

Restraint of Llamas

by Karen H. Baum, DVM, & Emile F. DeKeyser, Huddleston, VA

Edited by RG "Barney" McClung, CAL-ILA and The Wool & Flax Llama Farm

Being able to control a llama is vital to performing routine maintenance and emergency treatment in a safe and effective manner. A procedure that is safe to both the llama and the handler will make the experience much less traumatic for everyone involved.

Halters & Lead Ropes

A good halter is essential to proper handling of llamas. If the halter can slip over the nose, the air flow will be obstructed and the llama will panic. If it is too big the llama can escape. The most versatile style crosses under the chin through the ring.

The lead line should be strong enough to withstand the force of a llama tugging when tied. Always have an extra lead on hand, as the lead rope tends to give way at the most inopportune times! They tend to break at the snap or where the clamp is. When the rope is braided back into itself or knotted, the problem of the clamp is eliminated. Wearing tight-fitting, leather gloves can give you a better grip and save rope burn. This is especially important with fractious animals or when performing an act which the llama does not appreciate.

Round-Up

Catching a llama requires patience and practice. Have the halter in your left hand, lead attached, with the lead going to your right hand approaching from the left side. Extend your lead on the animal and wrap your arm around the neck. Bring the halter from under the head and slide on without touching the nose. Catching the animal should be done in a small pen (12'x12' is ideal). A long rope can be utilized to corner a llama in a field to be haltered.

Earing

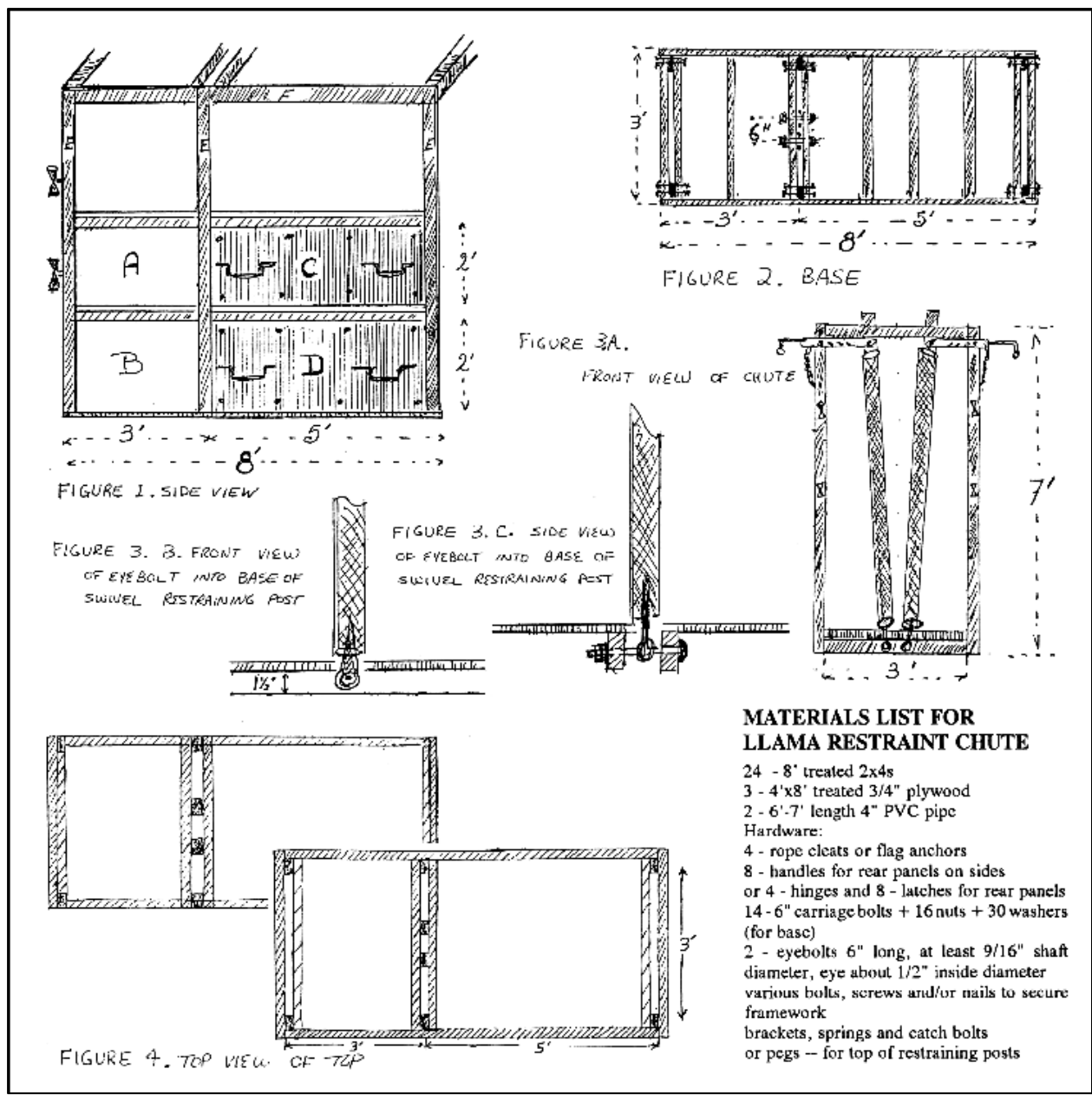
When the animal is fractious, or a painful procedure is to be performed, an ear can be squeezed and gently twisted. Run your hand from the withers up the neck towards the head to grasp the ear. Sudden movements disturb even the gentlest llama.

