

Summer 2023

# *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<sup>®</sup> 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.

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**Cover Photo:** Emma Hunt feeding a cookie to Winter. See page 28

**Back Photo:** Afrika and friend. See page 29

## From The Editor

Kathy Stanko, Editor, [rmlaeditor@gmail.com](mailto:rmlaeditor@gmail.com)

I am always amazed how my llamas look after shearing: a few too thin, some over-conditioned (the polite term for fat), and a few just right. Throughout the winter, we check their body condition scores and their weights, but it is when the fiber comes off that I really know where we are.

To gain a better understanding of what is in your animals' food and how to feed, a reprint of Dr. Robert Callan's lengthy article, *Feeding and Health Management*, from a 2014 Journal is the lead-off article of this issue.

Libraries are a great place to hold educational events. Sandy Schilling's event, Explaining the Differences between Llamas and Alpacas, was held at her local library. Similarly, the Grand Junction, Colorado library hosted a fiber event for our local fiber guild. In both cases, the libraries developed flyers and handled the publicity. Consider having an event at your local library. After all, a library is also all about education.

Finally, a huge thank you to Barb Hance, long-time life member, for volunteering to go through all the old (back to the 1980s) newsletters and Journals to find the gems. Over time, these gems will be re-published in the Journal and/or posted on the website.

Thank you to everyone who has submitted an article for this Journal and to all of you who read and learn from the many topics included.



## 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     |
| Winter | November 30         | December 31      |

| Ad Type       | Width x Height | Member Rate | Non-Member |
|---------------|----------------|-------------|------------|
| Business Card | 3.5"x2"        | \$ 7        | \$ 15      |
| ¼ page horiz. | 7.5"x2"        | \$ 12       | \$ 24      |
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| Half Page     | 7.5" x 5"      | \$ 24       | \$ 48      |
| Full Page     | 7.5"x 10"      | \$ 39       | \$ 78      |

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

### To submit articles, ads or photo:

- All submissions go to [rmlaeditor@gmail.com](mailto:rmlaeditor@gmail.com)
- Documents in MS Word format
- Camera ready ads as a pdf or jpg file. **NOTE:** What you send is what we publish.
- Images/photos as .jpeg (.jpg) or .tiff files. Photo from a camera or phone are sufficient. Please check the background and lighting. RMLA will only crop for fit and/or enhance the lighting.

### Instructions for advertising payment:

You may pay for your ad at [RMLA.com](http://RMLA.com) using a credit card. Payment and ad copy must be received prior to submission deadline. See the table above for dates.

## President's Message

Summer is just beautiful. Sounds as if most of you have had enough moisture to support the healthy growth of pasture grasses and hay fields. Here in Arizona, we have a few forest fires smoldering as controlled burns are underway. Life in the West!

A couple months ago, Kathy and I spent some time adding a few historical documents to RMLA.com. We invite you to look at these. Again, these address the foundation of RMLA. In the passing of days as the years go by, it is sometimes good to pause and think about our history. We have already covered the first gathering of llama owners in Monument, Colorado.

So, what was next! After the first few years following the gathering, many members worked toward making RMLA an outstanding, dynamic organization. Take some time to review what we lovingly refer to as our Founding Documents.

Go to RMLA.com. On the home page in the blue header at the top, hover over RMLA then select "RMLA Founding Documents" from the drop-down menu. In the lower left corner, click on RMLA Founding Documents. These docs are so interesting to read.

- Doc #1 is the filing of RMLA Articles of Incorporation with the Colorado Secretary of State. The SoS received and approved the filing on October 5, 1983! On the same day! Notice the original name of the organization. Look at who the officers were at the time. I understand the only living person who signed this document is Wally White.
- Doc #2 – One of our most important documents – a letter from the Internal Revenue Service recognizing "Rocky Mountain Llama Association" as a 501 (c) 5 tax exempt corporation. Looking at the application records, obtaining this status took about 18 months.
- Doc #3 – Is the Certificate of Fact of Good Standing issued by the Secretary State of Colorado. Each year, RMLA is required to file a Periodic Report with that office. Once done and the Secretary of State is content with RMLA and all the filings, the Secretary of State awards RMLA the Certificate.

Historical filings are a matter of public record and you, too, may see all the RMLA filings since 1983 on the Colorado Secretary of State website.

So, you have read that the founding documents reflect the name as Rocky Mountain Llama Association. When do you think the organization changed its name? I would like to hear what you think...or know.

Have a wonderful summer. Enjoy and have lots of fun with family, friends, and critters. Leave the boring stuff like these records up to us. If you want to get into the business side of RMLA, it is election time. Toss your name in the hat to have a real different kind of fun.

Be safe, be well and be happy, Lougene.

## Welcome New Members!

RMLA is always growing! We welcome the following new members:

Erin Holtkamp & Greg Meuffels, Glencoe, MN  
Ron Dodd, Nampa, ID  
Dylan Thomas & Alexandra Thompson, Loveland, CO  
George Schneider. Parker, CO

### RMLA EVENTS

## Upcoming RMLA Events

By Mary Wickman, Events Chair

**Lama Lunacy:** July 29, 2023, Fairplay, CO. A family fun free event! Children and adults can lead an alpaca or llama through an easy obstacle course while learning about these amazing animals. For more information, contact Mary Wickman, [mwickman1@gmail.com](mailto:mwickman1@gmail.com)

**FallamaFest Llama Show and Event:** September 29 – October 1, 2023. Douglas County Fairgrounds, Castle Rock, CO. An LLR show plus educational clinics on llama health and showing. Contact Julie Hall for more information: [jmhbluehorse@yahoo.com](mailto:jmhbluehorse@yahoo.com) or 303-910-2134. See article on page 15.

### Save the Date:

**Pacabuddies Fall Event:** September 9-10, 2023, Douglas County Fairgrounds, Castle Rock, CO. For more information go to [www.pacabuddies.org](http://www.pacabuddies.org) or contact Patti Jones at [pacabuddies@gmail.com](mailto:pacabuddies@gmail.com)

**Higher Ground Fair:** September 15 - 17, 2023. Laramie, WY. For more information, contact Gayle Woodsum, [gayle@highergroundfair.org](mailto:gayle@highergroundfair.org).

### HEALTH MANAGEMENT

## Feeding and Health Management

By Robert Callan, DVM, MS, PhD, Colorado State University Veterinary Hospital

*Reprinted from the Spring 2014 issue of the Journal of RMLA. Dr. Callan is now retired and living the good life in Montana.*

Hello Spring! In this installment of Ask the CSU Vet Team we are going to take a comprehensive look at feeding and health management. Thank you, Dr. Callan, for putting all of this together!

### General Nutritional Recommendations

The two most fundamental nutritional requirements are energy and crude protein. While there are several ways to measure energy content of a feed, one of the most useful is Total Digestible Nutrients (TDN). TDN provides an overall estimate of the available energy density of the feed and is reported as a percentage; the higher the number, the higher the energy density of the feed. Crude protein is an assessment of the available protein content of the feed and is also reported as a percentage with higher numbers indicating higher protein content. Maintenance energy and protein requirements are typically met by feeding grass hay with minimal additional supplementation.

Like other animals, llamas and alpacas require extra energy and protein intake during high production stages (growth, lactation, and late gestation) or high activity (packing). They may also need additional energy and protein during cold weather. The additional energy needed can be as much as 50% of their maintenance requirements when multiple factors are involved. The problem is that the total intake in camelids is limited to about 2% of their body weight per day because of slow gastric emptying. Thus, YOU MUST PROVIDE FEEDS WITH HIGHER DIGESTIBLE ENERGY (TDN) WHEN FACED WITH INCREASED ENERGY DEMANDS. See Table 1.

Grass hay does not have sufficient digestible energy (TDN) and crude protein to support many animals during times of high energy needs. Thus, substitution of alfalfa hay (high TDN and higher protein), pelleted feeds, or other concentrates for some or all of the grass hay is often required to maintain weight during high production stages, cold weather periods, or for animals that are in poor body condition and need to gain weight. If you have a nutritional analysis of your grass hay, alfalfa hay, or other supplements, your veterinarian or nutritionist can work with you to identify how much of each feed is needed to meet the basic energy and crude protein requirements. The CSU VTH Livestock Medicine and Surgery service is happy to work with your veterinarian to provide this assessment for you.

**Table 1**

Camelid TDN and Protein requirements in Camelids for different stages of production based on 1.5-2.0% Body Weight (BW) dry matter intake per day.

| Feeding Plan           | Physiologic States                             | TDN    | Crude Protein |
|------------------------|--|--------|---------------|
| <b>Sub-Maintenance</b> | Obese Animals                                  | 40-50% | 8-9%          |
| <b>Maintenance</b>     | Males > 1year                                  | 50-60% | 8-10%         |
|                        | Breeding Females<br>Pregnant Female 1-8 months |        |               |
| <b>Moderate</b>        | Pregnant Female 9-11 months                    | 55-70% | 10-12%        |
| <b>High</b>            | Weanlings up to 1 ½ years                      | 55-60% | 14-16%        |
|                        | Lactation up to 4 months                       | 60-70% | 12-14%        |

Adapted From: Van Saun RJ. Nutritional requirements and assessing nutritional status in camelids. Veterinary Clinics of North America, Food Animal Practice. 25 (2009) 265-279.

Normal llamas and alpacas will consume 1.5% to 2% of their body weight in dry matter intake per day. For a typical adult llama (350 lb) this is about 5 to 7 lb and for a typical adult alpaca (150 lb), this is about 2.5 to 3.0 pounds of feed per day. Generally, at least ¾ of the total feed (by weight) should be fresh forage or hay and no more than ¼ should be llama/alpaca pellets or chow, concentrate or other supplement (grain mix, COB, etc.). While camelid pellets can be used at higher levels, this is not necessary and is often more costly than supplementing with a higher quality grass or alfalfa hay.

Mineral levels in fresh forages and hay are dependent on mineral availability in the soil and vary considerably by geographic location. Llama and alpaca chow or pellets and other processed feeds can be used to supplement vitamins and minerals in the ration, but the levels in these supplements may not always meet total requirements, particularly for vitamin E.

