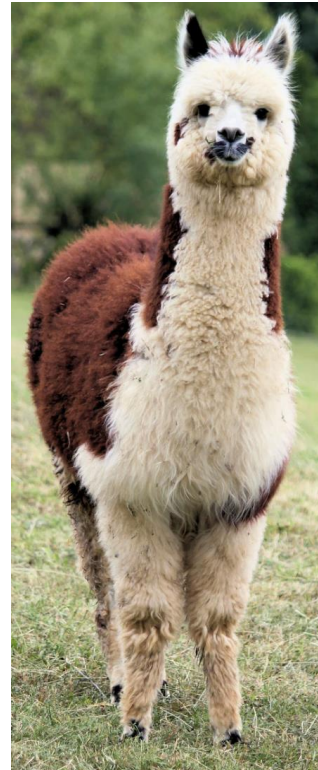


Tips and Tricks to Living with Llamas and Alpacas



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Purpose of this packet.

The purpose of this packet is to provide basic information to 4-H members and other interested parties about llamas and alpacas. Many members, especially those just beginning, are unsure of where to start or what to learn in regards to a llama or alpaca 4-H project. This packet discusses different breeds and types, diseases, and specific issues related to the project. While this packet is by no means all-inclusive of what is required to raise llamas and alpacas, it is a good starting point.

This packet will encompass topics such as disease and treatment, types, and other related information that will work to better the reader's understanding of their project. The primary goal is to help facilitate a more confident and prepared member that will continue to develop skills and greater personal and project growth in their desired project area.

This packet was developed in 2020 for families beginning in the llama and alpaca project areas.

Common Terminology

1. Colostrum: First milk consumed by cria after birth
2. Cria: Baby llama or alpaca
3. Cull: Removing an animal from your herd due to lack of need for that animal in program
4. Kush: The act of lying down with their sternum to the ground
5. Maiden female: A female that has never been bred
6. Paddling: When the front feet swing out from their body as they move; considered a fault
7. Pronking: Stiff legged bouncing usually done to play and look for potential predators
8. Tipped ears: Ears that are not completely upright and are partially folded over due to weak cartilage
9. Gelding: Castrated male llama or alpaca
10. Hembra: Female alpaca
11. Loft: How fluffy the fleece is after squeezing
12. Luster: Sheen of fleece; More luster is desired
13. Macho: Intact male alpaca
14. Micron: Refers to fiber's fineness; Smaller microns means finer wool; 1/1,000 of a mm.
15. Orgling: Sound made by males that induces ovulation in females
16. Staple: Group/cluster of fibers that is organized
17. Tensile strength: How much pulling force can be applied to fiber before being damaged through breaking and stretching.
18. Tippy wool: Wool that is weathered on the ends and high in fleece debris; Undesirable
19. Yolk: A fiber impurity that is colorless; caused by grease and sweat

The Difference between Llamas and Alpacas

It's very common for people to mix up llamas and alpacas, but as a showman you will be expected to know what those differences are and will often find yourself explaining the differences to the public and even those involved in agriculture.



Llamas have, what has been coined as, “banana ears” meaning their ear shape resembles a banana while alpaca ears are small and straight.

Llamas can weigh up to 400 lbs, have faces that are longer, and are more independent. Alpacas can reach a maximum weight of 145 lbs, have faces that tend to be smaller and blunted, and are more herd-minded.

There is also a difference in their fiber. Alpacas have a single coat, which is finer, produce a greater amount of fiber, and come in 22 different colors. Alpacas have two different type classifications. Llamas, on the other hand, generally have a double coat, which is coarse on the outside and soft on the inside, and come in four different classification types.



Images courtesy of Clackamas County 4-H Extension Office and Hidden Oaks Llama Ranch

On a final note, llamas make better pack animals than alpacas do due to their larger overall size that permits them to carry larger loads for longer.

The Similarities between Llamas and Alpacas

Despite their differences, llamas and alpacas have many similarities. To begin with, they both have their roots in South America and are part of the camelid family. They are also both used for fiber and even have a common classification type, which is called “Suri”. Llamas and alpacas are both known to spit when displeased, have very similar physiological parts, and have nails instead of hooves. When it comes to breeding, both are induced ovulators, have a gestation period of approximately 350 days, their young are called crias, and males in llamas and alpacas reach sexual maturity around three years old. Their diets are also the same since they are both herbivores.



Image courtesy of Kallerna Image is cropped



Image courtesy of Andy F. Image is cropped

Parts of a Llama and Alpaca

Knowing the parts of your llama or alpaca is important for reasons both inside and outside the show ring. Inside the show ring, it allows you to show off your animal at its best angles while also knowing which strengths and weaknesses to speak on should the judge ask you. You may also be asked to locate a certain part of your llama or alpaca. Outside the show ring, it can help you diagnosis ailments your animal is suffering from as well as help you identify some injuries. When it comes to breeding, it also allows you to choose an appropriate mate to better your herd. Below are diagrams to help you learn the parts of alpacas and llamas.

