Well-planned barns and pastures, and innovative use of high- and low-tech gadgets can make life on the farm mucH easier. If you have any helpful "husbandry hints," Alpacas Magazine would love to hear from you.

Alpaca Barns, Pens, and Pastures

lan for Success" has been a principle guiding many people to happy and prosperous lives. That time-tested adage has great application for setting up or expanding an alpaca ranching facility.

This article will discuss things to consider for designing an alpaca ranch or expanding existing facilities. Considerations will include site location, general layout, barns, barn interior features, exterior pens, pastures, and quarantine facilities.

Site Location

Farms and acreages all have characteristics that are unique to that property. Many sites can work well for raising alpacas, but some are either currently not developable or have serious limitations for future expansion possibilities.

Consider the following in selecting a site for the barn, pens, and pastures:

- Is the area zoned for raising livestock and specifically alpacas? Check your state and local zoning laws.
- 2. Are neighbors so close to the site that your operation may affect them enjoying their property?
- 3. Is there adequate access to an all-weather road system?
- 4. Can you secure the property if you choose to do so?
- 5. Is the land well-drained, yet level enough to work without incurring significant earth-moving expenses?
- 6. Can utilities be made available to the site (water, electricity, phone, Internet, sewer, etc)?
 - Can you develop an adequate drive way access on the property? Don't forget about long transport trailer maneuverability.
 - 8. Is the site protected from harsh winds in the winter? If not, can you design plantings to accomplish this (for cold climates)?
 - 9. Is there adequate air flow to the area for cooling in the summer (for warm climates)?
 - 10. Do you understand environmental regulations governing livestock operations for that site?

Features of barn structures that should be considered include large, open, attached shed roof overhangs, screened windows with generous air flow, water, electricity, large overhead door for equipment access, single entry/exit walkthrough door for people, etc.

General Layout

The barn is the hub or central feature in the design process. It should be located near utilities, have an all-weather driveway with access to a road system, and be somewhat in the middle zone of the developable land on the property. The



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The alpaca chute and scales should be incorporated into the interior barn pen design. The interior panel configuration should facilitate a systematic movement of alpacas from all pens to the chute.

barn should be situated to allow pen and pasture layout on three sides.

Design the general layout – barn, pens, and pastures to maximize future expansion possibilities. Starting out, you can build pens and pastures off of just one side of the barn. Later on, you can expand your operation and place pens and pastures off the second and third sides of the barn if you desire.

The Barn – "Grand Central Station"

A barn serves many purposes for alpaca ranchers. A well-designed barn provides the alpacas a place to seek protection from precipitation, the sun, and harsh winter winds (in some climates).

Barns also provide alpaca ranchers with a place to: store equipment used in working with alpacas, store feed for the alpacas, and an area for handling the alpacas out of the weather. A well-designed barn will give the alpaca rancher the option of handling alpacas inside to administer monthly shots, trim toenails, feed, breed alpacas, shear and handle fiber, train alpacas for shows and leading, and conduct veterinarian procedures such as blood draws and ultrasounds, etc.

Features of barn structures that should be considered are:

- 1. Large, open, attached shed roof overhangs (at least 18 feet of overhang out from the barn, especially in cold climates, so snow doesn't accumulate near the access point to the barn)
- Well-ventilated barn interior (lots of windows and doors for generous air flow)
- 3. Insulated roof (keeps the barn cooler in summer)
- 4. Water service to the barn
- 5. Electrical service inside the barn
- 6. Large overhead door(s) for equipment access
- Numerous walkthrough doors for alpaca access to pens
- 8. Single entry/exit walkthrough door for people (better security)
- 9. Exterior walls that are also finished on the inside of the barn
- 10. Sidewalls minimum of ten feet in height
- 11. Overhang roof clearance minimum of seven feet
- 12. Adequate roof (or attic) venting

Barn Interior Features

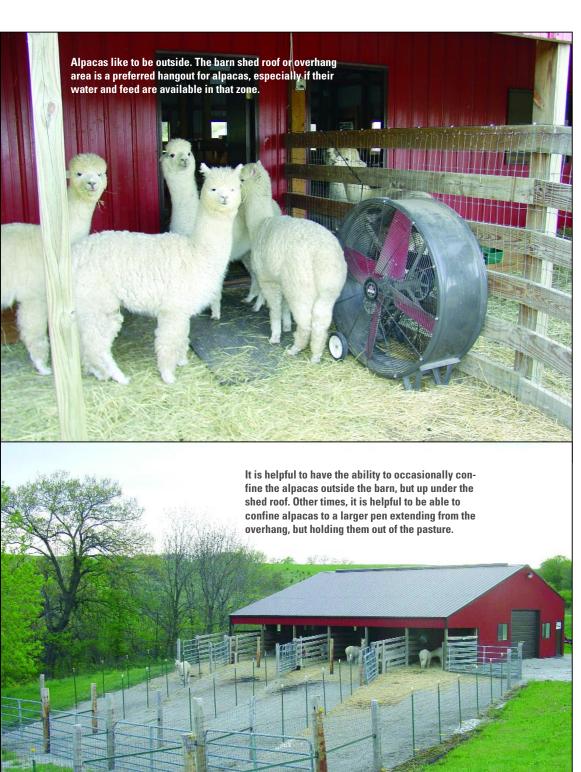
The floor plan for the barn interior should include consideration for the following areas: interior pens, feed storage, equipment storage, fleece shearing/handling, climate controlled stall, and a chute.

