned and adjusted. Alignment involves placing the comb in the proper position. Adjustment involves applying the right amount of pressure.



First remove the old blades by loosening the tension knob. This raises the forks that hold the cutter in place. Then loosen the comb screws and remove the old comb and cutter. A three point shears screwdriver makes this very easy.

To install new blades, hold the clippers with tension knob pointing down and comb screws pointing up. Set the new cutter on the forks with the engaging pins in the four cutter holes. Then slide the new comb in place under the comb screws. Tighten the comb screws lightly for now. Tighten the tension knob just enough to hold the cutter in place.

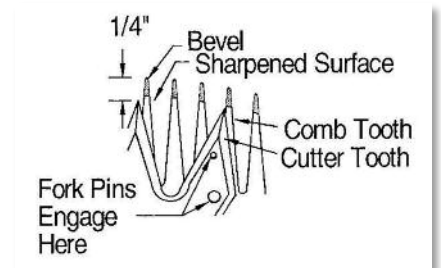
Aligning the Blades

Proper alignment of blades requires that:

- The cutter points operate on the sharpened surface of the comb behind the bevel.
- The movement of the outer teeth of the cutter extends evenly to the outer teeth of the comb.
- The heel of the comb is parallel to the heel of the head.

To accomplish this:

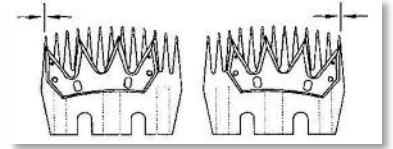
Adjust the comb position so the cutter point is about 1/4" from the tip of the comb. The entire cutter point must run on the sharpened comb surface. On the new comb this will be about 1/16" behind the bevel. On combs that have been sharpened many times, the bevel may have been ground away.



Make sure the heel of the comb is parallel to the heel of the head. Now tighten the screws securely.

Lastly, turn on the clippers and check that the cutter moves to cover the outer teeth of the comb.

It may take several attempts to properly align the comb and cutter. Improper alignment can cause wool streaking, dull cutting, or excessive skin cuts.



Adjusting the Blades

Final adjustment is made during the shearing with the clippers running. Pick a clean patch of wool on the sheep and begin cutting. If wool is not being sheared smoothly, increase the tension knob slightly, no more than 1/8". Continue shearing increasing the tension in this manner until the wool cuts smoothly and cleanly.

Increasing the tension beyond the minimum tension point will cause premature blade wear, will reduce the cutting speed, and will cause the motor to run hot. Tension should not need readjustment until the blades begin to dull. This will be indicated by chewing off the wool rather than cutting smoothly and cleanly.

Care and Maintenance

Clipper maintenance is not complicated or time consuming. Follow these guidelines and your clippers will last a lifetime:

Keep your motor screen free from hair and dirt. If the screen becomes blocked, the internal fan cannot vent the motor's heat. Excessive heat can dry out bearings and ruin armatures, creating a costly repair bill. To prevent this, remove and inspect the screen daily.

Lubricate the head and blades every few minutes when in use. Squirt oil into the oil holes on the head. Turn the clippers upside down and squirt oil into the head opening so that oil flows into the tension knob. Then turn the clippers on and pour more oil onto the running blades. Never squirt oil into the motor.

After shearing for the day, wipe your clippers clean. Use an old toothbrush or towel to remove as much dirt and shearing residue from the motor housing, cutting head, and blades as you can. Blow out any wool or dirt that may have gotten trapped in the head opening. An air compressor works great for this.

If you will not be shearing in the next few days, remove and clean the blades.

Yearly, or after about 200 hours of use, remove the cutting head from the motor and apply a small amount of grease to the gear opening at the rear of the head. Typical wheel bearing grease works fine, but do not pack the opening full. Excess grease will cause the clippers to run hot. This is a good time for a complete cleaning and inspection. This is a service I provide and involves complete disassembly, cleaning, lubricating, and inspection of bearings, wear pins, cups, and electrical parts. Contact me for details.

Why do clippers run hot?

Nine times out of ten, your clippers heat up because of one of the following:

- **Dirty motor screen.** Inspect it often and keep it clean.
- **Too much cutting tension.** Use only enough tension to cleanly cut the wool. Anything more creates excess friction and causes your motor to work harder.
- **Dull blades.** Using dull or improperly sharpened blades will require more tension to cut.



Am I On the List?