Alpaca

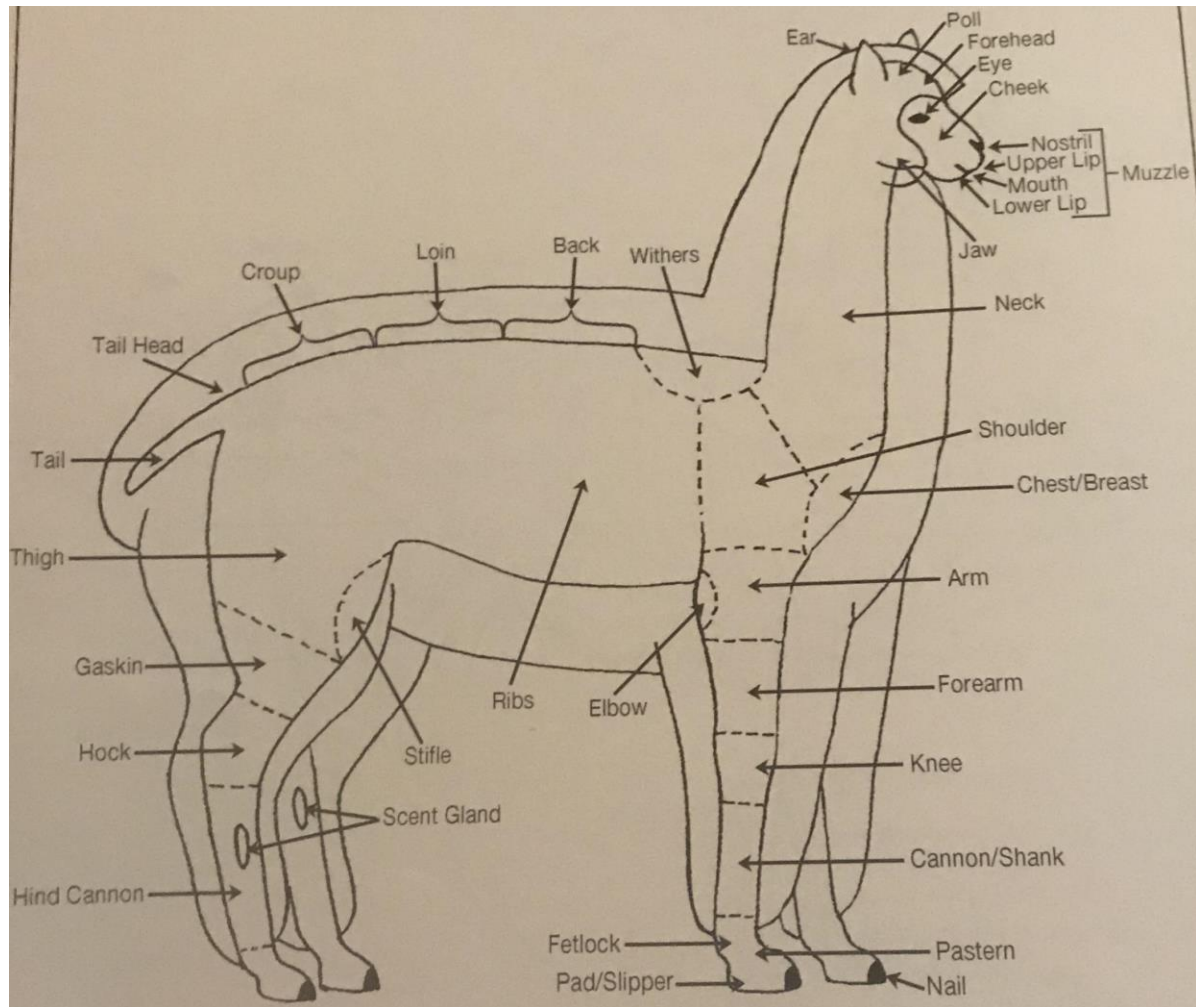