Vitamin-Mineral supplements (vitamin-mineral salts) are often necessary to provide the optimal nutritional support. These supplements should be formulated for your particular area and feeds. For example, a vitamin-mineral supplement designed for the Pacific Northwest is not likely to be appropriately balanced for animals in the Rocky Mountain area. The best way to provide the most balanced supplement is perform a nutritional analysis of your hay and formulate a mineral mix to best complement that hay. Otherwise, work with your feed outlet and select a mineral



that fits the average mineral content of hay from your area. General mineral guidelines for llamas and alpacas are provided in Table 2.

**Table 2:** General Nutritional Guidelines for Camelids.

| <b>Nutrient</b>      | <b>Estimated Maintenance Requirement Range</b> |
|----------------------|--|
| <b>PROTEIN</b>       |  |
| Crude Protein (%DM)  | See Table 1                                    |
|                      |  |
| <b>ENERGY</b>        |  |
| NDF (%DM)            | 30-60  |
| ADF (%DM)            | 25-45  |
| TDN (%DM)            | See Table 1                                    |
|                      |  |
| <b>MACROMINERALS</b> |  |
| Calcium (%DM)        | 0.2-1.5  |
| Phosphorus (%DM)     | 0.1-0.6  |
| Magnesium (%DM)      | 0.1-0.5  |
| Potassium (%DM)      | 0.5-3.0  |
| Sodium (%DM)         | 0.06-2.0                                       |
|                      |  |
| <b>MICROMINERALS</b> |  |
| Iron (PPM)           | 30-100   |
| Manganese (PPM)      | 20-100   |
| Zinc (PPM)           | 20-50  |
| Copper (PPM)         | 5-15   |
| Molybdenum (PPM)     | 0.5-1.0  |
| Selenium (PPM)       | 0.2-0.3  |
|                      |  |
| <b>VITAMINS</b>      |  |
| Vitamin E (IU/kg)    | 500-1000                                       |

\*Specific nutrient requirements in camelids are not well established and these maintenance ranges should only be used as initial guidelines. Consult with your veterinarian or nutritionist for specific requirements based on feed source, production status, and the use of the animal.

Dry hay generally does not contain sufficient vitamin E to support optimum levels in llamas and alpacas. This is particularly true in camelids that do not have regular access to fresh pasture forages. For animals on a predominantly dry forage diet, vitamin-mineral mixes should contain at least 5,000 to 10,000 IU Vitamin E per pound.

One of the problems with vitamin-mineral supplements is that they may have poor palatability and this will affect consumption. In fact, you may find that some animals like the supplement but others do not. One way to improve consistency and overall consumption of your vitamin-mineral mix across all of your animals is to mix it with bran or raw wheat germ (wheat germ can be purchased in 50 lb bags). You can start with a 1:1 mix (by volume) and as the animals grow accustomed to the mix, you can move to 2 parts mineral mix and 1 part bran or wheat germ. You should still evaluate total mineral mix consumption and determine if the animals on average are consuming their recommended amount per day.

### Hay Forage Analysis

A Hay Forage Analysis is the key information you need to formulate the best nutrition plan for your llamas and alpacas.

Forage analysis provides the nutrient content of the hay that you are feeding to your animals. Forage nutrient content varies between seasons, locations, cuttings, and storage conditions. By knowing the nutrient content of the hay, you can better manage the nutrition of your animals for better health and productivity.

The most important aspect of collecting a hay sample for forage analysis is obtaining a representative sample of the entire lot of hay. This means randomly sampling several bales and obtaining a representative sample from each bale. While it is possible to simply grab some hay from several bales, this often results in a composite sample that is not representative of the hay because of over representing stems versus leaves. This is particularly true with alfalfa or alfalfa-mix hays. In addition, hand grab samples tend to collect forage from the exterior of the bale where the nutrient content of the forage may be affected by exposure to the environment (sun, rain).

**Core Samples** are the preferred method of sampling hay for forage nutrient analysis. Quality hay core probes are made of a sturdy metal tube with a sharpened or serrated end to cut through the hay when obtaining the core. The length of the probe should be at least 14 inches and 18 to 24 inches is preferred. The probe diameter should be between 3/8 and 3/4 inches. This will provide about 1/2 pound of hay from 20 samples. The purpose is to collect a representative sample of stems and leaves.

Follow these steps to obtain a quality sample of hay for forage analysis.

- Sample each “lot” or cutting of hay separately.
- Obtain core samples from at least 20 bales selected at random throughout the entire lot. If there are less than 20 bales, take multiple cores from all of the bales until you have 20 core samples.
- Collect core samples from the side of the bale that is most resistant to puncture. For square bales, sample from the small ends. For round bales, sample from the side.
- Drive the entire probe into each bale.
- Empty the core chamber into the collection canister (multi-bore probes) or into your collection bag (single-bore probes) between each bale.
- Collect the sample into a 1 quart Ziploc bag. Squeeze out the air and seal the bag.
- Label the bag accordingly.
- Send the sample to the lab the same day as collection or as soon as possible.

Hay core probes are available from multiple sources. Information on several quality hay core probes is available at the National Forage Testing Association (NFTA) website (<http://www.foragetesting.org/>). There are many laboratories across the country that perform forage nutrient analysis. The first way to ensure a quality analysis is to utilize a laboratory that is certified by NFTA. Certification means that this laboratory meets specific quality testing standards and demonstrates proficiency and accuracy for reporting percent dry matter (DM), crude protein (CP), acid detergent fiber (ADF), and neutral detergent fiber (NDF). A list of certified labs can be obtained from the NFTA website.

There are two general methods typically used for forage nutrient analysis, **Near Infrared Reflectance Spectroscopy (NIR or NIRS)**, and **Wet Chemistry**. While NIR analysis is less expensive, this method is not considered as accurate as wet chemistry. NIR may be suitable for determining basic nutrient analysis including DM, CP, ADF, and NDF; it is often not suitable for accurate determination of minerals.

**What do the forage analysis results mean?** The most basic forage nutrient analysis evaluates factors that help estimate intake, digestibility, available energy, and available protein in the forage. The results are generally reported on a dry matter basis so that forages can be appropriately compared independent of their moisture content. Additional tests can also be performed to determine mineral content and sometimes vitamin content of the forage.

- **Moisture:** The percent of the forage that is water. For hay, this generally runs between 5-15%. Moisture dilutes out the nutrient value of forage on an as fed basis.

- **Dry Matter (DM):** The percent of the forage that is not water. For hay, this is typically around 87-95%. Feeds with a lower DM require higher as fed intake to deliver the same amount of nutrients.
- **Crude Protein (CP):** An estimate of the protein content based on total nitrogen of the feed and reported as a percentage. A normal range in hay is 6 to 20% on a DM basis.
- **Neutral Detergent Fiber (NDF):** Measure of the fiber in the feed consisting of hemicelluloses, cellulose, and lignin. These are the carbohydrates that make up the cell wall and structure of the plant material. NDF predicts voluntary intake. As NDF increases, there is more fiber to the forage which takes longer to digest and thus decreases voluntary intake. A normal range in hay is 30 to 60% on a DM basis.
- **Acid Detergent Fiber (ADF):** A measure of the cellulose and lignin and leaves out the more digestible hemicelluloses. ADF is a predictor of digestibility of the hay. As ADF increases, digestibility decreases. A normal range in hay is 25 to 45% on a DM basis.
- **Total Digestible Nutrients (TDN):** TDN provides an overall estimate of the available energy density of the feed. It is the sum of the digestible protein, digestible NSC, digestible NDF, and 2.25 times the digestible fat.
- **Relative Feed Value (RFV):** A calculated ranking of the feed based on digestibility (ADF) and intake (NDF). The higher the RFV, the better the forage. RFV is primarily used for evaluating alfalfa hay for dairy cattle. It will routinely give a low value for grass hays and does not accurately reflect their feed value. This is because grass hays tend to have a higher NDF (limits total feed intake) than alfalfa but at the same time, they have a lower lignin concentration and thus their fiber is more digestible. What this does in the RFV calculation is under estimate feed intake and energy value of grass hay, thus under estimating the RFV relative to alfalfa hay.
- **Minerals:** Minerals are critical for the structure and function of tissues in the body. Too little (deficiency) or too much (toxicity) of these minerals can result in poor growth, production, or clinical disease. Mineral content of

## Save the Date


### for Llamas and Alpacas at the Higher Ground Fair!

September 15 - 17, 2023  
Wyoming Territorial Prison State Historic Site  
Laramie, Wyoming

Where Llamas, History, and Royalty Meet  
for fun, competition, learning, and a unique  
celebration of the best of the  
Rocky Mountain Region.

See what awaits you this year!  
[highergroundfair.org](http://highergroundfair.org)

For more information, contact Gayle Woodsum  
[gayle@highergroundfair.org](mailto:gayle@highergroundfair.org) • 307.399.3815

A Parade-a-Day  
at the Higher Ground Fair!







*Miss Wyoming met  
her first llama at the  
Higher Ground Fair, 2022*

### Show Judges

~

*Rob Knuckles*  
Llama, Alpaca, Youth  
ALSA Performance &  
Fun Classes

~

*Cindy Ruckman*  
ALSA & Open  
Fleece, Walking &  
Fiber Products

feed can vary greatly with geographic area. It is good to evaluate some of the important minerals in a feed sample to help select an appropriate supplementation to match with the hay that you are feeding. Minerals are typically reported as parts per million (ppm, mg/kg).

**How can I use this information?** The most important part of forage nutrient analysis is the energy and protein content of the hay. This can be used to help determine what production groups of animals will benefit most from this hay and what production groups will need additional energy or protein supplementation. (See Table 1 above)

If your hay has a protein or TDN value below the recommendation for the production group, then you will want to either use different hay for that group of animals, or consider supplementing those animals with another high TDN or protein hay or supplement, or both. Feeding the proper hay to specific production groups to meet their dietary needs will help prevent both low and high body condition. It can also save you in feed costs so that you know what animals specifically need additional supplementation rather than always feeding these supplements to all animals. Work with your veterinarian or nutritionist to identify how much of each feed is needed to meet the basic energy and crude protein requirements. The CSU VTH Livestock Medicine and Surgery service can assist your veterinarian to provide this assessment for you.

