Grafting Lambs—
The Head Gate

—Ulf Kintzel

It is winter again and for many who have sheep, lambing season lurks just around the corner. Lambing season brings much joy but also many problems. An almost inevitable problem is orphan lambs. Some choose to bottle-feed them. However, milk replacer is expensive and eats into the profit margin. It is also time consuming. Others try to graft the lamb. Many articles have been written about the different methods of grafting, outlining the methods used. This will not be yet another one outlining these methods. In this article I want to focus on the method that has worked out by far the best for me after trying all the other ones. While the method I use is almost always successful, it is the little details that I will describe that make it so successful.

My initial experience in sheep farming was gained in Germany. The most successful method used there was skin grafting. Skin grafting means that the skin of the dead lamb is taken off and is put on the orphan lamb that is placed with the ewe. It needs a special skill to take the skin off properly. Furthermore, on warmer days the skin can easily get messy, smelly, and infested with maggots. While I acknowledge that the success rate of this method rivals the one I use, it isn't the method I chose for the reasons stated above.

Other methods like the slime method; ways of inhibiting the ewe’s ability to detect scent, i.e. with a spray; or tying the ewe are not very successful in my opinion. The failure rate is high.

On a trip to England in the early nineties with a group of farmers from Germany, we visited a sheep farmer who was using a stanchion or headlock to graft lambs. Apparently, that is a widely used method there. His claim was that under normal circumstances the ewe will adopt a lamb within three days. I was skeptical. Later I worked on a large sheep farm in the Black Forest. The sheep farmer there used the same method. He confirmed the claim of the English sheep farmer.

In the mid nineties I started White Clover Sheep Farm and had to make the decision which grafting method to use. After again trying out all other methods and reconfirming to myself that most methods have limited success and still not liking the skin grafting method, I gave this new method a try and built the first stanchion or head gate. In principal, a stanchion works by confining a ewe with her head in a headlock. She is unable to turn around and smell the lamb, yet she can get up and lie down as she pleases. Both water and feed are in front of her. Behind the stanchion is a jug where the body of the ewe and the to-be-adopted lamb(s) are.

When the ewe is first put into that headlock, she may put up a little bit of a fight, especially young sheep. For this reason it is important that the stanchion is sturdy and securely attached to either the wall, panels, or posts. That fight is usually very short-lived and the ewe soon gives up.

I start building such a headlock by using a sheet of plywood and cutting it exactly in half. I usually use a three-quarter-inch piece of plywood instead of a half-inch piece. I then cut a long, narrow piece out of the middle where the head will go through. I smooth the edges with sandpaper to keep the neck of the ewe from getting irritated. This rectangular hole is seven inches wide. It starts at one foot off the ground and is three feet high. In essence, the upper end of the opening should be high enough for the ewe to fully stand up. The lower end should be low enough for the ewe to lie down comfortably. The lower end, however, is the weakest link in this system since the ewe can turn the nose downwards and is able to smell the lamb should it choose to stand in front of her, which some lambs like to do. If that occurs, I cover several inches at the lower end of the hole with a narrow board. This solves the problem but makes lying down a bit uncomfortable for the ewe.

Two small holes are then drilled below and above the rectangular opening in a manner that a board can be hinged with bolts and wing nuts to the hole at the bottom and to the top. In order to put the head through the opening, the top bolt with a wing nut is removed and the board is moved to the side. I close that opening once the head of the ewe is put in by moving the board over and aligning it with the hole where I put the bolt through and secure it with the wing nut.

The force I use with knee and hand make it almost impossible for the ewe to kick or push the lamb away.
Those familiar with headlocks for cattle or cows should be able to picture the general idea. The reason for two holes at the bottom and two at the top is to be able to modify and adjust the width of the headlock from about four and a half inches to five and a half inches according to the size of the ewe. An adult ewe may need far more room than a yearling. What works for one ewe may be too wide for a yearling who then is able to pull her head out. What works for a yearling may be too tight for an ewe who, even though her head is fixated, may not be able to turn it enough to reach the water and the feed. The cost of this headlock is fairly insignificant. Of course, you can always purchase a far more expensive version. The company Sydell offers a grafting gate for about one hundred dollars plus shipping.

The greatest success I have had in the shortest time is when the ewe has just given birth to a dead lamb, or has a live and a dead lamb and has not yet settled in well enough to “count” her lambs. Ewes are able to count at least to three. That means a ewe is very capable of knowing how many lambs she has. However, that takes a few hours or a day after birth, depending on the age and experience of the ewe. Here are two different scenarios in order to illustrate what I mean:

**Scenario one:** An older ewe has just given birth to a lamb that is alive and one that is stillborn. She is still licking the stillborn lamb in the belief that it may be alive. A triplet lamb from a different ewe needs a foster mom. The ewe is put into the head gate and given her own as well as the triplet lamb. Make sure it is done in this order. It is of paramount importance that the ewe does not have a chance to see and smell the foster lamb prior to fixating her. Chances are she will now readily adopt this lamb in three days.