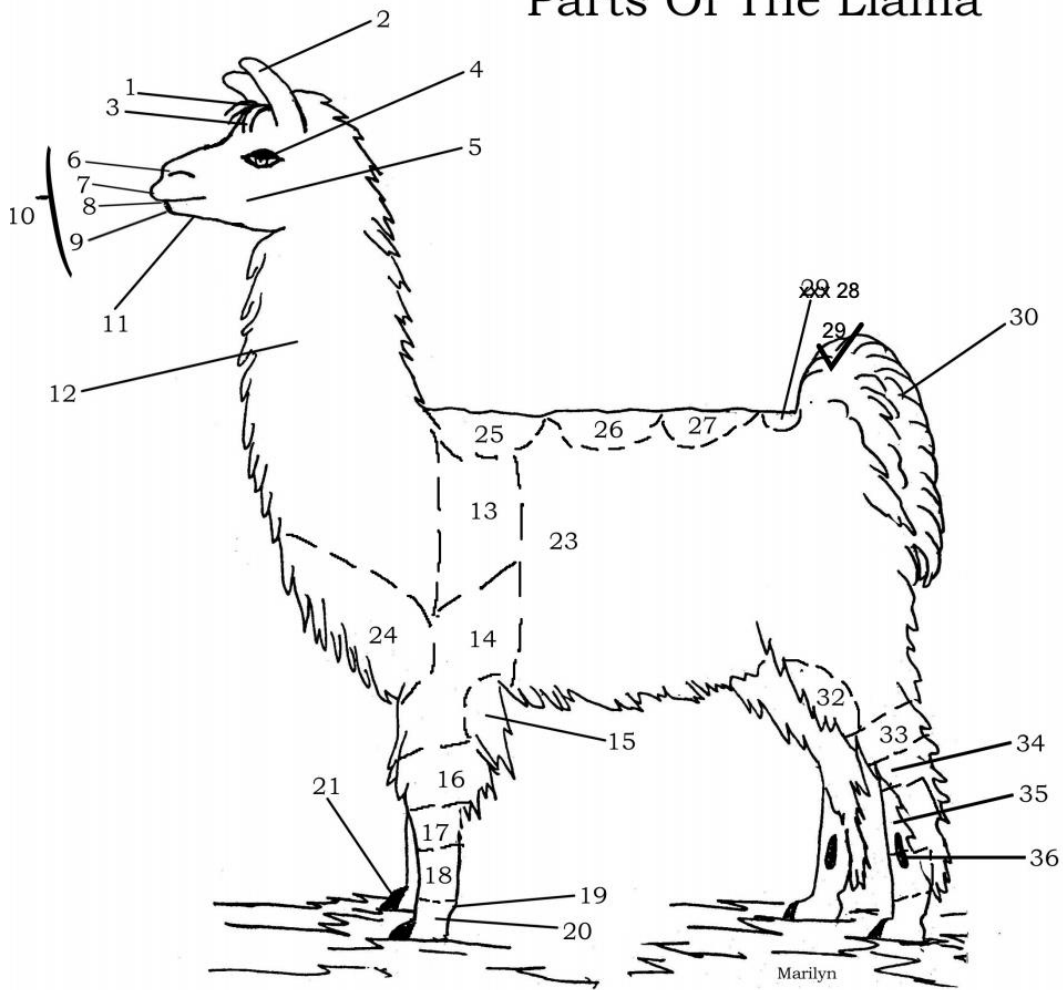