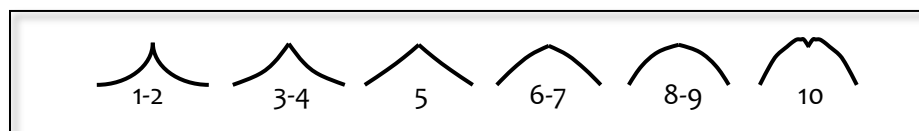
Also remember that energy needs increase during times of higher physical activity or cold temperatures (winter). So, hay that may be doing just fine during the summer months may not provide sufficient nutrition for an animal in the winter.

After balancing your feeding for energy and protein, you can then take a look at providing optimum vitamins and minerals. If the hay is providing sufficient energy and protein levels, then additional vitamins and minerals can be provided with a vitamin-mineral mix. Many of these are commercially available and you can utilize your hay nutrient analysis to determine what minerals may be most important in the supplement. Intake of mineral-vitamin mixes may not be consistent between animals due to palatability.

### Body Condition Scoring

Body condition scoring is an excellent adjunct to body weight to help determine whether adequate energy requirements are being met. A variety of systems have been described for determining the body condition score (BCS) for llamas and alpacas. A simple method is to evaluate the “fullness” of muscle and tissue mass along the lumbar vertebrae (back area just in front of the pelvis). It is important to actually palpate the tissues rather than just visually assess the animal because fleece can make the animal appear more conditioned than it is.

To evaluate an animal, place your hands along the sides of the lumbar vertebrae and feel to see if the angle is flat (BCS = 5), dished in or concave (BCS < 5), or rounded out and convex (BCS > 5) (see figure below).



Optimal body condition is between 5 and 7. Animals with a BCS < 4 may be immunosuppressed and are more susceptible to infectious diseases. They require special feeding with more energy (higher TDN) to help regain optimal body condition. Animals with a BCS > 7 are prone to immunosuppression and additional infectious and metabolic diseases and may also have a higher risk of dystocia due to pelvic fat.

## **Special Feeding Management Considerations**

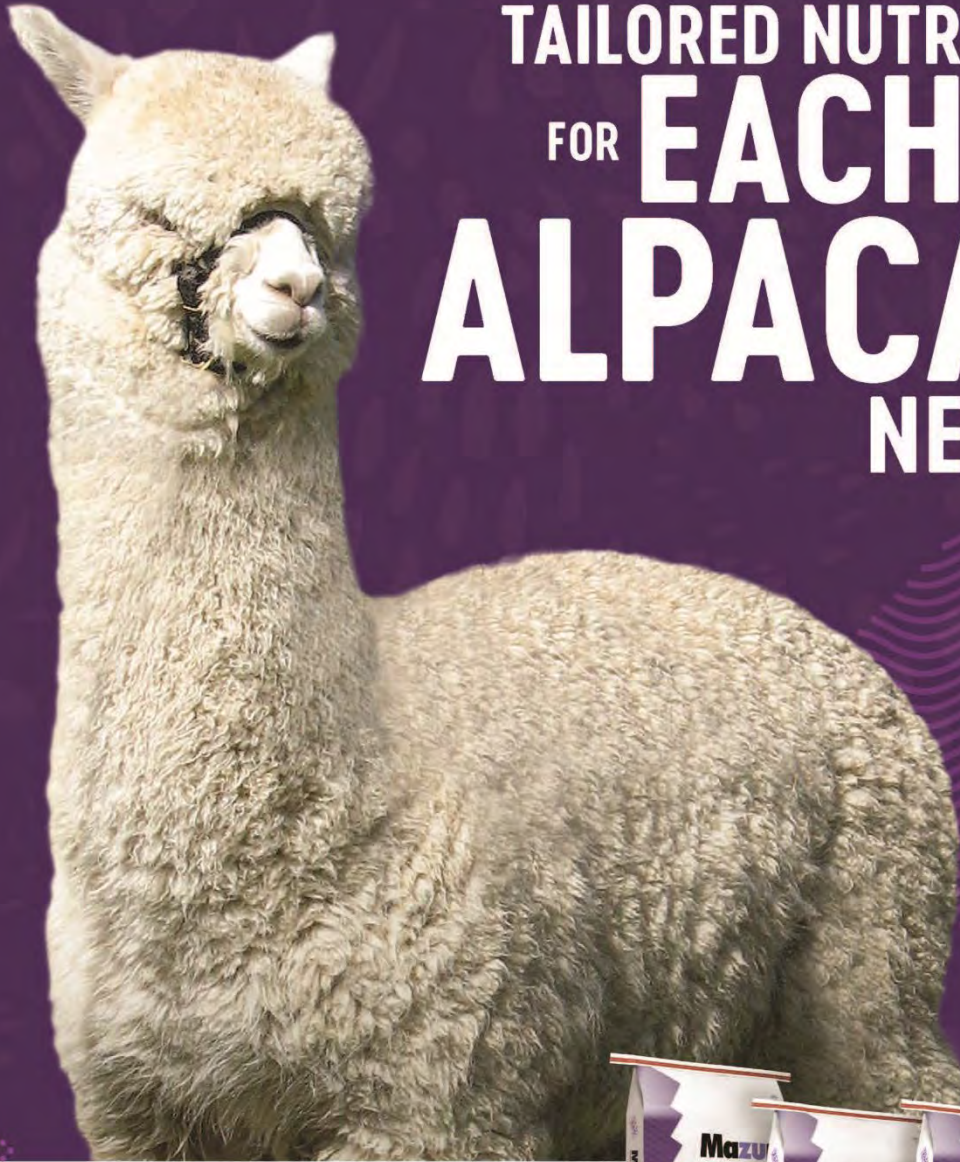
### **Minimizing the Impact of Cold Weather:**

- Provide shelter from the wind.
- Provide a bedded area for the animals to lie down in. Straw bedding at least 6 inches deep will provide insulation and help protect them losing heat when cushed. You can also use the left over stems of the alfalfa fed to the animals for bedding.
- Utilize llama/alpaca blankets for animals with a BCS<4 if possible. If an animal is blanketed, assess daily to ensure that the animal is not becoming too warm or developing sores associated with the blanket.

### **Additional Recommendations:**

1. Evaluate the BCS of all animals to identify those animals with a BCS<4 or >7. Move these animals into separate pens for special feeding.
2. Feeding for animals with a BCS<4
  - Provide 2 separate feed bunk areas with at least 1 linear foot of space per animal in the pen.
  - Continue to feed your concentrate supplement as you are currently feeding.
  - Initially, feed a high-quality grass hay in one feed bunk and a high-quality alfalfa hay in the other bunk.
  - Weigh the amount of hay fed each day and weigh the amount of feed left over the next day. Calculate whether the animals are consuming at least 1.5 to 2% of their body weight of dry feed per head per day. For the alfalfa, remove the remaining stems (at least every two days) and use these to supplement the straw bedding (see above).
  - After the first week, re-weigh the animals and see if they are gaining weight. If not, increase the proportion of alfalfa fed to the animals by 25%. Recheck again in another week and if they are still not gaining weight, feed only alfalfa hay.
  - Provide a free choice vitamin-mineral salt. This salt should have at least 5000 ppm Vitamin E. In order to increase palatability and thus increase the intake, you can mix the Vitamin-Mineral salt with raw wheat germ at a 1:1 ratio. Try to measure the intake of this mixture to know how much the animals are consuming.
  - Continue to body condition score the animals at least every two weeks. Once the animals reach a BCS of about 5, move them into the general maintenance pen unless they are in a production status that will continue to require additional energy.
  - You may also want to include animals with high energy needs (lactating or late pregnant) in this feeding group even though they are at a normal body condition. Monitor them closely to make sure they do not exceed a BCS of 7.
  - If you do not see weight gain within 3-4 weeks, please seek further veterinary consultation.
3. Feeding for animals with a BCS>7
  - Provide access to low or average quality grass hay only. Feed only 1.5% body weight of hay per head per day.
  - Do not feed additional concentrate supplement.
  - Provide a free choice Vitamin-Mineral salt as above.
  - If the animals do not lose weight in 3-4 weeks, decrease the amount of grass hay fed on a daily basis by 10% every 2 weeks, or find a grass hay with a lower TDN. Continue to reduce this as needed.
  - Continue to body condition score the animals at least every two weeks. Once the animals reach a BCS of about 6, move them into the general maintenance pen.

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## Mazuri®

NEW RMLA EVENT

## FallamaFest – It is going to be FUN

By Julie Hall, Elizabeth, CO



FallamaFest, a fun, new ILR-sanctioned show, is coming to Colorado in September. This event is organized and sponsored by our ranch, Thunder J Ranch, with the help of many others.

We started Thunder J Ranch about four years ago, and we started our llama program in 2020. We competed in our first show in 2022, and we were quickly hooked! However, we soon discovered that there just aren't that many llama shows in Colorado. We asked our llama friends about other shows, and researched what we could do on the various llama and alpaca websites. There are other shows in some of the neighboring states, but due to family circumstances, we felt that traveling to other states for shows wasn't an option for us.

We began asking our llama and alpaca friends about starting a new show. We quickly realized that there was plenty of interest in a new show, but most people were too busy to try to organize one. However, we also found out that we would have plenty of help from our llama and alpaca friends if we took the lead.

So began our journey to get a new llama show in Colorado. It's a lot of work, but we are so excited for it all to come together in late September. Our main goal is for everyone to have fun! We want llamas and alpacas to participate, registered or not! We'll have clinics, classes, and fun and unique awards. More information about the show can be found on the FallamaFest website, at [www.fallamafest.com](http://www.fallamafest.com).

RMLA EVENT

## Explaining the Differences between Llamas and Alpacas

By Sandy Schilling, Llama and Alpaca Owner



A large crowd gathered for both presentations

In February, the Town of Chino Valley Library staff reached out to one of our Arizona RMLA members to plan an event for our community during Spring Break. March 17<sup>th</sup>, St Patrick's Day, worked great for both organizations. The library and RMLA decided to focus on the simple differences between llamas and alpacas.