From the RMLA Board of Directors

An accurate member list is essential for RMLA. Without it, members may miss out on the RMLA Quarterly Journal, important email updates, and access to the members-only section of our website.

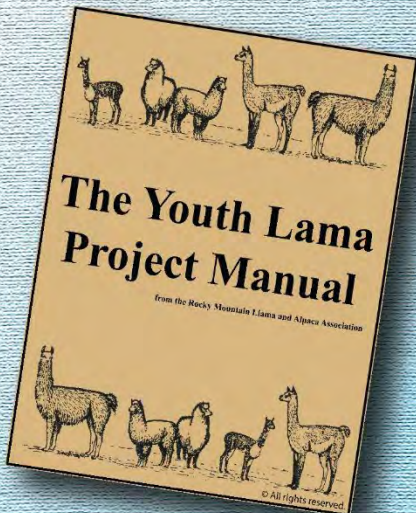
To help keep our community connected, we're looking for a Website Membership Chair. This volunteer position involves maintaining member records (using an Excel-type database software), assisting members with renewals and new sign-ups, and making sure the website reflects current member information.

You don't need web design experience – just basic computer skills, attention to detail, and a willingness to learn. Training and support will be provided. If you enjoy working behind the scenes and supporting the llama and alpaca community, this is a great opportunity to make a difference.

Interested? Please reach out to Julie Hall at jmhbluehorse@yahoo.com with a brief note about yourself. Thank you for helping RMLA stay strong and connected!

Rocky Mountain Llama & Alpaca Association

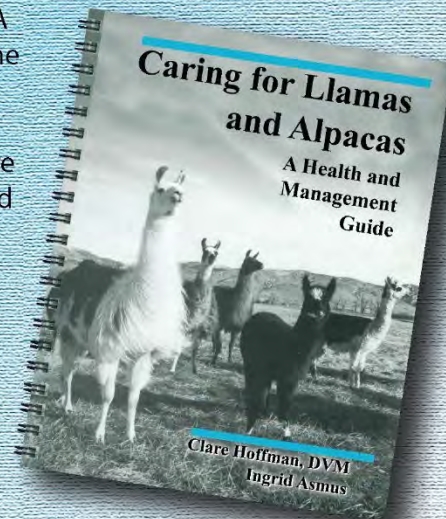
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Mission Statement

The mission of RMLA 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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Winter Grazing Considerations for Llamas and Alpacas

By Rebecca Kern-Lunbery, M.S. in Animal Nutrition from the University of Wyoming

Winter grazing can be a great way to reduce feeding costs by allowing animals to harvest their own forage and forgo the expense of harvesting or purchasing and storing large quantities of hay. However, when it comes to llama and alpaca winter grazing, their specific nutritional needs should be taken into consideration as well.

Llamas and alpacas are intermediate browsers and grazers, so ensuring a heterogeneous plant species make-up on pasture is key. For these animals to successfully maintain their body condition, achieve reproductive performance and produce high quality fleece, they need more than just grass. Llamas and alpacas need a good mix of grasses to provide fiber and bulk with legumes and forbs to provide protein, and other essential nutrients key to health, supporting pregnancy, and fleece production.

Pasture Considerations

Most pastures will have two productive seasons. First, in the spring when most animals are turned out to start grazing. Then, as plants mature and head out, there is a slump in the heat of the summer months. Then in the fall, pastures can become productive once again. Typically, this means forage quality is at its highest during the spring, then it can peak again in the fall under the right environmental circumstances including sun and precipitation.

However, once the first hard killing frost comes, forages stop growing and go dormant. The quality of these dormant forages is variable and depends on their species and what growth stage they were at when the killing frost came. More mature forages typically have higher fiber content, lower protein, and lower mineral concentrations.



Native Pastures and Rangeland

Native pastures can be variable in nutritional quality. We have a lot less control over what forage species are present on native range pastures. Furthermore, Rocky Mountain region pastures are especially unpredictable with plant species make-up and forage quality depending on so many factors. Some of these factors include elevation, precipitation, weather patterns, soil type and health status as well as other management practices. In addition to these

factors, we have seen invasive species such as cheat grass become an issue on Rocky Mountain grazing lands. Cheat grass crowds out native species and provides little nutritional value as well as being high in fiber and therefore unpalatable.