Drugs

Chemical restraint uses drugs off label as nothing is approved for llamas. There are many regimes which have been tried but I like a mixture of xylazine (Rompun) and butorphanol (Torbugesic) given in the muscle. The mixture of xylazine and butorphanol gives a much more predictable, and probably safer, sedation than xylazine alone. The "induction" and recovery are smooth. Often the animal will lay down at the higher dosages and will act oblivious to manipulation. The route of administration is convenient especially in a fractious animal.

Restraint Device

A well-designed llama chute is not only important but vital. Even if you, the owner, have only one or two llamas, a chute is essential to proper restraint for diagnostic, therapeutic and routine procedures. It is safer for, and easier on, the llama and the handlers. There are commercially available chutes but many people enjoy building their own custom llama chute. The following plans can be adhered to or modified to suit your needs. It is the result of building several chutes and working in numerous others. Each chute we build is slightly different to suit the situation and improve on the previous design. Wheels can be added to make it mobile if your work area surface is hard enough.



Basically, there are two uprights through which the head passes, the neck is between the shoulders are against. One or two lead ropes secured around rope cleats or flag anchors 3 feet ahead of the uprights prevent the llama from backing out. The total length of the chute is 8 feet and the width is 36-42 inches inside to allow a handler space to work on the llamas.

Be sure your lumber is treated! The urine and manure will quickly rot marine plywood. Many chutes remain outside or end up outside when indoor space is limited. Inclement weather, soiling, cleaning and disinfecting all lead to deterioration of the wood unless treated and sealed. Use of an agent such as Thompson's Water Seal brand waterproofing formula will greatly lengthen the lifespan of your chute.

Llama Chute Instructions:

GENERAL: Finished 2x4s are actually 1 ½" x 3 ½"3. Total length is 8 feet (96"); width is 36"-42" on the inside (add 7" for outside width); height is 6'-7' (72"-84") depending on your preference and where the chute is located. If you build the chute inside, be sure it will fit through a door to move in out. Leave extra inches to get under it to move it. Bolting the pieces together makes a stronger chute than nailing it.

SIDE VIEW: Put the plywood sides on the outside of the 2x4 frame. This will allow more hip room for the handler, with less squish factor! The 2x4s are turned so the narrow face is seen from the side of the chute. The strength needs to be directed at the animal inside the chute. The top 2x4 is tuned 90 degrees, so the wide face is observed from the side. The top 2x4s offer stability to the chute and should never come in contact with a llama (unless your llama does gymnastics in the chute, this activity is better suited to open fields!)