Sandy Schilling coordinated efforts with the library and created a pamphlet called "Llamas and Alpacas - What's the Difference?" to hand out to the crowd. This document is available for all RMLA members to reference and use at any of their events. Contact Sandy at [sschilli9151@gmail.com](mailto:sschilli9151@gmail.com).

Karen and Bub Freund of Chino Valley, Arizona brought 2 of their llamas, Stage Stop Dorthea and her 7 month old cria, Rebecca; Linda and Brent Schlenker of Scottsdale, Arizona brought Robin the alpaca in the backseat of their truck!

Sandy talked the crowd of over 200 people through the differences between llamas and alpacas and answered questions from the attendees. The animals were the hit of the show and the crowd loved interacting with the animals. Everyone had so much fun and we met so many great people.



Stage Stop Dorthea and 7 month old cria, Rebecca



Linda Schlenker with Robin riding in the back seat!

John Mallon provided historical industry and training related information to add to the crowd's knowledge. He was also able to answer questions related to feeding differences between horses and llamas.

Nancy Wilson, also an Arizona RMLA member, donated a number of llama related items that were sold at the library event. One hundred dollars in sales and donations to RMLA were collected to benefit RMLA.

Karen's spinning group, the Mountain Spinners and Weavers Guild, was also a hit with the crowd. These awesome ladies showed the crowd how yarn is made on their spinning wheels.

Our RMLA event also made the news. Our local newspaper, the *Chino Valley Review*, came to our event and interviewed Sandy Schilling and John Mallon. Check out the article and interviews in this link <https://www.youtube.com/watch?v=nogKpxXJhoo>

**A huge thank you** to our awesome RMLA members - Karen, Bub, Linda and Brent for bringing their animals to the event and John Mallon for contributing information to both presentations and even working with the animals while he was there.

Thank You to the Town of Chino Valley Library staff, specifically Rebecca Laurence, for reaching out to us and giving us the opportunity to educate the public about these amazing animals.



Mountain Spinners and Weavers Guild members





**Karen Freund, John Mallon and Sandy Schilling**

A super special thank you to Sandy's sweet Dad for bringing all of the donated items to the event and being our salesman for the lama items.

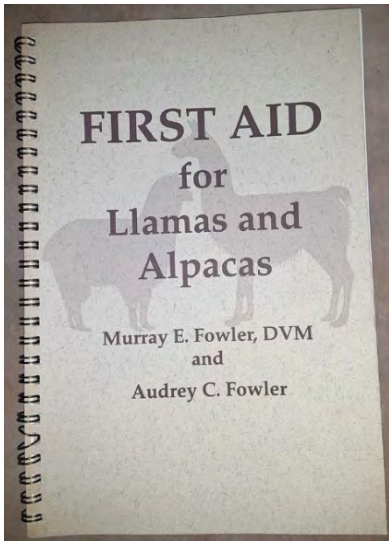
Many, many thanks to RMLA for sponsoring and supplying the required insurance for our event. Our Arizona RMLA members loved educating our local community about the llamas and alpacas.



**The RMLA Crew**

## First Aid for Llama and Alpacas

Reviewed by Nancy Wilson, Liaison to Library Committee



*First Aid for Llamas and Alpacas* by Murray Fowler, DVM, and Audrey Fowler includes detailed instructions on a wide range of first aid issues. The table of contents helps guide the llama owner to the proper section. This booklet would be helpful for any llama owner, and especially for owners without access to timely veterinary care. Anyone who does a lot of packing should also have this booklet available in a pack (and read it before heading out).

In the first section, drawings show the parts and bone structure of a llama followed by a list of rules and situations for performing first aid. There is a detailed list of items that should be included in a first aid kit. Each condition listed in the table of contents as requiring first aid is then described with

pictures included.

The book is available from the RMLA Library. Members can check out this book, and many others, from the [RMLA Library](#).

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## Have You Checked the RMLA Website Recently?

By Kathy Stanko, Co-webmaster

There is no end to the educational information being added to rmla.com. Posts recently added to the educational blog include:

- Shade & water
- Preventing Heat Stress
- Horses and Llamas
- Making an auto-feeder for llamas and alpaca crias
- The importance of haltering
- The Spring Journal of RMLA (members only)

Also, new menu items have been added to the RMLA tab. Here you will find the RMLA Founding Documents (a very good read if you are interested in RMLA history), the current bylaws, and the current Certificate of Good Standing from the State of Colorado.

Minutes of the board meetings are also current and members can find these under the Member Login tab (top right).

# Pacabuddies Spring 2023 Event

By Patti and Gary Jones, Event Organizers

PacaBuddies in collaboration with RMLA had a successful spring event at the Douglas County Fairgrounds on March 4th & 5th. We had 15 ranches represented with animals, products or both at their stalls and over 200 people visited in two days.

This event is to introduce the public to alpacas and llamas and the products produced by these wonderful animals. There were numerous alpacas and llamas and even a livestock guardian dog for the public to see. This two-day event is always a big success and we always have repeat visitors come to feed and hug an alpaca or llama. We have one in the spring, March, and one in the fall, September.

We encourage other llama and alpaca breeders to join and participate in our future events. It's a great opportunity to have the public see your animals, your products and get them to visit your ranch or farm. We also encourage the public to visit our events.

A **Big Thank You** from Pacabuddies to RMLA for providing the insurance Douglas County Fairgrounds requires.

For information on our future events, please contact us at [PacaBuddies.org](http://PacaBuddies.org).



## Training Llamas For Willing Cooperation

### Practical Principles and Techniques

by Bobra Goldsmith



*Article reprinted with permission from LANA Spring 2023 newsletter. All training photos taken by Kathy Nichols. Pack string photo courtesy of Stephanie Pedroni.*

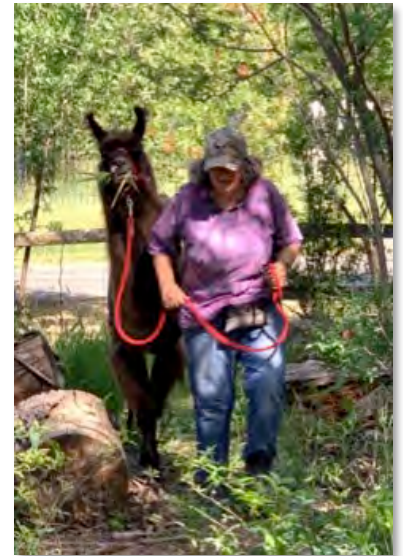
**Editor's Note:** Bobra Goldsmith lived in Longmont, Colorado where she raised and trained llamas over several decades. She was a founding member of both RMLA and the Alpaca and Llama Show Association (ALSA) as well as one of the first llama judges. An interesting side-note: in the RMLA financial records is Bobra's postage receipt for mailing the first communication to members.

Nothing is more delightful than a well-trained llama who is interested and willing to undertake whatever activities you ask him to do. Whether it is something as simple as taking a walk or visiting a school, going on a lengthy pack trip, a drive around your neighborhood, or to a llama show, the cheerful, willing llama proves to be a true companion. He shows best what the relationship between humans and llamas can be. How can we foster and develop this willing cooperation? We do this through understanding the llama's nature, or psychology, and by applying appropriate techniques in training and in handling.

While every llama has his own personality, it also exhibits to some degree the nature we associate with all llamas. I see llamas' basic nature as very intelligent, curious, extremely observant and somewhat independent, like cats, it is often said. In addition, it seems clear that they treasure their freedom of movement within their own domain. They are not particularly fearful, at least compared with some other animals. They are playful and sometimes quite physical in their dealing with each other. But their highly developed body language is their primary means of communication among themselves and with humans. Most seem to have a cheerful attitude towards life.

### Trust and Confidence

When we ask a llama to participate in some activity with us, such as packing, driving, or PR work, we are to an extent, imposing our desires on him. He might well prefer to sit at home admiring his llama ladies, wrestle with his buddies or do whatever else suits his llama fancy. But if we, in training, play upon the llama's innate curiosity and powers of observation, he can learn that there is a whole range of fun and interesting experiences open to him, which come in the company of his human. Llamas who participate regularly in human-inspired activities with other llamas, such as group packing or driving, develop a sense of comradeship with those llamas, even though they may not live together at home and may even be from a different farm. And yet the company of another llama is not essential for the llama to enjoy himself. How often we find with our young trainees that just going for a walk with a human is a wonderful adventure. It becomes an opportunity for discovery, and they love it.



This is the attitude we want to preserve, as the llama learns further that sometimes these adventures involve real work, or physical effort, and yes, even discipline. These lessons begin in the earliest days of basic training. By offering the trainee a series of small challenges, by showing him, with much encouragement and praise, that he can master these, the llama learns two things which overreach the individual lessons:

- He can trust you when you ask him to do something new
- He gains confidence in his own physical ability to do these things you ask of him

### **Avoid Boredom**

As the llama progresses and we ask more and more of him, we must be careful of several things. Repetition is, of course, important to the learning process. But llamas learn so quickly that we must not use so much repetition in the lessons that boredom sets in, for this leads to unwillingness and balkiness. It is often best to end a lesson at the point when the llama has just grasped the new idea or action, perhaps even just short of perfection in some instances. Usually at the next session you find that the lessons have been learned, and a brief review of them solidifies the llama's understanding. The action then still seems fresh to him; he is not bored and will go on to something either new or familiar with a good attitude. In fact, once a llama has learned something, broadening his experience by having him perform in varied circumstances is far superior to having him simply repeat the action over and over in totally confined, familiar surroundings at home.



How can we guard against boredom in training our llamas? The best way seems to strike a balance between the repetition which leads to discipline and perfection in performance and going out and doing something which is fun. This is not to say that the latter kinds of activities do not still afford opportunities for learning and discipline. It does not mean, either that for the fun activities we need to find a totally new route to follow each time. Repeating a familiar route can be both fun and interesting for our trainee, and at the same time its very familiarity gives the llama a sense of security and knowledge of the routing involved in the activity.