Image courtesy of The Ohio State University Extension

Parts Of The Llama



- | | | |
|--------------|--------------------|-----------------|
| 1. Poll | 13. Shoulder | 25. Withers |
| 2. Ear | 14. Arm | 26. Back |
| 3. Forehead | 15. Elbow | 27. Loin |
| 4. Eye | 16. Forearm | 28. Croup |
| 5. Cheek | 17. Knee | 29. Tail Head |
| 6. Nostril | 18. Cannon/Shank | 30. Tail |
| 7. Upper Lip | 19. Fetlock | 31. Thigh |
| 8. Mouth | 20. Pastern | 32. Stifle |
| 9. Lower Lip | 21. Nail | 33. Gaskin |
| 10. Muzzle | 22. Pad/Slipper | 34. Hock |
| 11. Jaw | 23. Ribs | 35. Hind Cannon |
| 12. Neck | 24. Sternum, Chest | 36. Scent Gland |

Image courtesy of North Dakota State University Extension

Common Diseases and Treatments

In the table below lists some common diseases and ailments found in llamas and alpacas as well as a few pertinent details in each column. This list is far from all-inclusive and is just a sampling of what can be found, both of diseases/ailments and in the following columns. In columns two through five are common details related to that disease/ailment.

Disease/Ailment	Symptoms	Treatment	Prevention	Other Details
Meningeal Worm	<ul style="list-style-type: none"> -Uncoordinated movements -Lameness -Paralysis and blindness 	<ul style="list-style-type: none"> -Supportive therapies paired with steroids and repeated high doses of anthelmintics. *This is very hard to treat and may fail to cure the worm infection. Consult with a veterinarian* 	<ul style="list-style-type: none"> -Deer-proof fence -Clear out thick foliage covering on ground -Pen away from areas where snail and slug populations are high 	<ul style="list-style-type: none"> -White-tailed deer are carrier hosts who it does not cause disease in -Some snails and slugs also carry it -Only after the animal has died can it be definitively said if meningeal worm caused the death
Gastric ulcers	<ul style="list-style-type: none"> -Depression -Self-subjected isolation -Lots of time spent laying down -Hunching up back -Decreased eating 	<ul style="list-style-type: none"> -Reduce stress -Do not feed acidic foods -Lower gastric acid production, if possible -Give omeprazole at discretion of veterinarian 	<ul style="list-style-type: none"> -Keep stress as low as possible -Research treatments of ailments and diseases and their possible connection to stomach ulcers 	<ul style="list-style-type: none"> -Ulcers are usually a secondary issue caused by something else -Can be caused by some parasites and medical treatments
Rain Rot	<ul style="list-style-type: none"> -Crusty looking scabs -Bare skin spots -Hair comes off with scabs -Small pustules 	<ul style="list-style-type: none"> -Often will go away on its own -Shampoos containing keratolytic agents can help with 	<ul style="list-style-type: none"> -Provide shelter to get out of rain -Bug repellent in the warmer months -If fleece is wet 	<ul style="list-style-type: none"> -It's caused by a bacteria -Bacteria can live in skin dormant for extended amounts of time

		condition	keep inside until fleece fully dries	-Bacteria “activates” when skin sustains damage, such as being wet for extended amounts of time or bug bites
Biting Lice	-Matted and broken fiber -Dull fleece -High amounts of rubbing and itching	-Pour-on organophosphates or synthetic pyrethroids at direction of veterinary and bottle instructions	-Sterilize all equipment before and after using, especially if they were used on another animal	-The sides, head, neck, spine, and tail are the areas of highest infection potential -Lice are host specific but can go between llamas and alpacas
Listeriosis	-Self-inflicted isolation -Leaning on things for support -Full or partial facial paralysis -Circling -Drooping ear(s) -Running into things	-Supportive therapies -Strong antibiotics at the discretion of veterinarian	-Do not feed spoiled silage to animals or discard for wildlife to consume -Always a listeriosis infection risk when feeding silage	-Also called circling disease -Difficult for transmission to happen from one animal to another -Open mouth sores/wounds make it easier for bacteria to enter animal

***DISCLAIMER:** Authors are not veterinarians and only provide this information as a personal reference. They are not responsible for outcomes. Consult a veterinarian for veterinary advice and treatment.*

Classifications

Llamas and alpacas do not have breed classifications and instead are classified by their fiber. There are only a handful of fiber classifications for llamas and alpacas, which are listed below. After each photo is a list of details, unique characteristics, and facts that are geared towards that particular fiber type. You may notice that there is a bit of overlap in the classifications of llama fiber and alpaca fiber but it is important to remember the previously mentioned differences between llamas and alpacas. They may share similar classifications but they are different in physiology. Below are the classifications of fiber for llamas and alpacas

Huacaya- Alpaca



Image courtesy of Trish Steel
Image is cropped

- Similar to a sheep a Huacaya [wuh-KAI-ya] Alpaca has what is called a top knot which is a puff of fiber that grows on the top of the animal's head.
- This type has a natural crimp in its fiber.
- The fiber on this animal grows very similarly to the wool of sheep and grows out from the body instead of draping over onto the body as it grows.
- Huacaya Alpacas compose about 90% of the North American alpaca population.

Suri- Alpaca



Image courtesy of Only Pucara Knows Farms
<https://www.onlypucaraknows.com/2019-rising-stud-males>

Image courtesy of Only Pucara Knows Farms Image is cropped
<https://www.onlypucaraknows.com/2019-rising-stud>

- Unlike the Huacaya Alpaca, there is no crimp in the fiber of a Suri Alpaca.
- As the fiber grows it drapes over the animal's body.
- Suri Alpacas are estimated to compose about 15% of the worldwide alpaca population and are thus considered rather rare.
- The fiber was held in such high regard in South America that it was used as currency in some places.

Ccara (Classic)- Llama



Image courtesy of Alexas_Fotos
Photo has been cropped

- While other llamas have fiber on their legs, llama typed as “classic” have short hair on their legs, neck, face, and ears.
- While all llama types can be used as pack animals this type is particularly suitable for packs.
 - This type was actually developed to be a working animal before it came to America.
- Due to excessive breeding with heavier fleeced llamas, the Ccara has become more rare and has extensive rules to be approved for registration with the North American Ccara Association.
- It is fairly common for this type to seasonally shed their undercoat. They are also referred to as light wool llamas.

Curacao- Llama



Image courtesy of Llama and Alpaca Resource Handbook by the Ohio State University Extension**
Image is cropped

- The fiber on this type only goes to the knees on the front legs and the hocks on the back legs.
- While the wool on the neck of the llama is relatively short for this type, the body carries a respectable amount that is greater than what is carried on the neck.
- After the Ccara llama, this is said to be the most used llama for packing.
- This type is sometimes referred to as medium wool.