Managed Pastures

Managed pastures can be highly variable in nutritional quality as well. Research in the sandhills of Nebraska found that dormant warm season grasses contained 5-7% crude protein with cool season grasses having only slightly more protein (Volesky, 2023). Meanwhile, research in Wisconsin shows cool season grasses could have up to 18% crude protein during winter months (Paine and Barnett, 2005)! Some of these differences can be explained by the very different soil types, as well as management practices. In the sandhills, fertilizer application is uncommon on sandy soils, because the risk of it percolating through the sandy soils is high. In Wisconsin however, they specifically applied nitrogen to increase the protein content of those pasture forages.

Weeds

While species diversity often adds nutritional value, another consideration on both native or rangeland pastures and managed pastures is to know what weeds are out there. Toxic plants will still be present and pose a threat to animal health during winter months. Walking pastures and keeping an eye on both plant species for nutritional values and potentially toxic threats is a key to successful winter grazing.

Beyond weed risks, nutrient decline is another key consideration on both native and managed pastures. Forage does typically lose protein content and increase fiber content leading to lower quality forages from fall to winter months due to the seasonal weather, wind, snow etc. So, unless the pasture has been very carefully fertilized and managed, protein and energy supplementation will be key. Furthermore, mineral supplementation would be advisable, as forages at this time would typically have very little mineral content.

Snow Cover

Converse to what you might think, snow covered forages are protected from the elements! Therefore, snow covered forages in a winter pasture typically hold better nutritional value. Additionally, well timed snow cover can help with soil moisture and allow the pasture a quicker recovery and more productive spring season!

Snow cover can impact the success of llamas and alpacas grazing these forages. It is believed that most livestock species can graze up to eight inches of snow (Paine and Barnett, 2005). Yet, llamas and alpacas should be observed during winter grazing and when it appears that they are struggling with the snow cover, quality hay should be provided to ensure their nutritional needs are met.

Conclusion

Winter grazing can reduce feeding costs and provide quality nutrition under the right conditions, but success depends on more than just turning animals out. Pasture species diversity, forage maturity, weed presence, and snow cover all play major roles in the nutrients that are available. Since forage quality often declines as a result of fall-to-winter transitioning weather elements, protein, energy, and mineral supplementation are necessary to maintain animal condition, reproductive performance and fleece production. Regularly monitoring both pastures and animal body condition ensures timely adjustments. With proactive management, winter grazing can be a cost-effective, healthy option for llamas and alpacas.

References

Volesky, J. Pasture and Forage Minute: Winter Grazing Pastures. University of Nebraska Lincoln, Institute of Agriculture and Natural Resources. Crop Watch. 2023. Paine, L and Barnett, K. Stockpiling Pasture. University of Wisconsin. Grazer's Notebook. 2005.

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*.

Lama Blood Component Becoming Major Medical Asset

By Ron Baird, Chair, RMLA Research Committee

Editor's Note: Medical research using llama and alpaca nanobodies continues to be in the news. This article from the Fall 2023 Journal offers an understandable explanation of why these specific nanobodies continue to be important.

University researchers late in the last century made a startling discovery: llamas, other camelids, and some shark species produce strange diminutive antibodies one-fourth to one-half the size and perhaps a quarter of the weight of antibodies produced by other creatures. These unique cells are called *single-domain antibodies* or *nanobodies*.

First discovered and identified in camelids, nanobodies are fragments of antibodies, which recognize and bind to cell or virus surface markers called antigens. Whereas human antibodies are composed of molecule chains, only a much smaller single fragment of the camelid antibody is sufficient to recognize viral or bacterial antigens.