Let me cite the case of my first driving llama, Squire. When he had progressed to the point where he could be driven on local, residential streets (with an assistant alone), we would drive a particular route two or three times a week for practicing and conditioning. It was about a mile out and a mile back, with small variations possible. We encountered joggers, bicyclists, traffic, dogs and horses. As Squire became familiar with this route, he remained observant of things he saw regularly as well as the new things. Before long I found that he was watching for the noisy dog who always barked at him from behind a fence, for the two large friendly dogs who would stand up against their fence wagging their tails at us, for the cat often huddled on its porch. If these familiar things did not appear, Squire would look around as if to say, "Well, where is that cat?" Or "Where is that old dog who is usually just lolling in his driveway?" As many times as we repeated that route, Squire remained cheerful about the outing. Because of the routine, he knew that when he had completed the route, he would go home and have his rewards... his grain snack, and best of all, freedom in his pasture.

### **Physical Condition and Comfort**

Thinking Safety... making sure that nothing in the training or living situation will cause harm or pain to our llamas... should become entirely automatic with us. Equipment must fit well and cause no discomfort.

Factors which greatly affect the llama's willingness and cheerful attitude are his physical condition and comfort, which are intimately connected with his mental state. We must always consider whether our llama is physically up to what we

are about to ask him to do. If the llama is young, is he physically mature enough to accomplish the task? For a mature llama the question is whether his build and current physical condition is adequate to the challenge. In either case, it is psychologically discouraging to a trainee, if we ask him to do things beyond what is reasonably comfortable for him physically. For example, to take a yearling llama along on a five mile trek with mature packers, thinking that he will gain experience and learn about packing, may have a thoroughly negative effect on the youngster. Even though he is not carrying anything, he can get very tired. Without any prior experience, he has no idea when his fatigue will end. He

is very likely to become discouraged, unwilling and balky. This kind of challenge is too big for him. He is neither physically nor psychologically prepared for it. There is a pattern to the activity of packing, and he has no sense of it yet.

By contrast, when llamas who are physically mature enough are introduced to packing properly, they are taken on day hikes of increasing length and difficulty. They quickly learn the pattern and we might imagine that they understand it something like this: “Well, we take a ride to this place, my pack is loaded and put on, we walk on a trail that climbs a little, really different tasty plants now and then. Sometimes we have to cross a stream or a bridge. While our people eat lunch we get to eat a lot, or rest if we want. Later we turn around and amble back to the trailer. It always seems like home, for there’s always hay for each one of us. We get our backs brushed and fluffed after the packs are off. Then we ride home and get turned out in our pasture, and that’s the best part.”

When the packer trainees graduate to overnight trips, the time in camp becomes the reward at the end of the day. The pattern is similar to the day hike except that each llama has his own area limited by his stake line. He has his grain, water, grass, a place to roll and relax. With a few repetitions of this type of experience, the pack llama learns the pattern of pack trips. He knows that throughout the day’s march there will be some easy parts, some difficult parts where he will have to work hard, and there are new sights to see. But he also knows that at the end of the day he will have his reward. That the well-trained, experienced packer really does understand this pattern is shown in their willingness to go the extra mile, carry an extra load when necessary... and do it cheerfully. In addition, it seems clear that llamas get some enjoyment from their packing experiences, as long as they are physically comfortable.

In principle then, if we want to preserve our llamas’ cheerful and willing attitude, we must be sensitive to their mental and physical development and offer them incremental challenges which are suitable to their current state. We must avoid the kind of repetition which leads to boredom, disinterest and unwillingness. It seems best with llamas to strike a balance between receptive practice, which leads to discipline and perfection, and the stimulation of going out and doing something different and interesting.

### **Training Techniques... The Light Hand**

In the actual handling of our llamas with halter and lead rope, almost nothing is more important than developing a feel for what I call the “Light Hand” technique. This is the technique advocated by every good trainer, often expressed as “pull and release” or “tug and release”. When llamas are trained from the very beginning with this technique and are handled regularly with it, the normal result is that they go where you carry their rope. They don’t “argue” with you, and no heavy-handed pulling is necessary. This is because, by using a light hand, the llama becomes sensitive to such slight signals that it seems as if none are necessary. The light hand is so important, that I will say this, if it isn’t already automatic in your handling of your llamas, then you should consciously practice it until it is. Again, it is a technique to be used not only during basic training but constantly thereafter, if you want a llama who is responsible and pleasant to manage.





### **Praise and Encouragement**

Llamas respond very well to verbal praise combined with a firm but gentle massage of stroking on the neck. It provides reassurance and encouragement when they are slightly nervous about a new challenge presented to them. If the technique of praises used right from the first lesson of contact with humans, the trainee feels secure during subsequent challenges and soon develops a solid trust in the handler and confidence that he can do what is asked.

### **Reading the Llama's Expression**

When presenting the trainee with a new challenge such as stepping onto a bridge or loading into a vehicle, give him the time to look at the obstacle before asking him to move forward. Face the llama and carefully observe his expression. By watching his eyes you can see what is attracting his attention. Especially when faced with a new kind of space, like a trailer or porch, most trainees truly “explore” the whole

interior from ceiling to floor with their eyes, noticing objects and assessing the situation. Only when their attention turns away from the new object because they have finished examining it, should they be asked to come forward. When they place their front feet onto the new surface, don't hurry them, and give them much praise and encouragement. They will quickly feel the they are all right in that situation.

### **Insistence and Discipline**

There are certain moments in training when the trainer must be firm and insist that the trainee complete some action and when the llama may need a bit of physical help. These moments occur when a slightly timid trainee has a new action partly underway and feels uncertain about whether he can proceed, or he is physically unsure of how to accomplish the act. It also occurs in the case of a spoiled llama who has not had his attention focused and has a habit of arguing and pulling away. This is *not* a matter of the trainer gritting his/her teeth in the attitude “By Gummy, you're going to do this now or else!” This is *not* bullying the llama, roughing him up, or forcing him when he is unprepared to take the next step.



A good example is the situation where the trainee is being asked to step onto a bridge which is flat on the ground. He now has two front feet on the bridge and is willing to stand there and is being praised. He is fairly at ease, but when asked to move forward and step on with his back feet, he just pulls to the side to avoid the move. This is when the trainer must hold his lead firmly under the chin, preventing the llama from stepping off the bridge with the front feet. Praise for keeping the front feet on the bridge is followed by a small pull-release command to come forward a step at a time until it is necessary for the llama to place a back foot or two on the bridge. Praise again at that point and holding steady soon teaches the trainee that he is all right in that position AND that he is obliged to do what was asked. This is where discipline enters the picture.

Llamas do have a certain logical trait which can be either a help or a hindrance in training. When first asked to jump a log or walk on a flat bridge, the llama's attitude may be, "Why should I go over that when I can just as well go around?" That same logic helps when teaching a driving llama the signals for turning. If we give the trainee the signals for turning as he goes around some substantial obstacle, the signals and the action seem quite natural, or Llamas learn by doing, which is partly why they insist they accomplish some act.



association of the "logical" to him. learn so fast when we

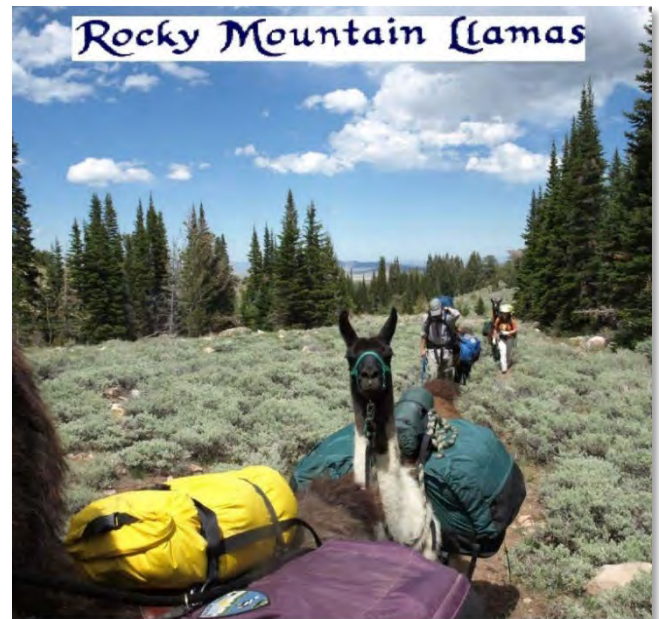
The discipline which comes from our insisting the log or walk on the bridge is essential, if we cooperative, and even a safely manageable, when we have taught the llama to walk on a ground, then on the bridge with one end raised with both ends raised, he is far better equipped a roaring stream five or ten feet down, or jumps where he does not have the option of going disciplined llama will not stand there and say, "I can't." He will do the reasonable thing we ask of him willingly and naturally. He may, when necessary, do some difficult and seemingly unreasonable things with an aplomb which astonishes us afresh and deepens our appreciation of this wonderful animal.

that the trainee jump are to have a llama. For example, bridge flat on the on a bale of hay, then to cross a bridge over a log on the trail around. The

In summary, to train for this kind of willing cooperative llama:

- Think safety and comfort
- Lead with a light hand
- Understand and be guided by your llama's physical and mental state. Present him with a series of suitable incremental challenges
- Give much praise and encouragement
- Insist appropriately, when necessary, for discipline Reward

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## Adventures in Rigid Heddle Weaving

By Nancy Wilson

If you've been wanting to weave and are intimidated by a floor loom, rigid heddle weaving is a great way to start and perhaps even to stay. There are so many positives to go with this form of weaving: less expensive than floor looms, smaller footprint, easy to transport (some looms even fold and fit in a bag), extremely versatile (more about that in the next paragraph), and easy to set up and start weaving.



This is a Kromski rigid heddle loom with a 24" weaving width looking from front to back.



This picture shows a project in the works on a Schacht loom with a 20" weaving width.

So, versatility. I recently had the opportunity to take a two-day workshop with Deborah Jarchow on using pick-up sticks with my rigid heddle loom. Rigid heddle looms are known mostly for weaving plain weave (also called tabby, or under/over/under/over weaving). Plain weave can be anything but plain if you use your yarns right. Rather than using traditional weaving yarns, rigid heddle looms are ideal for using knitting/crocheting yarns and handspun yarns.

Rigid heddle looms have a heddle with slots and holes. Raising or lowering the heddle allows the weaver to lift alternate warp threads (the threads that go the length of the fabric) to create plain weave.