Tapada/Lanuda- Llama



Image courtesy of Llama and Alpaca Resource Handbook by the Ohio State University Extension**
Image is cropped; brightness and contrast altered

- The Tapada/Lanuda type has wool that goes all the way down to its ankles on all four legs.
- Unlike some of their cousins, these long fleeced llamas do not shed.
- These llamas often have fringes or tassels on their ears.
- This type is also referred to as heavy wool.

Suri- Llama



Image courtesy of M & M Llama Ranch
<http://surillamamarketplace.com/llamas-male.html>

- With this type, it often looks as if the fiber on their body is dreadlocked.
- The fiber of this llama does not grow out from its body but instead grows so that it drapes over the llama.
- This type of fiber begins to separate itself into cords (referred to as dreadlocks above) very early in the growing process almost at the skin and goes all the way to the tip of the fleece.
- The Suri llama and Suri Alpaca are extremely alike in their fleeces as they are both the same style.

Grooming, Shearing, and How a Halter Should Fit

When preparing your llama or alpaca for fair, travel, or just a walk around the farm it's important to know how to groom, shear, and halter your animal. Good hygiene of your animal helps keep the quality of its fleece higher, maintains animal health, and gives you an idea of how your animal is feeling while haltering can help you inspect the fleece.

Grooming

Llama and alpaca grooming is very similar. Blowing out, brushing, and hand picking the fleece are all things that are done to help prepare it for show, a sale, or for shearing. Below is a diagram on proper grooming practices for alpacas and llamas.

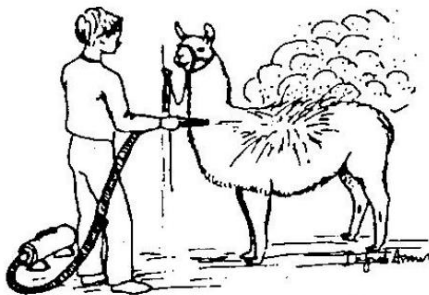


Figure 15a Blowing the llama to loosen fiber and remove particles of dust and hay

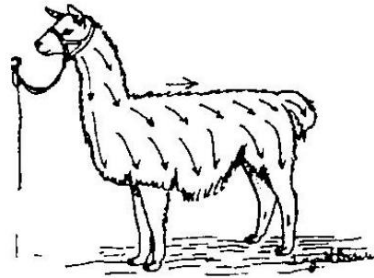


Figure 15c Direction of grooming

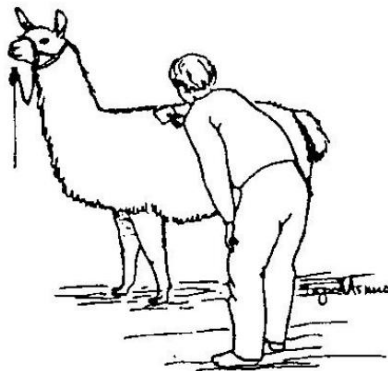


Figure 15b Grooming

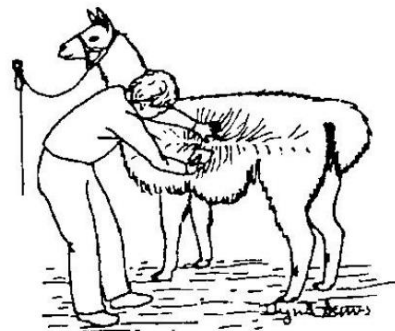


Figure 15d Deep Grooming: part coat parallel to spine and brush from skin outward. When this part line is clean, move up an inch or two and repeat. (Generally used only before a sale or show.)

Image courtesy of Sheboygan County 4-H Llama Project Handbook

Llamas and alpacas do not have hooves. They have nails and pads, which need regular maintenance. Improperly kept feet can result in pain, discomfort, and some health conditions. It is an important part of the grooming process. Below are diagrams on proper trimming of llama and alpaca nails.

