

# **SETTING UP YOUR ALPACA FARM**

## **Introduction**

One of the primary topics we are asked about when prospective alpaca owners come to visit us is how we chose to set up our alpaca area, what we like about the set up, and what we'd do differently if we had to start all over again. Making the investment upfront to have an organized layout with the proper tools on hand will save you time and money in the long run, and allow you to focus on the most important aspects of your business – your breeding program and the marketing of your products! The information below sets forth some suggestions and features to consider.

## **Considerations - Overview**

- Acreage and number of pastures
- Availability of alpaca transporters and other large trucks to get in and out
- Fencing
- Types and number of shelter for your alpacas
- Water availability
- Barn set up
  - o Storage for hay and feed
  - o Catch pens and enclosures
  - o Stalls and Breeding area
  - o Biosecurity
  - o Medical room/office/equipment storage
  - o Shearing area
  - o Equipment

## **Acreage and Pastures**

When looking at the amount of space you will need and how it will be divided, you will first need to determine if your alpacas will be on dry lots or if they will have access to pasture. In most parts of the country that decision is made by virtue of the amount of rain and grass that naturally occurs in your area, as well as the amount of land you have to allocate to these creatures. Either arrangement comes with its pros and cons – for instance, dry lots require you to purchase hay year round, are more likely to devalue the fiber due to year-round hay and dirt contamination, and take the alpacas out of their natural environment, but these lots generally have fewer parasite issues, allow you to monitor food intake more closely, and allow you to have more alpacas in a given area.

- If you are planning to put your alpacas on pasture, you can have up to seven adults to an acre. Our thought is that if you have only 2-3 alpacas, then an acre is actually too much - consider dividing that acre to allow for rotation.
- You should definitely plan to rotate your pasture usage, so you will need at least two acres for every 4-7 adults. Rotating pastures reduces parasite infestation, keeps your grasses healthy, and your alpacas happy!
- If you are a breeding farm, you will need to assume four groups of pastures – 1 group for males 2 yrs and older, one group for males 1-2 years of age, one group for adult and yearling females, and one group for weanlings. So, a total of eight acres. This is something we did not fully understand when we set up our pastures, and as such, we only have six pastures available. While our set up certainly keeps us motivated to sell alpacas and not overcrowd, we would have it a bit easier if we allocated two more acres!
- If you are going to use dry lots, one acre, divided, can accommodate several groups of alpacas. You will simply need to make sure you leave enough room for the animals to relieve themselves and move around freely. Many of the dry lot alpaca farms that we are aware of have their entire operation – house, barns, and alpaca lots on five acres or less. Recently, we visited a dry lot farm that had 8 acres allotted to the alpacas and they comfortably had 50 alpacas in that space.
- If you are interested in only running a fiber operation, without any breeding, then we would recommend grass pastures to minimize the cost of feeding and fiber contamination. We would recommend larger pastures to accommodate large herds of males, and we would recommend a minimum of three pastures to rotate through to ensure maximum grass nutrition and minimum parasite infestation.
- No matter what type of herd you have, allow yourself room to grow! The growth may come from your own herd, from starting up a new type of herd (breeders starting fiber herds and vice versa), or from offering boarding (and then watching your boarder's herd grow!).

### **Space for Trucks and Other Heavy Equipment**

We put this section next because it tags onto the calculation of how much acreage you will need, and it is something that people often don't think about until it is too late. If you have alpacas, you are going to encounter large equipment operators – it may be alpaca transporters bringing animals to and from your place, it may be large flatbed trucks delivering hay, dump trucks bringing limestone bedding, etc. In any event, you will need to ensure that your driveway is wide enough to allow them to turn in, and you will need to consider where and how you will have them turn around. Having easy access for them will minimize damage to your property!

### **Fencing**

Fencing serves two purposes – to keep livestock in, and to HELP keep predators out. We emphasize the word “help” because if a predator really wants in, it is going to come in. Whether it goes over the fence, through the fence, or under the fence, it will get in if it really wants to.

We spent a fair amount of time talking with various owners about the types of fencing they used, why they used it, how effective it was, etc. We ended up with a combination of fencing – largely wood and no-climb fencing, with a bit of barbed wire thrown in. We have found that all three work well to keep the alpacas in. The barbed wire has not been a problem with our animals’ fleece, which we had worried over, but it is also the least useful in keeping predators out. We would not typically recommend it for the latter reason, and we only have it because it had recently been installed prior to our alpaca endeavor, and we didn’t want to have to take it down and re-fence.