Heddle

Pick-up sticks are used to lift additional warp threads to create interesting textures and patterns in the fabric. Some effects are to produce either warp or weft floats.



Pickup sticks



Side view showing shed and pickup sticks

Since a picture is worth a thousand words, here are more pictures from the workshop along with a description of what they are.



This is part of my sampler that shows warp floats (the dark blue yarn) at the bottom and weft floats (light blue yarn) at the top.



This picture shows some warp floats (dark blue yarn) and some areas where a thicker yarn (green) is used to create a honeycomb pattern. At the top of the photo is inlay using an accent (green) to lay on top of the base fabric.



This photo shows the inlay technique again. I really liked playing with this. It would be a great way to highlight your handspun yarn, especially some of your first handspun.

The photo to the right shows how to use a pickup stick to create a diamond and above that an upward and downward heart. I intentionally used a thinner, fuzzy yarn for this technique. It shows the difference using a different type and thickness of yarn makes to the design. And yes, there are mistakes in that pattern. That's why taking a workshop is so great: you can concentrate on the technique and not worry about mistakes. Learn from those mistakes and don't worry about the other things (like nice selvages and perfect patterns).

I'm confident that my next attempt at using pickup sticks will be successful. Using pickup sticks would be a great way to show off handspun yarn, add some texture to a pattern, or add interest to a yoke or hem edge. Use your imagination to create one-of-a-kind items.

Happy Weaving!

**About the author:** Nancy Wilson is a graduate of the Olds College Master Spinner Program. She has been spinning since 1988 and has recently added rigid heddle weaving to her repertoire of fiber arts. She spins, knits, weaves, and dyes in Camp Verde, AZ.



## Southwest Llama Rescue Needs You!

Together we can make a difference, saving llama and alpaca lives.

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Contact us for more info or to explore how you, too, can contribute to alpaca and llama rescue.

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[SouthwestLlamaRescue@gmail.com](mailto:SouthwestLlamaRescue@gmail.com)



Southwest Llama Rescue, Inc. (SWLR) is a all-volunteer 501(c)(3) nonprofit camelid rescue organization located in states across the southwest from CA to OK. We are funded solely by private donations and adoption fees.

In 2022, our volunteers helped over 150 llamas and alpacas; donated over 10,000 hours of rescue and care; and transported animals over 25,000 miles. Over 110 animals were placed in new homes; volunteers are currently caring for more than 30 llamas at foster farms; and coordinators maintain fluctuating numbers of intakes, often from large herd rescues, as well as smaller numbers from individuals and farms.

## Emma In-Charge

By Emma Hunt, Wunsapana Llamas 4-H Club, New York

I am a member of the Wunsapana Llamas 4-H Club in Altamont, New York. I had the wonderful opportunity to watch over the farm while Teri, our club leader, was away at a llama show for three days. This gave me a better insight into owning animals and taking care of them on a daily basis.

Over the course of these three days, I helped feed breakfast, lunch and dinner, as well as cleaning up the barn. I have created a stronger bond with the animals by being there with them and being exposed to them over a long duration of time. One of my fellow 4-H friends helped out a few times as well and I am very grateful to her.

We fed hay to all the animals and grain and mash to some of llamas that needed it. We checked on all the animals to make sure they were safe and healthy and not injured. We also fed free choice minerals and refilled and cleaned water buckets. I am very appreciative that Teri trusted me enough with this responsibility and gave me this opportunity.



## Want to Start a Llama Trekking Business?

By Sandy Sgrillo, [The Wandering Llamas, LLC](#)

Many of the readers here may already know me as the owner/operator of *The Wandering Llamas, LLC*, a llama trekking business in Greeneville, TN, and previous owner of *Smoky Mountain Llama Treks* in Cosby, TN. I started out way back in 1999 when I went on my first llama trek in the Smokies, due to my deep love of nature and animals.

After that first trek, I realized that I would be the perfect person to do this type of business! I had over 25 years' experience in the hospitality service as a bartender and a limousine driver in Miami; I figured, "Hey, if I can deal with 12 screaming, drunk people while driving a limo in a big city, I could handle 12 people walking out in the woods with llamas!" I was right.



The very next week I set out to buy my first llama. I knew NOTHING about llamas, so I read a few books, watched some videos, and taught myself everything I could, all without actually owning one. Next step... where do I find a llama? I ended up opening the newspaper and seeing a llama for sale for \$100. I said, "Great, I'm going to go buy him!" Little did I know that I should have bought llamas from a reputable, experienced breeder and paid the right price for the right llama.

This llama was so scared of everything that you couldn't even LOOK at him without him taking off and hiding. He was jumpy, wild, and had never been handled. I knew after watching the owner trying to catch, wrangle and halter him, and get him loaded in my trailer, that I had made a horrible mistake! But I nevertheless drove home with my very first llama. I named him Rocco after my father.

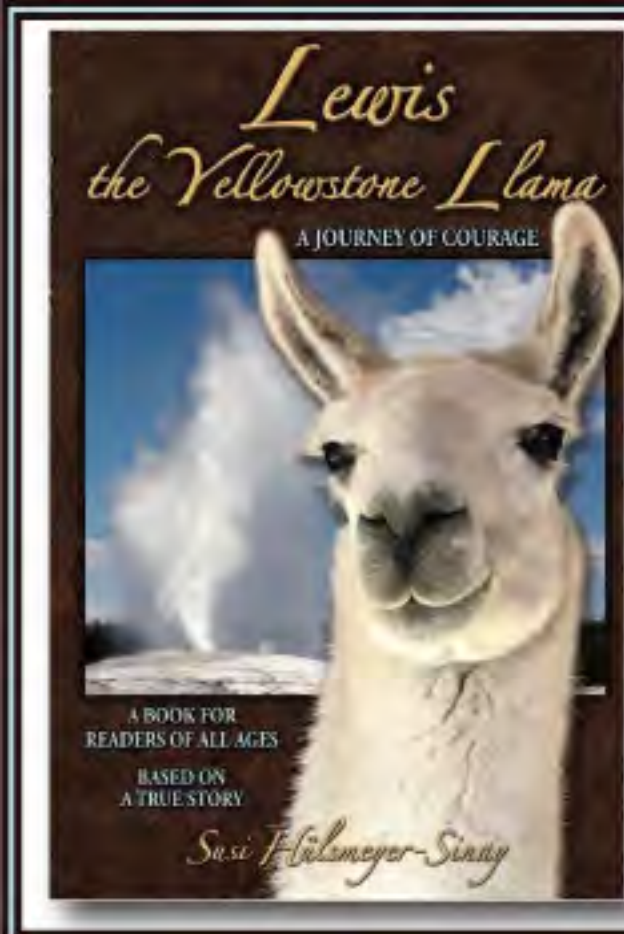
We stared at each for the first two weeks, and I forced myself to go and try to handle him, getting him used to me and other people. I built a catch cage and fed him in there. He let me eventually pet him, and I got him used to the halter, which was a huge feat. Then came the pack... on, off, on and off, a thousand times a week. We started walking down the street together with looks of confusion on all my neighbors' faces. Then I bought another llama from a breeder, and then four more! It was finally starting! I trained and walked those llamas daily down my street for over a year before I felt that they were ready for treks. And they were! Rocco was still a little crazy, but he was doing much better with the others around.



Ok, so now I'm getting to the business part... MAKE SURE you have trained, calm, friendly, easy to handle llamas. Spend the money and don't buy "green" llamas. Your business is going to depend on those llamas in order to grow, thrive, and get repeat business because the people will fall in love with them. They will memorize their names and enjoy their photos. They will spread the word all over social media. Let your customers do the work of informing others on how great your llamas are and how fun your business is.

Now that I've stressed the fact that the llamas are important, I want to tell you what is MORE important than the llamas. YOU. You are the person that customers deal with right from the start... from their first contact with you to you taking their reservation, explaining to them what to expect, and any other issues they may have. And trust me, people ask a ZILLION questions, so be ready for it. Be patient, be friendly, be informative, and be fun! Always work with them to fit them into your schedule, and keep returning to them (by phone, email, text) so that they don't forget about you. Be CONSISTENT. Get that booking, no matter what! A lot of people will say they want to book a hike, but then forget about it... be persistent and keep in touch with them, but don't go so far as to bother them. This is actually the MOST Important thing that your customers will remember... YOU. It doesn't matter if you have the prettiest, nicest llamas... if they don't like YOU, they won't like the experience.

I need to stress how important online reviews are; 23 years ago, when I started out, there was no social media, no reviews and no easy way to exchange information to MILLIONS of people instantly. I didn't have much to worry about back then if someone was a little unhappy. Great reviews can make your business grow fast and profitable! Do everything in your power to not get a BAD review! One BAD review can ruin what you've built up in ten years and kill your entire year. Be observant while you are on your hikes, and watch people for signs of discontentment. Are they struggling with an unruly llama? Are they getting too hot in the summer heat? Are they huffing and puffing along the trail? Watch for any issues that they may consider a problem and immediately fix that problem. Make sure you speak with everyone in your group and be genuinely interested in them... ask about their life, their work, their family. Have fun and laugh a lot. Make this experience one that they will never, ever forget! If you read my reviews, you will see that they always start out with, "Sandy was the best! She helped us, and was so friendly and nice"... etc. People will always refer to the human first, then the llamas and trails. It took me a long time to learn this!



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The easiest way to start conversation and interest is to talk about each llama. When you stop for breaks along the trail, people love to hear about all the llamas. “What’s this one’s name? Where did you get him? Tell the stories, tell them the crazy things he does, and tell them all about how you trained him. People love to know how it all started out. In fact, that’s the #1 question I receive daily... “How did you ever start this business?” Tell the funny stories!



Considering trails, make sure you select a property that is easy for EVERYONE. You want to be able to accommodate older people, small children and even disabled people. I once took a BLIND couple out on a trek, and they did exceptionally well! They were so happy to be able to experience something like this! If you don’t have your own property to hike on, then you will have to find a neighbor, a friend or a public park to use. Never trespass on someone’s private property. Permits and insurance will be required!