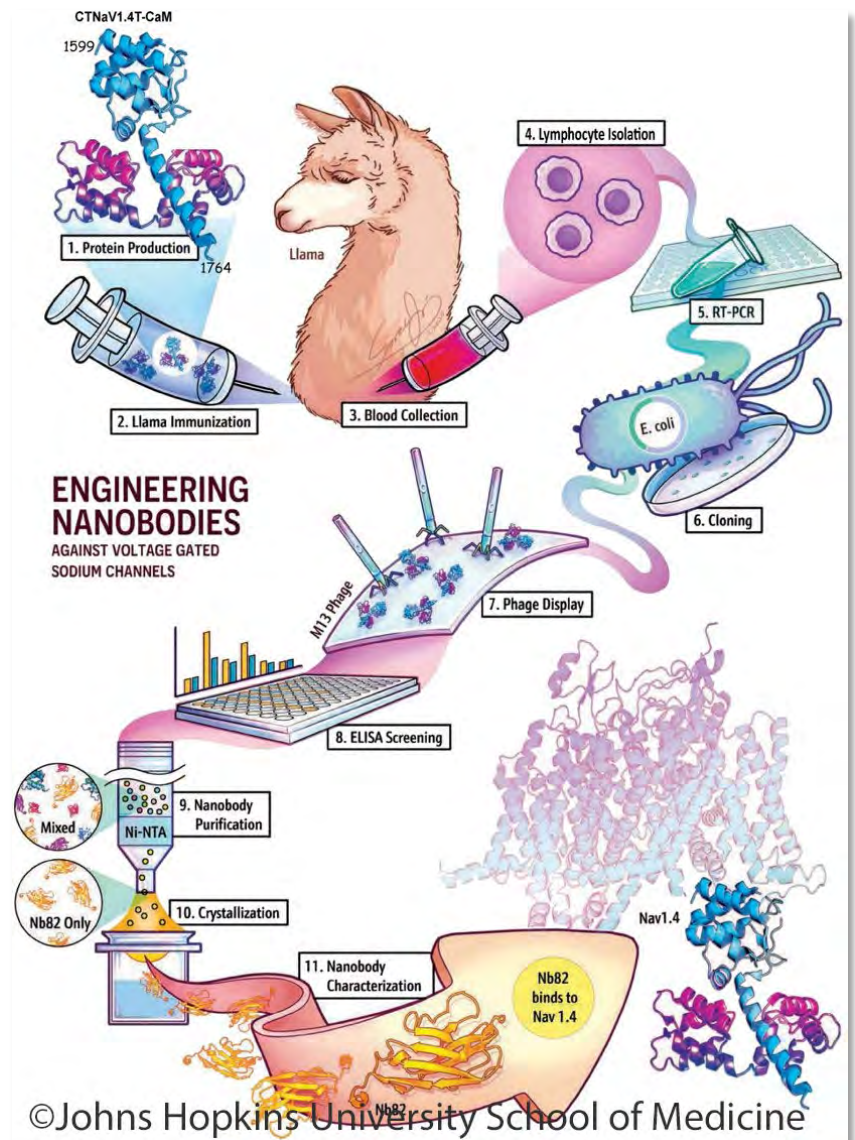
The many ways these particles, found in llama blood, are being applied in medicine hold the promise of major advances in disease detection, treatment, and improved quality of health for humans.

This unique attribute makes llama nanobodies an exciting research and development area. Nearly all articles about this research refer to *llama* nanobodies rather than of camelid. This may be because researchers prefer to draw blood (to extract the antibodies it contains) from docile, easily accessible llamas.

The concept of using antibodies to deliver medicines to diseased or defective organs has become a reality in recent years. But human antibodies, being much larger, have difficulty in many instances penetrating the shells of viral or bacterial cells.

Variouly, medical researchers are employing llama nanobodies in the process of developing systems for medicines to be delivered exclusively to tumors, take stem cells to defective organs in efforts to revitalize them, and other applications.

Perhaps the latest clever utilization of llama nanobodies has been the creation of a machine to detect COVID. Aerosol scientists at Washington University in St. Louis have constructed a toaster-sized machine using llama nanobodies to detect as few as 7 to 35 viral particles of SARS-CoV-2 per cubic meter of air in as little as five minutes. Developed



commercially, this device could be installed to detect the presence of COVID in airports, restaurants, grocery stores, offices, hospitals, and other public areas.

Aerosol scientists at Virginia Tech are known to be working on a detector of their own design. Creative minds will take this new application of llama nanobodies and apply it to the detection of other noxious viruses and bacteria in the future.

The Inca civilization considered llamas to be sacred, using them as messengers to the gods. These exciting medical uses of llamas – and other camelids – truly are making them medical messengers of improved health for humankind!

RESEARCH

Llama-derived nanobodies restore cognition in schizophrenia mouse models

Editor's Note: A press release from *Drug Discovery News*, August 2025

French researchers have [developed](#) a novel therapy using llama-derived nanobodies that cross the blood-brain barrier and significantly improve cognitive deficits in schizophrenia mouse models, after just a single injection.

Schizophrenia is a chronic and debilitating mental illness that affects approximately one percent of the global population and remains a leading cause of disability and premature death. While existing therapies have improved patient outcomes, they are relatively ineffective for negative and cognitive symptoms and are associated with a range of serious side effects. This is partially due to a lack of innovation, with most antipsychotics still only targeting dopamine receptors.