We have heard of alpacas getting their heads stuck between wood fencing planks, and we have heard of alpacas getting their feet twisted in straight wire fencing. While we have not had any of these problems (yet), we would probably recommend the no-climb fencing to new alpaca owners as the safest for the animals and the most likely to deter predators from coming in.

One thing we would point out, though, is when you are setting up your fencing, plan to install enough gates that you can have easy access from one pasture to the next, and plan to make your gates wide enough to accommodate tractors and other large farm equipment.

### **Types of Shelter for your Alpacas**

The first thing to understand about alpacas is that they don’t like rain and snow! Unlike sheep, who seem to have no problem with precipitation, alpacas like to stay dry – so you will definitely need to have some type of shelter available for your herd in each pasture. The other factor to keep in mind is the heat. Alpacas do not have efficient mechanisms for cooling off, and as such, they need some assistance. Having a shelter that allows fans to be set up is important – consider where you will position the fans (high up or low to the ground) and where the fans can be placed to have the greatest impact.

***Three-sided shelter*** – this is the simplest type of enclosure and works moderately well for keeping out rain and snow. The downside to this type of shelter is its lack of air flow during the hot summer months, and it doesn’t shelter the animals from strong winds in the winter. Our experience has been that these types of shelters actually trap the hot summer heat and it ends up being hotter in the shelter than outside. If you opt for this type of shelter, consider using it only for Spring

and Fall stalling (be sure to position the open side away from directional winds, and/or consider some doors or windows that can be opened in the summer time to allow air flow. At the very least, you will want fans in this type of shelter!

***Four sided shelter*** – this type of shelter is ideal for the winter months. It keeps out the winter winds as well as the snow. Again, without proper ventilation, it can be a hot-box during the summer months, so make sure you have the proper air flow.

***Barn*** – we are setting this apart from the “four sided shelter” only to distinguish between a simple, four sided building and one with a more elaborate interior. Also, as we think of barns, they tend to come with multiple doors/windows on all four sides, and thus, have good ventilation. A barn will be the most expensive to construct and typically take up more space, but it also allows you to have everything you need at your fingertips. We find that a barn is best for animals you want to keep close – pregnant females, weanlings, sick animals, etc. (We will discuss the barn set up further in this reading). While barns are typically larger than a four sided shed, they can usually shelter multiple herd types (females, weanlings, etc), from multiple pastures. For our set up, we have two barns – one is smaller and sits between two pastures, and the second is larger and offers shelter from four pastures.

Depending on the way your land lays out and how you divide your pastures, you may be able to have all of your pastures feeding into one barn – essentially in a pinwheel fashion. Our land was set up in an “L” shape, and as such, we needed two barns to offer shelter to all the animals. However, we have not found this to be the “norm” with small farms.

### **Water Availability**

This is clearly an important piece to consider and build into your plans. First of all, you will need to decide if you want automatic waterers or if you want to be responsible for watering your animals each day. We have automatic waterers, and while they probably sound like a “dream”, they can come with their own “issues”. Ours inevitably freeze at least once each winter. We have all kinds of insulation in and outside of them, but they freeze. We also find that the mechanisms on them periodically break, and if you aren’t there to see the break right away, you will have a big water bill at the end of the month! (We have two different brands, and others in our area have similar issues, so we don’t think it’s just our problem or bad luck.) That being said, they obviously have advantages – they actually do work most of the winter and you don’t have to worry much about the water in the actual bowl freezing as the heating elements seem to be very reliable. In the summer time, they work great. And there is minimal water wastage.

If you are going to use the automatic waterers, we would recommend having a manual back up though – just in case. Also, in the event of a sick animal, you may want to watch the water intake closely, or in the case of treating for coccidia, you may want to add Corrid to the daily water supply – in either case, manual watering works best.