Yes, insurance is very important! My highest priority is safety, so that no one gets hurt! In 23 years of trekking, I have never had to contact insurance for a claim. I make SURE people follow directions and don’t do something stupid to cause an accident or injury. And yes, they WILL do stupid things; they will not listen to instructions or rules, and so things do occasionally happen. I screen customers BEFORE making the reservation by having them fill out a small questionnaire about their age, health and abilities. If I find that they are too much of a liability, then I will kindly inform them. This isn’t going to happen often, but if someone says they are 85, and just had a heart surgery, then I know, it’s not a great idea to attempt a moderate or stressful llama hike. I suggest a farm visit instead, where they can experience the llamas without hiking. Work with everyone to make them happy!

When it comes to your business and what you offer, make sure it’s something that you are comfortable with. For instance, if you love children, create many children’s activities! Treasure hunts, birthday parties, painting, comedy, costumes, etc. If you want to stick with more mature adults, then create a romantic getaway, a quiet hike to a waterfall, a yoga class... anything that you can create that’s different! People these days are seeking UNIQUE experiences. If you prefer longer, more adventurous hikes, then do those, i.e. camping and spending 3 or 4 days and nights out in the wilderness? Then offer those hikes! If you just want to stick with a short lunch hike, then do that. Whatever you feel most comfortable with, do it. It’s your company, and you can offer what suits your own lifestyle.

Here are some other issues that make a huge difference in your business. People notice EVERYTHING. Have a GREAT, informative website with lots of gorgeous photos. Describe everything in detail. Don’t ever be LATE! Don’t EVER show up with dirty, ungroomed llamas. Don’t EVER use a llama that may spit at someone. Make sure you know which plants in your area may be toxic for llamas. Don’t use equipment that is too old, rusty or dirty. Don’t hire someone that is inexperienced with you, your llamas or your business. Train them first before allowing them to assist you. Don’t ever talk about religion, politics, the world’s problems or anything else that is sad. Keep conversation light and fun! DO talk about other things in your area to do. Make suggestions. Take photos of your hikers and send them a group of the best shots (for free). Keep in contact with them after the hike... let them know that they are now a FRIEND and not just a customer. Make sure your llamas are healthy, able to do what you ask, and are happy doing it. The key is training and consistency!

And last but not least, don’t just sit around and wait for the phone to ring. Get up, get out, and DO something daily to promote your business. I have found the best ways are through human contact! Take them out for a walk in a park, let people pet them, give out business cards. Write TV and newspaper stories and get them on your local TV! Link with other companies in your area and get listed on their websites. Use your brain, and NEVER give up or get lazy. YOU are

they key to success and with llamas; it's that much easier. People LOVE llamas, you'll see how easy it can really be. Good luck and enjoy working with the most wonderful animal on earth.

**About the Author:** Sandy has lived in Tennessee for more than two decades. [The Wandering Llamas, LLC](#) was started to help visitors to the enjoy hiking with llamas and glamping in style in the Smoky Mountains.

## HEALTH AND MEDICAL

# An Overview of Ear Tick Management


By Dr. Elizabeth Crabtree, Intern and Robert Callan, DVM  
CSU Veterinary Teaching Hospital

**Editor's Note:** Many of us have had a wet winter and spring. Ticks thrive in moisture. Hence we are reprinting this article from the Spring 2019 Journal.

Ticks can be a difficult and frustrating part of livestock management. Ear ticks bring about an especially frustrating aspect for camelid owners. In this brief article we will discuss the life cycle of ear ticks, management practices to keep ear ticks under control, and potential conditions caused by these creatures.

Ticks are considered arachnids, and there are two broad categories of ticks: hard ticks and soft ticks. These two categories are based on the structure of tick's shell surface. While both categories of ticks can take up residence in the ears of llamas and alpacas, the soft tick *Otobius megnini* has an affinity for ears.

Note: It is important to remember that ticks are not the same as mites. Mites are much smaller than ticks, have a different life cycle and cannot be seen with the naked eye. They actually burrow into the skin and are not readily observed on the surface. Ear mites do occur in cats, dogs, rabbits, ferrets and humans, there is not a recognized ear mite in camelids.



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This tick is often called the spinous ear tick because the nymph life stage is covered in small spines and a part of its life-cycle is directly related to the ear canal. Adult *Otobius megnini* ticks lay their eggs on the ground. These eggs hatch into larvae, and the larvae begin searching for a host ear to take up residence. When a host reaches down to graze or lays down on the ground the larvae have their opportunity to reach the ear. Once in the ear canal the larvae will stay there and molt through their larval stages and into the nymph stage. Consider the nymphs teenage ticks. These nymphs continue to take blood meals from the skin and burrow into the ear canal until they reach their adult stage. Once these ticks have reached their adult phase, they leave the ear and the host to mate in the environment, lay eggs, and die. While this life-cycle may appear simple, it is often times hard to break this cycle and control ear ticks due in part to the lengthy time that the ticks can survive on the host and in the environment.

Figure 1. Adult spinous ear tick (*Otobius megnini*). From <http://csu-cvmb.colostate.edu/vdl/Pages/spinose-ear-tick.aspx>.



Camelids have a particular aspect to their ear anatomy that makes managing ear ticks even more difficult due to the length and shape of their ear canal. While it is common with most other species to be able to look down the length of the ear canal and visualize the tympanic membrane, that is not the case for camelids. Camelids have a long ear canal that makes a sharp turn. This turn prevents us from visualizing the entire length of the ear canal, and it also makes a great and safe environment for the ear ticks to hide. This often means we do not readily see the ear ticks that may be causing camelids problems until secondary conditions arise.

The most common secondary condition seen in camelids with ear ticks is ear infection. While it is possible that they can get a simple external ear infection, it often progresses to a much more complex infection involving the structures of the middle ear (otitis media) or inner ear (otitis interna). As in humans, middle and inner ear infections require more intensive care, and often show extreme clinical signs. These signs can include, but are not limited to, tilting of the head, drooping ears on the affected side, foul smelling discharge from the affected ear, wide based stance, difficulty turning, and seeming to not be able to balance when walking. If any of these signs are seen, a veterinary consultation is warranted immediately. Some other subtle signs of ear tick infestation include shaking their heads, rubbing or scratching their ears on inanimate objects, and pain on manipulation of the ear.

So, what can be done to manage these little buggers? As previously mentioned, it is very difficult. Unfortunately for us, and our camelids, there is no oral medication for the prevention of tick infestations like there is for small animals. Fortunately, there are management practices that can aid in decreasing the occurrence of ear ticks.

On an environmental management standpoint, pasture should be kept short, and access to heavily wooded areas could be decreased. Tick larvae do not survive well in direct sunlight, and they will try to find suitable places deep in grass, in bushes, or shade in other environmental structures like log piles. Keeping the pasture forage short can facilitate keeping the larvae further away from the camelid's ear when they graze. Brush and wood piles should be removed from pens and pasture areas. You can also use commercial permethrin sprays to reduce the population of ticks in the environment.

While these efforts may help, it is often more feasible to treat the animals and kill the ticks in the ears. This can be done in many different ways. Catron® IV fly spray is available at the majority of farm and ranch supply stores, and it is a great option! It is effective in treating the ticks, economical, and it is labeled for use in controlling ear ticks. Catron® IV can be

sprayed in and around the ears. Many llamas and alpacas do not particularly like to have their ears sprayed, so as an alternative you can spray some into a cup and then draw the fluid into a syringe and apply into the ear canal. Another great option is using Ivermectin. It can be placed directly into the ear to kill the ticks on contact. This is an extra-label use of Ivermectin and you should work with your veterinarian to determine if it is an appropriate treatment for your animals. Both Catron® IV spray and Ivermectin can be administered in the ear on a monthly or bi-monthly basis to control the ticks.

Based on the *Otobius megnini* life cycle and the amount of time it spends on and off the host, we recommend treating all animals once monthly for at least 8 months. While the ticks will be controlled in the animals sooner than the full 8 months, the ticks can survive in the environment for up to 7 months. In addition, other wildlife and domestic animals including deer, coyotes, dogs, rabbits, goats, and horses can be hosts for ear ticks and continue to maintain exposure from the environment. Work with your veterinarian to develop a prolonged treatment and control program based on your herd's environment and management.

We are aware that Fipronil is also used in the ears to control ear ticks. While this is very effective at controlling ear ticks, Fipronil is labeled as a pesticide and regulated by the EPA. It is a violation of Federal Law to use this product in a manner inconsistent with its labeling such as applying in the ear of a llama or alpaca. Because of this labeling we do not recommend its use for the control of ear ticks in these species.

The CSU Livestock Service hopes that this article was fun and informative, and if you have any further questions please do not hesitate to contact us by calling 970-297-5000!

## TRAINING/BEHAVIOR

# Remember To Take That Step!

By Marty McGee Bennett

[CAMELIDynamics](#)

One of the basic tenants of my teaching is to help an animal find his balance. I have been taking a variety of new aerobics classes as part of the Mayor's Fitness Challenge and am keenly aware of balance and form. Actually, I have been marveling at how I can be so balanced in one aspect of my life and struggle so mightily in another...

You would think balance is balance! NOT! However, it is true that keeping your balance IS what it is all about. You cannot adequately help an animal with his balance unless you are secure in your own. Especially when working with difficult animals, the moments when you are not in balance are the moments when your animal will choose to move, jump, or change direction. This is not a coincidence. When you are not in balance, you either lose the light connection that you have with your animal or you end up using the animal to keep your own balance. In both of these cases you provide or provoke an animal that is intent on avoidance or escape the opportunity and motivation to do one or the other. A lack of balance is usually a contributory factor to any difficulty in handling and remembering to take a step at the right moment in a training or handling process is a sure way to success.



The easiest and best way to stay in balance is to keep your weight over your feet. This means that when you reach out with your hand, take a step with the foot on that side of your body. In other words: reach out with the right hand, take a step forward with the right foot, reach out with your left hand take a step forward with your left foot.

Here is a partial list of tasks that require that you take that step! I am sure you can think of more once you start looking at your balance with more intent.