Breaking from the dopamine-centric paradigm, researchers at the Institute of Functional Genomics (CNRS/Inserm/Université de Montpellier) have focused on the glutamatergic system, specifically mGlu2 (metabotropic glutamate receptor 2). Growing evidence links the dysregulation of glutamate signaling to the cognitive and negative symptoms of schizophrenia. Published in *Nature*, the team engineered a bivalent nanobody that acts as a positive allosteric modulator, boosting the activity of mGlu2 receptors without triggering overstimulation.

Crucially, the nanobody was administered peripherally, through injection into a muscle or vein, and still reached the brain in sufficient concentrations to restore cognitive and sensorimotor function in preclinical schizophrenia models. The effect was rapid, and lasted up to seven days, despite only 0.1 percent of the nanobody crossing into the brain.

Compared to conventional treatments such as small molecules and antibodies, nanobodies are small, hydrophilic, and highly selective, with low immunogenicity and better tissue penetration. Their small size allows them to access targets in the brain that full-sized antibodies cannot reach, and their allosteric mechanism preserves natural patterns of receptor activity.

These results offer a proof of concept that nanobody-based agents could serve as a new class of long-acting, brain-penetrant drugs for psychiatric and neurological conditions. With further development, llama-derived nanobodies could open up an entirely new frontier in the treatment of schizophrenia and other neuropsychiatric diseases. While promising, it's worth noting that previous therapies targeting the glutamatergic system have struggled to translate from animal models to human trials.

Nevertheless, with other recent approvals like Cobenfy, the first FDA-approved schizophrenia drug targeting cholinergic rather than dopamine receptors, the field is beginning to shift.

This nanobody approach could complement that progress, enabling new strategies to treat patients based on the specific neurochemical disruptions underlying their symptoms, and moving closer to personalized psychiatric care.

2025 FallamaFest is a Wrap

By Julie Hall

FallamaFest



FallamaFest Llama Show and Event for 2025 is done, and we had an amazing, fun-filled show! For our third year, we had 66 llamas, and 26 participants, including 14 youth! This was also our first year hosting the ALSA Rocky Mountain Regionals at our show.

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 a special thanks to Steve Rohlwing for the complex clerking duties he did without blinking. Thank you also to Ali Bandell, Heather Marley, Kandi Gunning and the other participants who 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 sponsorship, providing insurance and helping us to promote the event. Thank you to the FallamaFest judges, Patti Morgan and Amanda Wick, and our Regional judge, Anna Reese. They were patient and helpful, and we loved having them here!

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



Public participation event on Saturday, 'Fall in Love with a Llama'

We had great weather again this year! We started off on Friday with a clinic hosted by llama judge Rob Knuckles that covered llama halter classes and conformation, and we could tell by the attendance and questions that this was a very informative clinic and a great topic. 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 we added the ALSA Rocky Mountain Regional show. We had a few out-of-state exhibitors this year, and our Colorado llama community showed up and participated! No alpacas participated this year, but we have a plan to get some for next year!

Sanctioned classes this year included Performance, Double Halter, Showmanship, Fleece and Best in Show Female and Best in Show Male. Youth classes included Youth Judging, Showmanship and Performance, with a special FallamaFest Quest class on Saturday and Sunday. 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. New this year was the Adult FallamaFest Quest class.

We brought back our fun class on Friday – Dancing with the FallamaStars; a fun, musical, freeze game, that had everyone dancing and laughing! During the show, the Superintendent handed out special ribbons, like Most Cheerful, Sunny Smile, and others, to keep our fun themes going. We also had the judges hand out special bandanas for llama characteristics, like Most Unique Coloring, or Most Spots.

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. We love sharing these animals with the public.

We had a great show, and everyone had fun! We are already planning for next year, so stay tuned for next year’s dates. More information can be found on the website at www.fallamafest.com.



Halter and Conformation Clinic with Rob Knuckles.



Youth Judging Class



Dancing with the FallamaStars – dancing/freeze game!

Preparing for the Aged Llama

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Just as preparation for birthing begins before a female is bred, preparation for aging begins with proper selection of a llama and continues throughout the animal's life. The goals of caring for an aging llama are to maintain health, comfort, and reproduction for as many years as possible. Beginning with an animal that is healthy, with no obvious problems, is an excellent start.