Another question that frequently comes up from our alpaca visitors is “should we put the waterers inside or outside?” Well, if we had it to do all over again, we would have put ours inside the barns. However, not too long ago, we had an alpaca friend tell us that theirs were inside and if they had it to do all over again, they would put theirs outside! You know the adage – we always want what we can’t have. Our reasoning for wanting them inside is that there are just times that any alpaca owner will want or need to keep their animals in the stalled area, and of course the animals will need access to water! This is one of those times, for us, when the manual back up comes in handy as our water spigots are located inside. So, from our vantage point, we would tell you to put your waterers in the barn! But ask around and make the best decision for your set up.

### **Barn Set Up**

The most important thing we can tell you in this section is that there are probably as many barn set ups as there are alpaca owners, and there are not a lot of “rights and wrongs”. In fact, each of our barns has differences, by design, and we like each of our barns equally. Visit a number of farms and determine for yourself how you want to set yours up. A few pointers we can give you though that you will probably see in every barn:

*Hay and feed storage* – in each barn, you will need a good amount of space for hay and feed. In one of our barns, we ended up using an extra stall we had – 12’ x 12’. If you’ve got a high ceiling, consider building a hay rack to store your hay. Also, it is wise to have a set up that accommodates some different hay bale sizes which we discuss below. You will need to figure out how you will get the hay into your barn – do you have an aisle way and is it wide enough to accommodate a truck or tractor? How will you get your hay into the loft and back down? Lastly, it would be ideal if you can throw the hay down into the feeders from the loft. If not, have an area of the barn on the main level where you can store some bales for daily feeding. Generally speaking, there are three sizes of hay bales:

- Small, square bales (about 60 lbs each) - The small bales will fit above your stalls and they are easy to handle, so many alpaca farms use them. However, baling them requires manual labor and as rural populations around the country decline, it becomes more difficult for hay growers to find workers to help put up those bales.

Also, consider that the most important aspect to the alpaca owner, when it comes to buying hay, is finding a grower who is reliable, and who has consistent, high quality hay. We recommend that you do not limit your barn set up to only accommodating small bales as you will find it discouraging to finally locate a grower you like and then have to pass because he has something other than small bales!

- Large, square bales (about 500 lbs each) – This is what we get and there are certainly some cons to these bales, but to our point above, we love the hay we get every year from our grower and this is the only size he offers, so we've learned to make the best of them. The advantage to growers is they don't need manual labor to help them put up the bales. The advantage to the livestock user is that they maximize storage space given that they are square. At 500 lbs, they do require a tractor (with a spear) to put them in the storage area, and you will want at least some, at any given time, near your animals on the main floor. They come apart in flakes, just like the small bales, and we generally find standing them on end is best for easily peeling of the individual flakes. Some farms we know with larger groups of animals will put one whole bale out at a time and just let the animals work it down over a matter of weeks. Again, though, if you think you might want to do that, make sure your stalls can accommodate a tractor as you will not be able to move these into the stall yourself!
- Round bales (about 1200 lbs each). - These are most common for farms that grow hay for their own livestock consumption. Because these bales are round, they do not transport efficiently, nor do they store efficiently, and as a result, growers who sell the majority of their hay don't generally use this type of bale. The size of the round bales can actually be reduced from 1200 lbs, so if you have someone nearby who bales hay for themselves and you think their hay is of good quality, you might want to suggest that they produce a few small round bales for your operation.
- Feed Storage - We keep our feed in old freezers that our local appliance store was looking to get rid of. These freezers keep the mice out, keep the feed dry, and they can hold a goodly amount of feed at one time. The latter point is significant to the extent that buying feed in bulk saves money. So plan to make room for some means of clean storage.

***Catch pens and enclosures*** – this is a critical part of any alpaca set up and we think that most alpaca owners would say that you can't have enough panels and catch pens! Remember that alpacas are prey animals – their instinct is always to move away from whatever is trying to catch them – including you. As such, having small pens, say 6' x 6' or 8' x 8' that you can herd them into, and even aisle ways through which you can herd them into the pens will be a great feature

of your barn. We recommend at least two catch pens in each barn. Over time, you will become better at catching your animals in their regular stall area, but you will find these pens to be real life savers when you start out!

An easy set up is to install two gates, on perpendicular walls, that normally lie flush with the wall. When you need to catch an animal, simply open the gates wide, herd a few animals down to the pen area, and close the gates to create your pen.

Also, plan to have loose livestock panels available to set up temporary catch pens. Events at which you might use these include marketing events on your farm and shearing day (which we'll discuss later).