**Scenario two:** The same ewe has given birth to the two lambs, one alive and one dead, but it is now a day or two later. She is aware that she has only one live lamb. When she is put in the stanchion and is given the second lamb, she might resist the second lamb the moment it starts nursing. It may take longer than three days for the lamb to be adopted.

In the end, any adoption process does work out. I have not yet had a ewe that did not adopt a lamb eventually. You just have to leave the ewe in the head gate long enough. Here is another scenario to illustrate what I mean. About five years ago I had an extreme case of a two-week-old lamb whose mother had just died of overeating disease and a ewe that had a stillborn lamb a day or so prior to the ewe dying. I put the ewe in the head gate and she fought the lamb with all her might since the two-week-old lamb was obviously not her lamb. The adoption process did not seem to go well. Yet, two weeks later she did adopt it, even though I had released her twice in between to check the adoption progress (and had locked her back up because she rejected the lamb).

Sometimes a little force is initially needed to make sure the ewe lets a young lamb nurse and doesn’t succeed in pushing it away. This is particularly important for newborn or weak lambs. The way I do that is by pushing her over to one side with my knee and putting additional pressure on her back with my hands, which makes it difficult for her to lift one of her hind legs and kick the lamb away. That makes the ewe pretty helpless in fighting the lamb. Most ewes will eventually just give up when force is used, while the lamb quickly learns that me stepping into the jug means feeding time and starts aggressively pursuing the teats.

Individual disposition matters. Some ewes readily adopt a lamb even if they do know that it actually isn’t theirs.
Others put up a great fight. You want to be aware of it and don’t want to draw a general conclusion from observing just one ewe. The same differences apply to different breeds. I always had easy success with Texel sheep, but Scottish Blackface sheep gave me a much harder time. The White Dorper sheep I have now do just fine adopting a lamb.

When releasing the ewe from the head gate, the ewe will sniff the lamb for the first time and the lamb will see the head of the ewe for the first time. The lamb may freak out a bit and the ewe may initially not act at all like the adoption process succeeded. Give it some time. Of course, if the ewe is banging the lamb into the panels of the jug, put her right back into the head gate and leave her in there for an additional three days. She may also act with uncertainty, not acting aggressively towards the lamb but not letting it nurse yet either. In that case I give it a few minutes and stand and watch. What I find helpful is putting the lambs that are with her in a different jug a little ways away, then releasing the ewe from the head gate but leaving her in the jug. Then I wait an hour or two while the lambs call her and she calls the lambs. Then I pick up the lamb(s) and put it them with her and then observe how it goes. This method tells you quickly which way the adoption process went. Just make sure you always take all lambs away, both her own and the one to be adopted.

Before the ewe with the adopted, as well as her own, lambs are released into pasture with the rest of the flock, make sure the lambs learn to identify the ewe when called.

Remember that the lambs’ learning process of identifying their mother was stunned due to the days the ewe spent with her head locked up in the stanchion. To catch up on it, it works best to put the ewe and lambs in a smaller pen with a few other ewes with their lambs for a few days. It will also allow you to observe whether or not the lambs learned to recognize the ewe.

Sometimes the result of the adoption process is not clear cut. Here is a case I observed on a few occasions: I had a ewe adopt a foster lamb in addition to her own. The process of adoption seemed to have failed. The ewe would not call the lamb and would not let it nurse. Yet, when put in a small pen she would let the foster lamb nurse when she let her own lamb nurse. The foster lamb soon figured out when the ewe called her own lamb and came running to the ewe to nurse. If it ever tried to nurse by itself it was rejected. I raised a few lambs that way, and while these lambs did not get all the milk they could have gotten, they were raised successfully and satisfactorily.

Besides low cost and high success rate, there is one other reason why I like this method, although this particular reason will tell you more about me than it will tell you about the head gate. Most other methods that require holding the ewe to let the lamb nurse or require bottle-feeding also require time and patience. The fact of the matter is that lambing season is a very busy time, and time always seems to be in short supply. Lack of time and patience seems to be mutually exclusive. In addition, towards the end of a lambing season I am usually a little sleep deprived and very, very tired. Being tired and being patient also seem to be mutually exclusive. Using the head gate requires very little time and little patience. Only the initial interaction between ewe and lamb needs me to stand there and help and at times a weak lamb needs to be helped to nurse. After that, the system does the rest. I just need to watch so the ewe can reach the food and water and that the lamb is indeed nursing.

In summary, I like this grafting method for three main reasons: 1. It has proven successful in almost every case, even though the process was not always straightforward. 2. I haven’t had to bottle-feed lambs for perhaps a decade, which is both time consuming and costly. 3. This head gate requires very little patience, of which I am in short supply during the busiest season of the year, called lambing season.

Ulf Kintzel is a native of Germany and lives in the US since 1995. In 2006 he moved from New Jersey to Rushville in the Finger Lakes area in upstate New York. Ulf owns and operates White Clover Sheep Farm. He breeds and raises grass-fed White Dorper sheep without any grain feeding. His website address is www.whitecloversheepfarm.com. He can be reached by e-mail at ulf@whitecloversheepfarm.com or by phone at 585-554-3313. Ulf is a regular contributor to Farming Magazine.