By selecting a llama with good conformation, you'll have a great chance that the animal will remain sound as it ages as compared to an animal with obvious conformational defects such as crooked legs. Crooked legs do not provide the optimal biomechanics column of support for the animal. The usual forces acting on the joint tissues of a crooked leg tend to cause constant pulling and stretching of the tendons, ligaments and joint capsules supporting the joint. In time, the body responds with increased tissue production in the ligaments, joint capsules and bone - these are the enlarged joints of old age. The result is arthritis, pain and lameness. Some have questioned why importation screening criteria focused so heavily on leg conformation. Firstly, there was concern that poor leg structure might be heritable and passed on to future generations. Secondly and of equal concern, was the likelihood that animals imported with crooked legs would be more likely to have joint problems as they aged.

Fitness and optimal body condition is as important in the llama as it is in the human. Exercise is good for any species; it maintains good bone, tendon, muscle and ligament strength as well as helping with weight management. With a consistent exercise program, bones, tendons and ligaments strengthen along with muscles. Does this conjure up images of llamas on treadmills? That's not really what we're encouraging, but consider the llama's natural environment, llamas move to pasture daily, move around to graze and then move back from pasture to shelter at night. Moreover, some of them go for miles to get to their pastures. And this is only the animals that are not working. Those animals that are working are packing loads, at times for many miles. If your pastures are designed so that your animals can move around, especially up and down some hills, they will at least get some exercise.

This is certainly preferable to the llama that just hangs out waiting for the next serving from the pizza bar. The fat animal of any age is more likely to break down, especially at the fetlocks, than the fit animal. Besides the added stress of obesity on the joints, obesity causes the heart to work harder and can result in poor reproduction and poor milk production.

Body-scoring and keeping track of your animals' weight is very important. Every time you are working with an animal you should perform a body-score assessment and make a note in its record. Minimally, animals should be body-scored every three months and as they age they should be body-scored more frequently. Abrupt changes in weight are always a concern. Separating the fat animals and putting them on a weight reduction plan is paramount. Methods of weight reduction for an obese animal (body score of 5/5) should be developed in consultation with your veterinarian. Rapid weight reduction can precipitate metabolic problems such as hepatic lipidosis and can be very dangerous for the animal. As the weight loss experts tell us, slow and steady weight reduction in an organized program is the way to go.



Actually, more common in the geriatric population, is the tendency towards weight loss. Of 36 llamas in a geriatric study (defined as over 12 years old), 55 percent were thin, with 10 being emaciated (body score of 1). Thirty-two percent were optimal weight, 6.5 percent were fat (body score of 4), and 6.5 percent were obese (body score of 5). Factors that may contribute to weight loss in an older animal are bad teeth, decreasing ability to absorb nutrients, shifts in social status, and excessive milk production. It is especially important to watch for changes in the social status of aging animals. The female that was always first to the feed may get pushed out as she ages. Additionally, she may have some arthritis that causes her to be slower in grazing and moving to the feed.

Assessment of the teeth should be done more frequently as the animal ages. Dental health directly influences the overall health of the llama. Good teeth throughout life will maximize the animal's ability to chew its food properly and will help with proper absorption of nutrients. Some of the geriatric llamas in the previously mentioned study had level molar arcades. This is optimal. Admittedly, the teeth were worn flat so they were not grinding as efficiently as they did when they were younger, but the animal could still chew freely. A llama that has large hooks and severe wave pattern of the cheek teeth is not going to be able to chew freely. This condition causes the animal to chew more slowly and hold balls of feed in the cheeks. Some causes of wave-mouth in older animals are so bad that no amount of corrective dentistry can come close to restoration of normal chewing.

Ideally, the llama's incisor teeth occlude with the dental pad through its life. The animal should not need to have its incisor teeth trimmed. However, if you do have an animal with incisor teeth protruding beyond the dental pad, it is very important to regularly trim to keep the teeth as close to the normal occlusion as possible. Do not wait until teeth are protruding over an inch or more before trimming. Proper occlusion of the incisor teeth and dental pad allows for ease of food intake and allows molar teeth to meet in a normal manner and wear normally. Unseen, uneven wear of molar teeth will cause chewing problems in the long term. The molar teeth should be checked regularly, starting at above age five years of age. Looking at your llama's molar teeth is not an easy task. Although you can easily check the incisors, fighting teeth and premolars, llamas' mouths generally do not open far enough to see the molar teeth without the use of sedation, a small flashlight, and veterinary assistance.