The two back panels (C&D) can be removable or hinged. When applying hardware allow for shifting and shrinkage of the lumber. Use 1/2" to 3/4" plywood for the side panels. The two front panels (A&B) are optional as llamas do not stand here. The 2x4s brace the front post and can act as handy shelves. There should be 2 feet between the horizontal 2x4s; the one on top of the side panels should be 4 feet high. The section where the llama stands should be 5 feet. The front section, where the llama's head and neck are, should be 3 feet. The rope cleats or flag anchors should be 3 and 5 feet above the ground on each side of the front of the chute. These are used to secure the llama. Make sure they are big enough to figure 8 your lead around them. Do not tie your lead. Make sure you can loosen your lead when the animal has all of his/her weight on the lead.

BASE: Decide on the width which will fit into your space, go through doors or load on a truck to move it, and which maximize on materials (keep the outside width less than or equal to 48 inches). Consider animal size plus space for the handler. We have found 27 inches is too narrow and 48 inches it too wide for inside width to comfortably work on the llamas without getting squashed or slammed around too much. Too narrow is too tight. Two wide allows for momentum on the sideways body slams.

Put floor joists (2x4s) at approximately 12-inch intervals. 2x6s can also be used for floor joist. They need to be double and approximately 1 ½" to 2" apart where the upright posts are secured (3 feet from the front and at the ends). Bolt the posts in place as well as the eyebolts in the bottom of the restraining posts. Use two 6" carriage bolts (plus two washers and u nut per bolt) on each permanent upright (total of 12 bolts). Use one 6" carriage bolt through each eyebolt in the bottom of the restraining posts which swivel. Each of these bolts need three washers and two nuts.

Use 3/4" treated plywood on the floor. This can be covered with a rubber mat or indoor-outdoor carpeting. Be sure to apply a water sealant before attaching the carpet or mat. A scale can be built in or placed on top of the floor of the chute. Make sure the surface of the scale is not too slippery. Try to eliminate spaces where the llama's feet can get caught between the scale and the chute. Don't forget to cut holes in the floor for the eyebolts to go through (on the bottom of the restraint posts which swivel).
FRONT VIEW: Place rope cleats or flag anchors 3 feet and 5 feet above the floor on the front of the chute. Make sure they are large enough to accommodate figure 8's with your lead rope. One or both restraint posts (three feet from the front) should swivel. The bracket pictured is easier to use than pegs. If pegs are used, big (1" diameter) pegs work better than smaller pegs. The bracket can be either side or both, whatever tickles your fancy.

Shave the edges of the 2x4s to fit inside the 4" PVC pipe. The PVC pipe should be slightly shorter than the space from the floor to the bottom of the cross braces on top, so the post can swivel to the side without catching. The eyebolts should set 3"-4" into the bottom of the restraint posts which swivel. Have a good 6" center-to-center between the eyebolts. See the diagram for more details.

TOP VIEW: All 2x4s will be turned such that the narrow side is viewed from the top. The top of the restraint posts which will swivel between two cross braces. The end cross braces can be double to secure the upright posts. They can be as seen on the diagram or separated so the upright posts come between them (as with the posts 3' from the front). The side and/or end top braces can be located on the outside of the upright posts. Alternately they stay in line with the outside edge of the upright post. This can be individualized to your taste.

SUMMARY: These plans should give you a place to start. Most any restraint chute is better than none. No matter how elaborate you get, your investment will be returned in time saved handling the llamas. Your work with them will be easier and more pleasant. You will enjoy your llamas more. Your llamas will be easier to work on and less stressed. It may take a few times for them to become comfortable in the chute. Try to do pleasant procedures in the chute as often as possible. Feeding a treat in the chute makes it a more pleasurable memory for them! Relax and enjoy!

A good general reference is ***Caring For Llamas: A Health and Management Guide*** by Clare Hoffman, DVM and Ingrid Asmus, 1989. It is published by: Rocky Mountain Llama Association, 168 Emerald Mtn. Ct., Livermore, CO 80536.

Other references include:

Fowler, M.E., ed. ***Zoo and Animal Medicine***. Philadelphia: WB Saunders Co, 1978.

Johnson, L.W., ed. ***Llama Medicine*** in Vet Clinic N. Am., Food An 5(1): 1989.

Fowler, M.E. ***Medicine and Surgery of South American Camelids***. Ames, Iowa: Iowa State University Press 1989.

The following is an alternative chute design from Dr. Fowlers book, ***Medicine and Surgery of South American Camelids***.