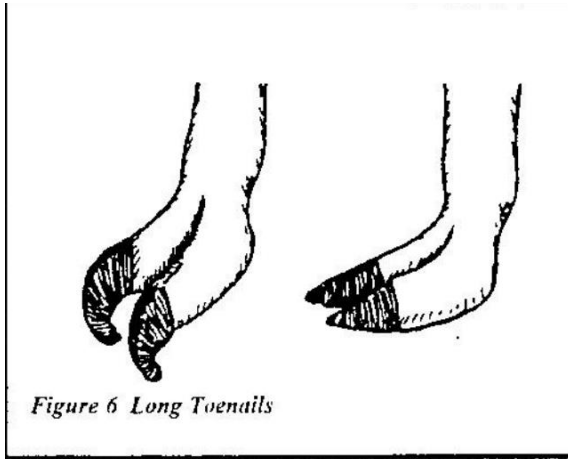


Figure 6 Long Toenails

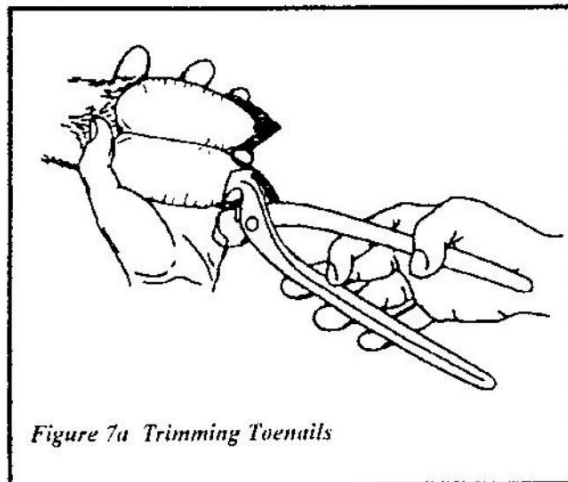


Figure 7a Trimming Toenails

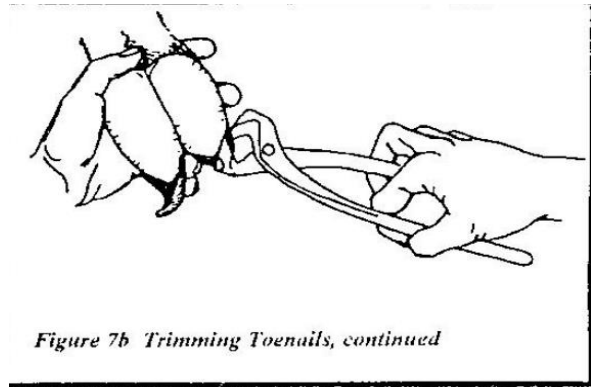


Figure 7b Trimming Toenails, continued

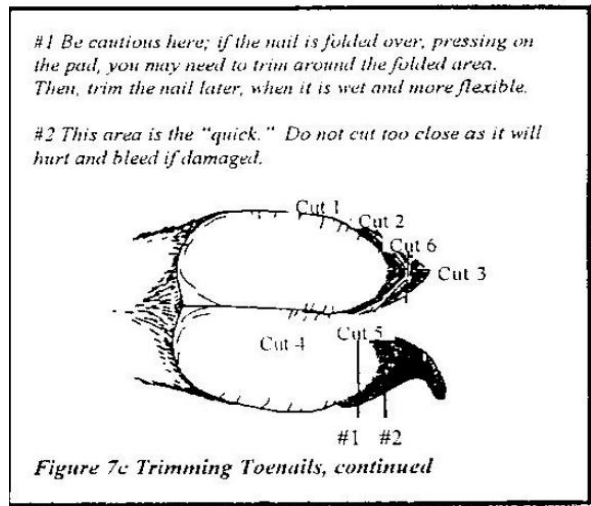


Figure 7c Trimming Toenails, continued

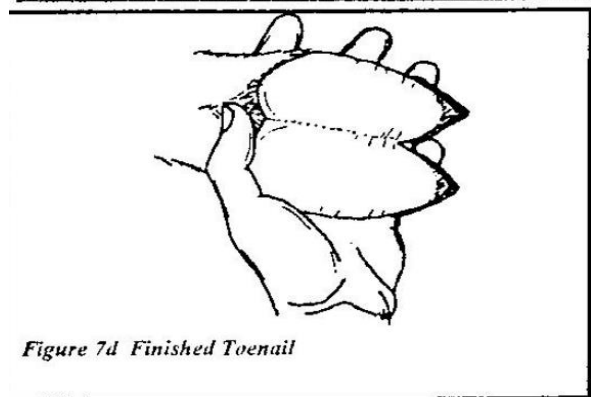


Figure 7d Finished Toenail

Images courtesy of Sheboygan County 4-H Llama Project

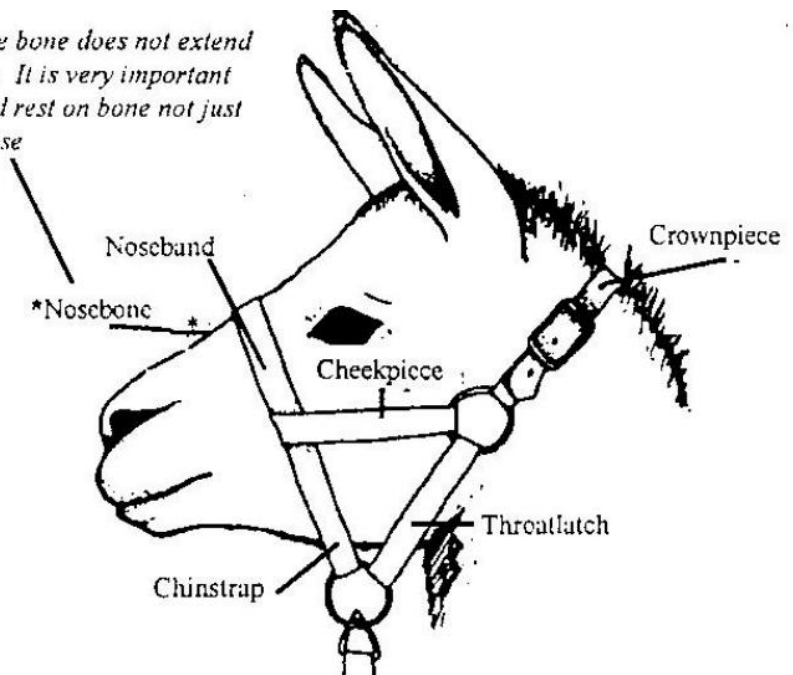
Shearing

There are a variety of ways a llama or alpaca can be shorn, such as a full-body shear, midsection only shear, and midsection and thigh shear. There are also a variety of methods that can be used for shearing such as scissors, hand shears, and electrical shears. Different shearing styles and methods are employed for many reasons and needs. A show shear may be different from a fiber harvesting shear which may also be different than a shear to prepare your animal for very hot weather. To determine which shear job and method of shearing is best suited for you llama and your needs you should contact your extension agent, superintendent, leader, or a local breeder who can assist you in determining this or can direct you to someone who can help you.

Halters

Halters are used to train, care for, and lead alpacas and llamas in a variety of settings. They are especially useful with veterinary care, shearing, and clipping toenails. They are very useful in controlling the animal. Below is a diagram of how a halter should fit and names of the different

**Note: The llama's nose bone does not extend much beyond this point. It is very important that the halter noseband rest on bone not just the fleshy part of the nose*



halter parts.

Images courtesy of Sheboygan County 4-H Llama Project Handbook

Fast Facts

- Llamas can run up to 35 miles an hour.
- Alpaca fiber is the second strongest animal fiber.
- Alpaca fiber is water-resistant and fire-resistant.
- When a llama and alpaca cross breed with one another the offspring is called a huarizo.
- One acre can support eight alpacas or four llamas.
- Llama feet have less of an environmental impact on the ground than the hiking boots hikers wear.
- Gestation of llamas and alpacas is almost a year and on average is about 360 days long.
- Due to male aggressiveness towards crias when a female goes into labor, females will often surround the female in labor to protect her and her cria from him as well as from predators.