Tooth root abscesses are another concern. Anytime you're working with your llama you should run your hands along the lower jaw to make certain there is no expansion of the jaw bone which might indicate a molar abscess. In addition,



a sore open area on the jaw that looks like a wound may actually be a drain for an abscessed tooth. If you have any questions about the possibility of a tooth root abscess, you should check with your veterinarian. If a decision is made to remove the tooth, remember that the opposing tooth from the other jaw will not wear normally and will periodically have to be filed as the other molar teeth wear. That opposing tooth can eventually bump the bare gum where the tooth was removed. The pain could prevent the llama from eating well. Animals with minimal teeth may need an entire dietary supplement of pellets or feeds developed for older animals. These feeds may include a liquid gruel that is used with

animals whose teeth are essentially all gone. Again, we stress that preparation for aging begins with selection of the animal and continues with management throughout the animal's life.

With aging, digestive processes change and efficient absorption of nutrients decreases. If you have an older animal that is losing weight and the teeth are okay, there are no social problems, the animal still moves well, parasitism is not a problem, and she is not nursing a cria, consider that she may not be absorbing nutrients as well as she used to. Boosting the nutrition of an aging animal can best be accomplished initially by increasing the carbohydrates (i.e. grains) in the diet. If the animal does not pick up weight, your veterinarian should evaluate the animal and create a plan for weight gain.

Reproduction in the aging llama can become more problematic. Some females will continue to produce a cria each year without difficulty. For example, one geriatric produced 19 cria in her 22 years! She still had good leg conformation and good teeth, but she was no longer maintaining a healthy weight. She was retired from breeding. Some females may conceive but then lose the fetus early on, and some may be such good milkers that nursing a cria drags them too far down in body condition. Some people choose to spread out the birthing interval in older females to allow them to recover body weight before the next cria. There can be issues with lowered fertility during heavy milking, so a very long birthing interval is a possibility. Early weaning of a good strong cria is also something to consider. Remember that if you have an animal with a dystocia at any time in its life, damage to the reproductive tract can end the female's ability to have crias. Always be aware if you are assisting a delivery that the reproductive tract of the llama is relatively susceptible to damage. Recall the adage, "Do no harm," and get help if you need it.

Some features of old age cannot be prevented but certainly must be considered when managing older animals. Many older llamas develop cataracts (opacities in the lens of the eye). If the cataracts become dense, the animal can have trouble seeing. Like many elderly people, predictable patterns and familiar surroundings are more important to the older llama. Moving an elderly llama to a new pasture can cause distress that may be exacerbated if the pasture mates are unknown

animals. As animals age, fiber regrowth will slow, and therefore frequency of shearing should be decreased, or shearing should be stopped. Some older animals will have such a light coat that they'll become extremely cold sensitive. Blanketing these animals in the winter will help. The older llama may also be less tolerant of high environmental temperatures and should be watched carefully on those hot summer days. It is also important to continue to manage for parasite control. Older animals' immune systems don't function as well as when they were younger. Subsequently, they may have increasing problems with parasites as compared to their middle-aged comrades. Finally, remember to keep the toenails trimmed so the toes are in proper alignment. The toe joints will stay in better shape over time.

As with any aging animal, note careful attention to the condition, attitude and overall health is important. Watch for changes in behavior, eating habits, and mobility. Check body condition, teeth, and parasite load more frequently than you did when they were younger. Above all, begin with sound, well-conformed, healthy young animals and practice good management with them throughout their lives.



Stand Still, Please

By Marty McGee Bennett, CameliDynamics.com

How is the best way to teach a young llama to stand still, especially during a showmanship class? First this a central question that is intertwined with almost everything we do with our animals.

The real question is, “Why won’t my alpaca or llama stand?” Llamas and alpacas know how to stand still, they do it all the time. So you really don’t have to teach the animal how to do *stand*, you need to make it safe for the animal to stand still instead of doing what he thinks is the safer thing under the circumstances—and that is to run away.

If the animal is going to stand in a show ring that means teaching your animal that it is safe to have a human approach him and perhaps touch him. This is a huge leap of faith for an animal that basically runs for a living. It is like running INTO a burning building.

Changing the way you do things at home on a regular basis is the best way to create a sense of safety when you head to the show ring. If you are in the habit of using the corner-grab-hold approach to catching, getting your llama to stand still in the show ring is going to be extremely difficult. Think about it... if you, the person with whom your llama or alpaca has the most familiarity, has to resort to trapping him in a corner to catch him at home when there are no strange lights, people, and noises, it will be exponentially harder at a show. How you catch your animals at home is the place for you to begin to make changes. If you are one of the llama or alpaca folks that use a catch pen for catching your animals, then good for you! If you are not using a catch pen consistently, that is the first thing to change.