It is important to have the capability to hold alpacas in separate groups inside the barn. To do this, interior stalls are used and coincide with pen configurations on the outside of the barn. Interior stalls can be made of steel pipe panels or wooden board fences. Both need to be firmly supported with posts or designed to be selfsupporting. Numerous walkthrough gates are required for ease in handling alpacas. One series of panels should be configured to operate in harmony with the alpaca chute located in the barn. The panel configuration should facilitate a systematic movement of alpacas from all pens to the chute.

Feed storage includes both hay and commercially prepared bagged feed. Bagged feed needs to be keep clean, dry, reasonably cool and away from rodents. This can be as simple as storing several bags of feed in metal garbage cans or as elaborate as building a separate feed storage room.

Hay must be stored out of the weather in order to keep it in prime condition for feeding to alpacas. Hay storage does take considerable space. If you purchase hay all at one time or harvest your own hay, you need to have a large area for storing the hay throughout the year. Some ranchers have their main hay storage site away

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from the alpaca barn. Others make several carefully-timed purchases and deliveries of hay throughout the year. With these methods, the amount of hay stored in the alpaca barn is only that which is needed to get by until the next delivery (plus a few weeks' supply in case of inclement weather). Other alpaca ranchers store all of the hay needed throughout the year in their alpaca barn. Areas for several different types or qualities of hay (grass, alfalfa, etc.) may be needed.

An area for equipment storage is most helpful in the barn. Alpaca ranchers accumulate many different types of specialized equipment and ready access to that equipment is essential. (See Alpacas Magazine, Summer/ 2003, "Top Ten Lists of Equipment for Alpaca Owners") Equipment can include veterinarian kit, neonatal kit, forks, brooms, shovels, halters and lead ropes, wheel barrow, buckets, feed tubs, fans, shears, tooth trimmer, etc. Storage shelves, wall hooks and benches all need to be incorporated to efficiently store the equipment.

The alpaca chute and scales should be incorporated into the interior barn pen design. (See *Alpacas Magazine*, Spring/2004, "Chutes for Alpacas") Alpaca scales can be stored in the alpaca chute, ready for use.

One zone of the barn should have an open area that can be used for several purposes: shearing and fleece handling, alpaca training, alpaca trailer storage, and ranch visitor reception. For shearing day, a shearing table or floor mats can be placed in the



middle of the area. After shearing day, the area can be used for halter training and handling alpacas in a mini-showring setting. The area can also be used for storing the alpaca trailer when not on the road. When ranch visitors come to the ranch, this area can serve as the show area for introducing alpacas to visitors.

The barn should have a completely enclosed room that is insulated and can be heated in cold climates or air conditioned in extremely hot climates. This area is referred to as a climate controlled stall. (See *Alpacas Magazine*, Winter/2005, "Climate Controlled Alpaca Stalls")

Barn floor materials in the alpaca pen areas can be lime screenings, rock chips or rubber horse stall matting. Floor materials in areas where hay is stored can be rock, lime screenings, or concrete. For areas where people will be working or equipment is stored rock chips, rubber stall mats or concrete work very well.

Outside Pens for Confining Alpacas

Alpacas like to be outside. The barn shed roof or overhang area is a very popular hangout for alpacas, especially if their feed and water are available in that zone. It is helpful to have the ability to occasionally confine the alpacas outside the barn, but up under the shed roof. Other times, it is helpful to be able to confine alpacas to a larger pen extending from the overhang, but holding them out of the pasture. Examples of this include confining alpacas for winter, scheduled veterinarian visits, pasture cleaning, renovation, mowing, etc. These outside pens should have sturdy posts and panels, large access gates for alpacas and equipment, and all-weather surfacing such as chipped rock or lime screenings.

This is also a good area to install heated, automatic waterers. The waterers can be protected from precipitation, but are not directly inside the barn. (See *Alpacas Magazine*, Autumn/2001, "Water Your Alpacas-Automatically")

Alpaca Pastures

Pastures for alpacas can be of many different sizes, shapes, and grass species. Fencing around the pastures should limit the alpacas to that pasture and exclude all other alpacas and predators from that pen. (See *Alpacas Magazine*, Summer/2002, "Alpaca Predator Resistant Fencing") Flexibility is very important in managing pastures. A series of gates provide options for directing alpacas from pens to various pastures is ideal. Gates should be wide enough to allow equipment for mowing,

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manure management, and maintenance. Pasture runs should become narrower as they approach the barn to allow for easily herding the alpacas.

Quarantine Facility

All alpaca ranchers should develop a plan for including a quarantine facility in their ranch layout. To manage various disease risks, a properly-designed quarantine facility that is operated under a carefully-managed alpaca transportation management plan is becoming increasingly important.

An isolated barn and pen setup that is away from the main alpaca operating facilities can be used to hold alpacas that are coming to the ranch for breeding or agistment, newly purchased alpacas, and alpacas that are returning to the ranch after being bred or shown at alpaca shows.

Setting up an alpaca ranching facility can be challenging and rewarding. Planning for success can provide you with flexible alternatives when that time comes you decide to take your alpaca ranching facilities to the next level. Have fun planning out your ranch.

Bill and Sherri Duey operate Southern Iowa Alpacas ranch located in the hills of Southern Iowa 60 miles southeast of Des Moines. They specialize in raising Accoyo herd sires. They have incorporated innovative features into their alpaca ranch and conduct seminars on business planning, animal selection, and ranch setup. They also enjoy helping existing ranchers learn about new products and techniques for fine-tuning their operation. View their site at www.southerniowaalpacas.com or contact them directly at alpacas@southerniowaalpacas.com.