- Unlike most animals, llamas do not lick their newborns clean. This is due to their tongues being too short. The birth membrane dries and falls off.
- Alpaca fleece is hypoallergenic and does not contain lanolin as sheep fleece does.
- Llamas and alpacas tend to give birth in the morning so the cria can have the whole day to dry off.

Getting Ready for Clackamas County Fair

The Clackamas County Fair is always held in August. Information pertaining to the show, such as type and specialty classes can all be found in the Clackamas County Fairbook:

General Information

- Members are expected to set-up, paint, and decorate their pen areas.
- Member ***MUST*** participate in showmanship.
- Good sportsmanship and herdsmanship are strongly emphasized.
- Members are expected to care for animals themselves, including shearing, feeding, and caring for the animal, both at home and at fair.
 - Club members or members from another club enrolled in 4-H may help with these tasks but the sole responsibility falls on the member.

Llama and Alpaca Classes

- Llama and alpaca camelids under six months of age must be accompanied by their mother.
- Females that are in their last month of their pregnancy are not permitted on the fairgrounds.
- Any male camelids two years or older must be gelded. The gelding process must take place a minimum of six weeks prior to fair.
 - Exceptions will be made at the discretion of the superintendent with input from a veterinarian.
- Hay nets are not permitted in the pens.
- Two animals per person are allowed.
- The exhibitor's showmanship animal must be shown in at least one performance class that is not showmanship.

CAMELID FOUNDATION TRAINING

These foundation skills are to be used in conjunction with the 4-H Camelid Advancement Program. Mastery of these skills will establish trust between a llama or alpaca and handler. This bond or trust helps insure a handler/animal team can successfully compete in showmanship or performance courses.

1. CATCHING AND HALTERING.

Acceptable: Stands still, presents face or side to handler.

Unacceptable: Presents rump, moves away, must be cornered, evades haltering, and shakes head during fastening.

2. REMOVING HALTER.

Acceptable: Stands still, lowers head.

Unacceptable: Turns head away, lifts head, jerks away, and backs up.

3. TYING UP/KNOT.

Acceptable: Safety knot, rope length of llama's neck, tied nose high, stands quietly. Unacceptable: Dances about, improper knot, lead too long, tied too low/high.