- Getting ready to put the nose band over the nose. It is common for a handler to forget to move forward to actually put the nose band on the nose. Staying behind the eye is useful for many tasks but to put the nose band up in front of the nose and remain in balance as you put it on requires that you step forward to the front of the animal. Not moving forward means that you will likely put some amount of pressure on the animal with your RIGHT hand causing the animal to pull to the right and away from you. Many handlers assume this is because the animal is resistant to the halter when in fact it is a reaction to the pressure applied with the right hand.
- Putting the crown piece over the neck. Once you have the nose band on and you put the crown piece under the jaw and over the back of the neck with the left hand, remember to take that crucial step forward with your left foot. Again, if you don't take the step, the tendency is to use the animal's neck for balance by either leaning on the neck with your right hand or pushing down on the head with the left. Taking that step will help you avoid this common tendency.
- Catching an animal with the wand and rope. To use the wand and rope for catching, remember as you reach out with the wand (usually with your right hand), step forward with the right foot. This will help you get the wand far enough past the neck that you don't hook an ear or move erratically as you try to keep your balance.
- Teaching an animal to lead. When teaching an animal to lead remember that when the animal takes a step forward you must take a step back not only to keep a safe distance between you (from your animal's point of view) but also to keep yourself in balance.

**About the Author:** Marty McGee Bennett has been teaching her brand of training and handling camelids, CAMELIDynamics, worldwide since the mid 80's. CAMELIDynamics is the featured approach to training and handling camelids in every major academic textbook about camelid husbandry. Her book the *Camelid Companion* is the go to resource for anyone who owns llamas and alpacas since its debut in 2000.

## BOOK REVIEWS

### New Books in the RMLA Library

By Nancy Wilson, Liaison, Library Committee

RMLA has had a few books donated that are being added to the library. I'll break them down into topic areas and give a brief description of each one.

#### Training

- *Llama Driving: A Basic Guide to Training and Driving Your Llama* by Ron Shinnick
- *Llama Handling and Training: The TTEAM™ Approach*, by Marty McGee with Linda Tellington-Jones
- *Click & Reward™ User's Guide*, by Jim & Amy Logan (original and second volume)

*Llama Driving* is a step-by-step guide through the process of training both driver and the llama to drive. It describes the

equipment and parts of the driving harness and cart. Illustrations include both line drawings as well as photos that are clear and well labeled.

*Llama Handling and Training* would be a great way to get prepared for a workshop with Marty McGee. You can acquaint yourself with the concepts involved and be ready to use those concepts in your training. There are good illustrations with an occasional cartoon thrown in for good measure. Topics include halter training; working with young llamas; herd management; harvesting and using fiber; and loading in a trailer, obstacles, and pack training. Appendices provide summary steps to the haltering process, sources for more information, plans for a mini catch pen and creep feeder, wool washing instructions, photo credits, and a progress diary.

*Click & Reward* uses a clicker to reinforce the desired behavior and is used on whales, dolphins, and other animals. It describes the process with llamas and gives suggestions for tasks that can be accomplished with this method. Volume two builds on information from the first volume by going more in depth through the training process and also talks about eliminating undesirable behaviors.

#### Llama/Alpaca Care and Use

- *Living with Llamas: Adventures, Photos, and a Practical Guide* by Rosana Hart
- *Llamas: For Love and Money* by Rosana Hart
- *A Guide to Raising Llamas* by Gale Birutta
- *Llamas: An Introduction to Care, Training, and Handling* by Sandi Burt
- *Making the Most of Your Llama* by Dr. Linda C. Beattie and Cathy E. Crisman

Looking at these books is a bit like a trip down Memory Lane. Copyright dates are from the mid-1980s to the early 1990s. They are also a testament to the staying power of these wonderful animals. Rosana Hart's books tell her story of getting involved in llamas and include good information for new owners. Seasoned llama owners may find the historical aspects of these books interesting. *For Love and Money* includes care information and ideas for how to go into business with your llamas if that's something you're interested in.

*A Guide to Raising Llamas* includes similar topics to Rosana Hart's books, as does *Llamas: An Introduction to Care*. Both include sections on poisonous plants. Sandi Burt's book includes more photographs whereas Gale Birutta's book is more line drawings and includes a section on business possibilities. Both have good information about housing, fencing, showing, breeding, and general care. Burt's book has information on driving your llama.

*Making the Most of Your Llama* calls itself an owner's manual. It is a short volume that covers the basics. It is not as in-depth as the other books and does not have as many illustrations.

Publication dates on these books range from 1985-1997. Readers should understand that much research has been done since then into nutrition and veterinary care. However, much in these books is timeless information, and you may find a new approach to an old problem in these vintage books. Keeping your RMLA membership current provides you with the most up-to-date information on caring for your llamas and alpacas.

## The Components of Life: Minerals and What They Do

From the 2023 Spring LANA Newsletter. Reprinted with permission. Author unknown.

The major minerals in livestock are calcium, phosphorous, sodium, chlorine and potassium. An essential mineral performs specific functions in the body and must be supplied in the diet. Too much or too little of any one may be harmful or even dangerous. Check with your vet to best determine which supplements to use at your farm.

### Calcium (Ca) and Phosphorous (P)

Calcium and Phosphorous are the most abundant minerals found in the animal. Both are found in teeth and bones. Calcium is necessary for blood clotting and muscle contraction, as well as for the function of numerous biochemical reactions in the body. All biochemical reactions, which allow the energy in food to be utilized by animals, require phosphorus.

### Vitamin D

Vitamin D levels are essential to the absorption and deposition of Calcium. Excessive magnesium (mg) decreases absorption, replaces calcium in the notes and increases calcium excretion. Excess calcium and magnesium causes a decrease in the absorption of calcium. Research has shown that females over the age of eight usually need a calcium increase of 30% to 35% to maintain a balanced diet.

### Sodium (Na) and Chlorine (Cl)

Sodium and Chlorine are found together as Sodium Chloride (NaCl or common salt) and serve to maintain proper acidity levels in the body fluid and pressure in the cells. A sodium deficiency can result in reduced growth, eye disturbances, and reproductive impairments (delayed sexual maturity in females and infertility in males).

### Potassium (K)

Potassium, like sodium, serves to maintain proper acidity levels in body fluids and pressure in the cells. It is also required in a number of enzyme reactions in carbohydrate metabolism and protein synthesis.

### Trace Minerals

Trace Minerals are listed below and supplementation is not an easy matter. They are required in only very small amounts. Some of those fed in excess may cause a deficiency in others.

### Magnesium (Mg)

Magnesium is necessary for utilization of energy in the body and for bone growth. An excess in magnesium upsets calcium and phosphorus metabolism.

### Sulfur (S)

Sulfur is a component of body protein, some vitamins and several hormones. It is involved in protein, fat and carbohydrate metabolism as well as blood clotting and the maintenance of proper fluid acidity.

### Zinc (Zc)

Zinc affects growth rate, skin condition, reproduction, skeletal development and the utilization of protein, carbohydrates and fat in the body. Deficiency can result in poor hair development and slipping of wool along with rough, scaly or thickened skin.

### **Copper (Cu)**

Copper deficiency can result in anemia, de-pigmentation in the hair, infertility, cardiac failure, lameness, joint swelling and bone fragility. Copper utilization and storage may be inhibited by excessive molybdenum. Toxicity has much the same symptoms as deficiency.

### **Molybdenum (Mo)**

Molybdenum forms an essential part of some enzymes. It may also have a stimulating effect in fiber digesting micro-organisms in the rumen. Excessive quantities may cause a copper deficiency.

### **Selenium (Se)**

Selenium is often a major deficiency in llamas. However, in some regions there is a surplus of selenium in the soil. Selenium deficiency results in lower fertility, an increase to retained placenta, weak crias and white muscle disease.

### **Magnesium (Mg)**

Magnesium is needed for bone formation, growth and reproduction. Magnesium is also essential for utilization of carbohydrates.

### **Iodine (I) and Cobalt (Co)**

Iodine and Cobalt are needed in trace amounts. Iodine is needed for the thyroid glands, which influence metabolism of the body. Cobalt is necessary for micro-organisms in the rumen to synthesize Vitamin B12.



A pause in the action at the Town of Chino Valley Library event. See page 15 for the story.

## Woolly Tidbits

by Chris Switzer, Estes Park, CO

I believe in using good yarns – i.e. alpaca or llama. On tags with the price, fiber content, and washing instructions, I always write Handspun and /or Hand dyed, if appropriate.

My displays of handwoven scarves at two local galleries have a variety of colors and textures. Some scarves are planned for men. I always offer several that are 100% alpaca (or llama). How many are on the spiral display rack? 30! Yes, really. Customers like having a choice.

Remember to weave or knit or crochet for seasons – spring colors versus fall colors. Buy red yarns when you see them, you'll need them. Have some green yarns too.

Even in summer, I weave scarves, thinking ahead. Retail prices range from \$50 - \$54, depending on yarns used. Yes, I also weave shawls. More yarn is used for 3 yd. warp and 8 oz. weft, so they retail for about five times as much as a scarf. And it takes a lot longer to set up. (3 yds X 22 in. wide)

I read, long ago, that materials + time X 2 = retail? price. I don't live on the East coast nor the West coast where prices are higher, so I'm realistic about what the market will bear. I do mark down scarves that have been around for a long time. It is better to have someone wearing it than have it sitting on a shelf.

What do you do with a questionable yarn? Answer – put it in the freezer! (no, to moth balls – they are poison). Herbal treatments last awhile, but must be replaced often.

Recently, a yarn label I saw said "Baby Alpaca." This means a micron count for quality/fineness – this does mean NOT a young cria has been shorn. I had to explain to a new shop owner with quilting fabrics and specialty yarns what this meant.

We have been fortunate to tour the mills in Arequipa, Peru. We learned so much and asked many questions. Their equipment for carding and spinning was impressive. I encourage you go to a U.S. mill and learn. Make an appointment! Enjoy!

**About the author:** Phil & Chris Switzer were on the founding committee for the Estes Park Wool Market over 30 years ago. In the forty years they raised alpacas, they had over 600 crias. Chris loves to weave with alpaca yarns.

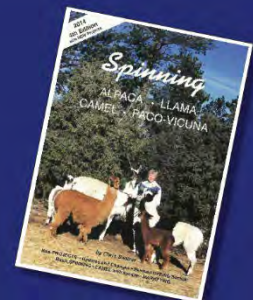
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