***Stalls and Breeding Areas*** – We have different stall set ups in each of our barns, and both have pros and cons.

- In our small barn, we have actual horse stalls – the barn is 36' x 48', and on either side, we have a stall that is 12' x 24'. So, large enough for a small herd of animals to move around. We also have two 12' x 12' stalls on either side. One of those stalls is used for our feed and hay, and the other is used as a breeding stall and/or for newly arriving alpacas. The stalls are fully enclosed and have sliding doors to contain the animals even more, if we want. Most often, we leave the doors open and simply use gates so the animals can see into the aisle way. The primary “pro” to this arrangement is that for males, we can reduce their visibility to the girls (cuts down on fighting), and we can contain a male in a stall when we bring a girl in for breeding. Some males get rather worked up when the female enters the area, and having substantial walls to your stalling area will give you piece of mind that your guy is safe. The “con” is that the animals don't have good visibility into the rest of the barn on a day to day basis. Because these are prey animals, they like to know everything that is going on around them, and we find that the animals we keep in these stalls are a bit more “jumpy” when we enter the barn. Also, alpaca visitors cannot readily see into the stalls.
- In our large barn, the wooden portion of each wall is lower and the animals have greater visibility out, while visitors have greater visibility in, which is a “pro”. Each stall is 15' x 15' and we have two stalls on either side of the barn. The “con” is that males jumping up would have a greater likelihood of getting a foot caught between the bars, and the males have been known to break the gate latches, etc.

We have a designated breeding area in each barn. Some of our males are very easy going with the girls and we can readily bring them up to the large barn. However, as mentioned before, for those males that get worked up, we tend to rely on the more substantive

stalling of our small barn. Overall, we would recommend that if you only have one barn, that you designate one stall for breeding and make sure that the enclosure is sturdy, with wooden walls and doors. For the rest of the barn, having an open air environment will allow the alpacas to feel more comfortable and secure in their surroundings.

A couple of other important features to stalling that we should mention:

- **Flooring** – we have concrete floors in both barns and just love them. They are easy to clean, they keep the animals cool in the summer, and perhaps best of all, most of our alpacas keep their nails worn down walking on the concrete for even limited periods of time each day. In the winter, we put down plenty of straw bedding to allow for warmth. The only “con” we have seen is with one of our older females. She spent almost her entire summer standing in front of a large fan in the barn, and with no give on the floor, she appeared pretty stiff by August! We have a drain in each stall in our small barn and only a slightly sloped floor in the large barn that sends the water outside. We would recommend the drains – they prevent the water from flowing outside and creating a muddy mess just outside the barn door.

Note: Some farms we’ve been to use crushed limestone. We use that in our overhang area, but really try to keep it to a minimum. We have found that the limestone works its way into their fiber, and wreaks havoc on it – drying it out, reducing luster, etc.

- **Feeding troughs**
  - o For feeding grain, we use PVC pipes, cut in half and screwed into the walls. The important “take away” on grain feeders is to make sure you have enough of them. When alpacas feel squeezed into a small eating area, they are more likely to eat too fast and end up choking, which can be a real problem for these animals. Giving them room to spread out and feel that they have an eating area of their own will reduce possible trouble.
  - o For hay, we have hay troughs attached to one wall in each stall. Ours are low to the ground and have a small grill area on the front of the trough for crias to eat from. However, we have seen a number of good ideas for hay feeders – very tall feeders with dowel rods that allow the alpacas to pull hay out readily, free standing hay feeders, etc. Be sure to look at each farm’s feeding system when you visit as there are lots of ingenious ideas that people have come up with that may work best for you.
- **Barn Overhangs**

- These are absolutely critical in our opinion. With fencing placed around the vertical support beams, these overhangs allow you to keep your alpacas in during rain, snow, and ice, while allowing them fresh air and sunlight. We generally pen our animals into smaller spaces during the winter months and take away their access to the fields. Having the enclosed overhangs, along with access to the stalled areas inside, allows us to give the alpacas plenty of space and yet not worry about them when we are away!

### **Biosecurity**

Two important things to consider for biosecurity – 1) have a designated area, away from the other alpacas, that can be used to contain new alpacas coming onto the property. This industry does a lot of transporting, showing, etc. and there are all kinds of viruses and other sicknesses that these guys can pick up. So don't assume the new arrivals are healthy just because they come from a "good farm". Designate a place where they can be held for 2-3 weeks before releasing them into the broader herd. 2) we strongly urge you to put down some disinfecting pads or a low lying container filled with disinfectant that visitors can step into/onto to disinfect their shoes. You just never know where people have been prior to your place, and there are certainly viruses that can come into a new area via the soles of shoes.