4. LEADING.

Acceptable: Moves with slight lead cue or voice command moves on loose lead.

Unacceptable; Pressure on lead to move, does not follow on loose lead.

5. DESENSITIZING.

Acceptable: Stands still. Allows patting, stroking, rubbing or touching with other objects on head and body. Includes inspecting ears, teeth and eyes.

Unacceptable: Moves, jumps, kicks, throws head or evades being touched.

6. BACKING.

Acceptable; Backs in a straight line with slight sue with lead or voice command until commanded to stop.

Unacceptable; Backs only with pushing or touching. Backs off or right or left not in a straight line.

7. CHANGE OF PACE.

Acceptable: Changes from walk to trot with slight lead cue or voice command. Continues trot until walk/stop command.

Unacceptable; doesn't change pace. Doesn't continue to change pace.

8. LOADING/UNLOAD.

Acceptable: Animal loads into a trailer or minivan by voice command while handler remains outside the vehicle. Unloads on voice command by stepping from the vehicle.

Unacceptable: Animal must be pulled or pushed into or out of vehicles. Jumps rather than stepping in or out. Handler must enter the vehicle.

9. PICKING UP FEET.

Acceptable: Handler faces rear of animal, picks foot straight up, animal stands quietly, lifts foot on command, and stands relaxed with foot raised.

Unacceptable: Pulls leg up and away from body, llama kicks, weights foot, jerks foot away, moves head/ neck around to threaten handler.

10. SHOWING TEETH.

Acceptable: Allows lip to be parted to show incisors and to show canines. Mouth open for approximately 3 seconds.

Unacceptable: Shakes, tosses, jerks head, backs up or moves away.

11. CHECKING EYE.

Acceptable: Allows upper and lower eyelid to be lifted without moving head.

Unacceptable: Shakes, tosses, jerks head, backs up or moves away.

12. HAUNCH TURN.

Acceptable: Turn full circle one direction then the other. Pivot on the inside back foot which must be kept within 36 inches of the start point. Keep forward motion.

Unacceptable: Pivots on outside foot. Moves pivot foot too far. Backs rather than keeping forward motion.

13. FOREARM TURN:

Acceptable: Turn full circle one direction then the other. Pivots on the inside front foot. Pivot foot must not move outside the 24-inch circle.

Unacceptable: Pivots on outside foot. Moves pivot foot outside the 24-inch circle. Backs rather than keeping forward motion.

14. SIDE PASS.

Acceptable: Using voice commands or minimal visual cues side step right and left at least 12 steps or 6 crossovers each direction. The moving foot must cross in front. The moving hind foot must cross in front or the feet be placed side by side.

Unacceptable: Moving foot passes behind stationary foot. Over use of visual or vocal cues. Pushing the llama.

15. SADDLING.

Acceptable: Secure animal. Approaches left side. Checks for debris. Places cinch(s) on the right side. Fastens front cinch first if using double cinch saddle. Checks cinch adjustment. Fastens cinch(s) on the left side. Animal stands quietly.

Unacceptable: Approaches right side. Puts saddle on backwards. Fastens back cinch first if using a double cinch saddle. Animal moves, kicks or lies down. Cinch loose.

16. UNSADDLING.

Acceptable: Secure animal. Animal stands still. Removes panniers, if any first. Loosens back cinch first if using double cinch saddle. Secures straps and cinchs. Checks animal for irritation.

Unacceptable: Does not secure animal. Animal moves, kicks or lies down. Leaves panniers in place or lifts over back. Loosens front cinch first if using double cinch saddle. Leaves straps, cinch(s) dangling. Fails to inspect animal for irritation.

CREDITS: This information was copied and pasted, courtesy of G. Pfefferkorn and A. Blancher, authors of Camelid Foundation Training. There is no current standing copyright on it.

Resources

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 26. <https://sheboygan.extension.wisc.edu/files/2010/08/2008LlamaProjectHandbook.pdf>
 27. <http://justfunfacts.com/interesting-facts-about-llamas/>
 28. <https://www.mnn.com/earth-matters/animals/stories/10-things-you-didnt-know-about-alpacas>
 29. <http://tonsoffacts.com/25-interesting-and-fun-facts-about-alpacas/>
 30. <https://onekindplanet.org/animal/llama/>
 31. <http://www.interestingfunfacts.com/facts-about-llama.html>

****4-H Reference Books:**

1. Llama and Alpaca Resource Handbook by the Ohio State University Extension

Note: These books are available to checkout or purchase from the Clackamas County 4-H Extension Office in Oregon City.

Other Print Resources:

1. QnA Llama and Alpaca.docx by Clackamas County 4-H Extension Office
2. 11 Llama Fun Facts by by Clackamas County 4-H Extension Office
3. Camelid Foundation Training by G. Pfefferkorn and A. Blancher