To get more bang for your buck in the catch pen, approach your llama from behind his eye and allow him to move around the pen until he comes to a stop. Catching a llama or alpaca using a corner means that the animal learns that when a human approaches the thing you do is evade until you **can’t** and then you must accept being caught.

We typically corner and hold or tie our llamas or alpacas still for most of the interactions we have with them. This provides very little opportunity for them to develop self-control. There are no corners in the show ring. When the ring steward and judge approach your animal his conditioned response to move away kicks in. The animal will try to move away and when you hold him still, he will get frightened and try even harder to get away and this is the reason he won’t stand.

Allowing your animal to move away from you in the confines of the catch pen until he stops on his own teaches your animal that it is possible to for him to override his instinctive flight response and remain standing, which sets the stage for improved behavior in the show ring. You cannot get good at something unless you have an opportunity to try it and practice it. Teaching your llama to stop and stand on his own each time you catch him is a great investment for future success.

Once your llama student has come to a stop, approach a bit closer and if he remains standing, approach a bit more. If he indicates he is going to move, then back up. If he remains standing move a bit closer. Repeat this dance until you are standing next to the animal.

This can require a lot of patience especially if your animal student is very frightened. I use a wand and a rope (see photo) to help speed this process up and to avoid frustration for both animal and handler, but some version of teaching your animal to stand without being cornered as you approach is crucial to your success in the show ring.

Once you have mastered standing still in the catch pen, you can stage some exercises that mimic what goes on in a show. Enlist the aid of some friends to approach and retreat as you stand with your llama on a halter and lead in a very small area; a catch pen is not too small, next in a slightly larger area. Always add new challenges incrementally and back up to what is easier if your animal student is having trouble accepting the new step.



Don't move on to the next step unless your llama or alpaca is comfortable with the previous step. IT IS NEVER THE ANIMAL'S FAULT IF HE CANNOT DO WHAT YOU ASK. It is your job to set the animal up for success by carefully adding small challenges, one at a time. It is fine to use food as a training aid for teaching your animal to stand as other people walk up to him. You can use it as a distraction and incentive to stand and help him relax and breathe. Make sure that you communicate with your helpers so they understand that they only get closer when you give the signal that it is OK with the animal.

Teach your llama that when someone walks up to him in a field, in a catch pen or in the barn that there is nothing to worry about, that at least 95% of the time good things will happen: a treat will be offered, he might have a walk or a fun game with a clicker.

Standing still is very helpful for many situations on your ranch: assessing the animal's health and condition, taking a perfect photo, vet checks,

examining eyes, ears, body condition and shearing. Typically the llama or alpaca is tied or restrained in these situations. Wouldn't it be nice if, in these situations, the alpaca or llama could practice learning self-control and stand in balance? Relying on force for routine handling can seem quicker but it makes teaching your animal to stand in other circumstances much harder!

This short article outlines the very basics, but skipping the foundation means that you may not be able to get your animal to stand or that the learning process will take a LOT longer.

For more information about understanding what motivates a camelid I recommend my book *The Camelid Companion* and my online courses. You can find out more about both at www.camelidynamics.com.

Reminisces on Volunteering

By Ron and Lougene Baird

Scrolling through the draft of this issue of The Journal of the RMLA, we find ourselves filled with both sadness and hope.

Sadness that the Journal well may disappear with this issue. It definitely has served RMLA members, practicing veterinarians, and other llama organizations for many years evolving from two mimeographed sheets into what it is today.

Volunteering takes time, so does NOT doing anything. Not doing anything was not in the minds of the 26 Colorado llama owners who convened a 1981 meeting in Monument, Colorado. (Alpacas hadn't yet begun to be of interest.) The owners were eager to introduce these wonderful creatures to others, promote their uses, and share their sometimes hard-gained knowledge.

Rocky Mountain Llama Association was founded at that meeting.

We personally owe a huge debt of gratitude to the many members who willingly shared their knowledge and experiences with us as we entered the llama community totally uneducated. We both have volunteered for many years in many different positions to educate, serve, and promote these wonderful animals. THIS is what RMLA is all about – sharing knowledge.

RMLA is powered by volunteers. Our hope is: this great Journal and organization will continue to grow, educate, and expand under the guidance and volunteerism of dedicated RMLA members.



Joyful flowers in Juneau, Alaska