### **Medical room/Storage/Office**

While these obviously have different uses, the important take away is to build enough room into your barn plans to accommodate any or all of these rooms. We have an office and a storage area, but no medical room. Our office is able to serve as a medical room to the extent that we have a small refrigerator, plenty of shelving, and wall heaters that keep medicines at room temperature (along with our computer!). We could not live without this extra space, and we know that most alpaca farms have similar set ups and all are well used. With all of these rooms, make sure you build in plenty of shelving and cabinetry. You will be amazed at how quickly those shelves fill up!

### **Shearing Area**

Having a large, clean, well lit area to perform the task of shearing is absolutely critical. Whether you are a seed stock breeder, focused on genetics and not so much on fiber production, or you are a fiber producer primarily, you will need this area as the fiber does pay for some of the bills (if not all of them)!

Completely fortuitously, we have ended up with a great shearing set up for our size farm and we will share it with you. Quite simply, we use the aisle way of our small barn –

which is about 12' wide – for the actual shearing. Additionally, we use a stall area (12x12) that we ended up leaving open when we built the barn (was going to be a shower stall area for our horses but never shook out that way). While our aisle way is 48' long, we actually only use about one third of that for the shearing process.

Because we generally run only about 20-30 alpacas in any one season, we use only one shearing station. However, with the 48' space, we could set up two stations if we wanted. We use a shearing table which allows us to not have to spend the whole day bending over and ruining our backs! We set the table up right at the opening to the aisle way, and we have a 10' sorting table set up in the stall area. Each alpaca is led in, put on the table, shorn, and the fleece is delivered to the person working the sorting table for further note taking, sorting, and packaging! Doing this in the barn, with all the lights on, and having the animals all penned into areas under the overhangs or in the barn, allows us to keep all the animals dry, the fleeces clean, and the shearer happy! Our set up is simple, but it has worked out quite well for our herd size.

Be sure that you allow for plenty of electrical outlets. While the shearer only needs one outlet, this will give you great flexibility in where you set up the shearing station. Additionally, as you visit farms, ask the owners where they shear, what they like about their set up and what they would change. Again, each set up is different, but including a shearing area into your plans will make your life much easier on the day of shearing!!

### **Equipment**

There are, of course, many pieces of equipment that you will acquire over the course of your alpaca ownership. However, there are two pieces of equipment that we wanted to point out that will require you to do some thinking regarding where you would want to put them.

- **Scale** – regardless of the type of operation you have, you will want a scale. And you will need to think about where you put it. Weighing your animals periodically (or often if they are crias!) will tell you a great deal about their health and the quality of their fiber. Skinny animals are usually victims of parasites, fat animals usually “blow out” their average micron level and devalue the fleece. You will want to place the scale somewhere where the animals are comfortable. We have ours in a corner of one of the stalls and the alpacas don't like it. Many people put the scale in a more open area and allow the little ones to stand on it throughout the day as a matter of course. This allows them to get use to it early in life so it is not such a big ordeal when they get older. We do like having our scale in the corner as it is easier for us to weigh the little ones. We also have ours in the pen with the nursing dams and crias as the latter group is the one we weigh most often.

- *Alpaca Chute* – we waited several years to make this purchase, and now we don't know how we lived without it! A chute is expensive, but it will save you time, human injuries, and aggravation. But think about where to put your chute. There are a few different models, but typically the sides of the chute swing open, so you need to have at least six feet on either side to open the panels. Additionally, you will want to have enough room to walk the animal in from the rear of the chute, and enough room in front of the chute to have access to their heads. Overall we recommend an area that is 14' x 10'.

### **Conclusion**

Planning your farm layout and your barn layout can be a fun and exciting event, but it can also be an overwhelming process. We encourage everyone to really look at the layouts of the various farms you visit in addition to looking at the animals. Talk to the owners about their set ups as each one will be different and you will get lots of great ideas for starting your own farm project.

Feel free to contact us if you have more questions. And of course, drop by and we're happy to show you around!