Editor's note: This is the first in a four part series of articles on how we can develop our breeding lists. A good breeding plan is a result of a year of thought, and how we think about those choices, will change from season to season. This article addresses what we should be thinking about this summer.

## Summer Breeding Journal By Barbara Webb

It is approaching mid-summer, the solstice has passed and our sheep are out to pasture. Moms and babes are enjoying the summer graze or hanging out under the trees in the shade. The rams are calm and lazy in their own corner of the field. The excitement of lambing is behind us, and it is way too early to worry about breeding season, so it seems that there's nothing to do this summer but keep everyone wormed, and to tend the mineral feeder.

Yet, this can be the most important time in your flock's breeding future. The troubles and successes of lambing are still fresh in your mind and the living results of last year's breeding choices are out in the field. This is the time that you can make some important decisions, and the evidence you need to make those decisions is walking right past your window.

While your experiences of lambing are still relatively fresh in your mind, sit down now with a pad, pencil and your lamb book and if you haven't done so already, make some notes on the season. Go through your lamb book from birth to birth, and jot down anything you will need to know about that lambing. Was it a successful birth? Did the ewe do a particularly good job? Did she claim her lambs and keep them close while the siblings were born?

If so, this ewe gets a star, and you should put her lambs on a list of potential replacement breeders. There will be other factors in addition to maternal qualities that you will need for your final decision, but lambing season is the best place to start.

Was the birth more difficult? Did you have to assist, and if so, what was the degree of assist? Was it something simple like pulling the skin up over the poll of the lamb's head to ease the birth? Was it leg back, a breech birth, or something really wretched like bum first-no legs, legs-no head, upside down, or two lambs tangled up together at the door? You need to decide how serious the assist was, and if it falls on the other side of the line of what you are willing to do for your flock.

As an example, I had a ewe with triplets this year that lost her first to a breech birth. If I had been in attendance it would have been a simple thing to birth that lamb for a live birth. I was not home however, and the lamb died due to the breech position. Yet the ewe had clearly tried to start the lamb, it was cleaned up and when I arrived in the barn, she was still trying to get the dead lamb to stand up. The other two lambs came along without help, face first, live births. This ewe has been a good ewe for me, a dependable producer of twins, and an attentive mother with fat lambs in the fall, so I have decided that she will stay on the breeding list.

In contrast, I have a two-year old who miscarried as a yearling last year. I normally give yearlings a free pass on their results due to their immaturity. However, this year the ewe gave me a set twins that were so small I would have assumed that they were premature if I hadn't known her breeding date. She needed extra time in the jug, and the lambs needed special protection from the cold. And although the ewe did tend the lambs carefully in the jug, she sometimes lost track of them out in the field, and had to be reminded to keep them close. I can't see how they will even make a meat lamb in the fall.

This gal definitely goes on the cull list. All the other two year olds did well this lambing season, even those who were lambing for the first time, so this ewe is at the bottom of the list for results. A definite cull.

Our cull list is one of our most important tools to improve our flock. To weed out the inferior genetics is our most sacred responsibility toward our breed. We cannot let defective animals reproduce. We are so fortunate to be working with a breed that is hardy, sturdy, and healthy, a breed that excels as mothers, that clips a beautiful and exotic fiber, and that will give us lean and tasty meat lambs by fall. We have inherited over a thousand years worth of breeding history and it is up to us to protect that treasured inheritance.

Back to notes for the cull list. Do you have a ewe who has given you more than one bad result during the lambing season? If she is building a record of dead lambs, then out she goes. Does she tend to let her lambs wander off? Does she let other ewes steal her lambs? Does she seem to give skim milk and her lambs always do poorly? Are you spending more time on her and her lambs than you do everyone else?

While these experiences are fresh in your mind, put those ewes on the cull list. Sometimes the miseries of lambing season fade as we enjoy our summer lambs, so put your list of culls up on your bulletin board, or tape it alongside your computer monitor, anywhere that you will see it often and be reminded of why that ewe has to go.

On the up side, are there ewes that did particularly well? Is she building a record of twins and triplets, born without assistance? And just as importantly, are her daughters also doing a dependably good job? This is the family line from which you need to choose your replacement ewes, and to also put their ram lambs on the list of potential breeders to be evaluated in the fall.

With your list of outstanding ewes, and your list of cull ewes up on your bulletin board, you can turn your attention to the lambs. How are the lambs doing in general this summer? You know which lambs looked particularly good at birth; how are they looking now? Are there some lambs that catch your eye every time you walk the pasture? Go out and spend some time watching them. In particular, check the set of their legs. Are their front legs set well apart, with a full broad chest in between? Are their hind legs firmly and broadly set, well separated by a full, U-shaped rump? Or do you find that the legs are too close together, with a thin chest or a narrow V-shaped rump?

When you are handling the lambs for worming or vaccinations spend half a moment running your hands over each lamb and make notes of what your find. Their builds can go up or down as they are putting on long bone growth, or building muscle bulk, but you can still learn a lot by handling them. It is a common mistake, one I still find myself making, to try to base breeding decisions by eye or records alone. Yes, we want to study our records to see who is doing well and who can't seem to birth live twins, and yes, watching them grow in the field is very helpful, but we do need to get our hands on those lambs to really know how they are doing.

Every year I am surprised by someone when I am handling the lambs. I may find that one lamb has a strikingly silky fleece, and I star their number on my clipboard. Or I may discover a surprisingly muscular and smooth set of shoulders, something for which I am currently breeding, so I jot down that number as well. It is so hard to judge fleece or build by eye alone and summer handling is a great opportunity to evaluate your lambs.

Pay close attention to the ram lambs. You will be evaluating them again in the fall before you make your final choices, but keep an eye, and your hands, on the builds of your growing rams this summer. It is nice to have a list of potential breeders in the back of your mind. If you do have a ram lamb that is particularly promising, scan your eye over the ewe flock during your pasture walks and think about

which ones could be a successful cross with that ram.

During the heat of the summer, watch your lambs, and your adults for that matter, for heat intolerance. Any animal that is always going to rest in the shade while the rest of the flock is still grazing, has a problem with heat intolerance, and with selenium and Vitamin E. Try upping your supplementation program, but also watch those animals and see if the problem is persistent. If you are confident that your levels of supplementation are appropriate, and those animals are still suffering in the heat, then they must go on the cull list. Come the excitement of breeding in the cooler fall months, it can be easy to forget that a particular animal gave you trouble all summer. Don't let yourself perpetuate this trait.

Likewise, when you are worming, do you see families that seem to tolerate internal parasites particularly well? These are real treasures that you need to keep as breeders, particularly the rams. Monica DeLoach wrote an excellent and extensive article on this topic, and I would refer you to it for a more thorough discussion. This is a trait that is becoming increasingly important as the spread of wormer-resistant parasites threatens our national flock and the economic survival of our industry.

Any ewes or lambs that are consistently the first to suffer from the effects of parasites need to go on the cull list. The only exception would be elderly ewes that we are keeping for pets, or bottle lambs, since they can be susceptible to worms as a result of their difficult start in life. But animals that just can't seem to tolerate parasites *must* be taken out of the gene pool; we do not want these animals reproducing in our flock or in the flock of someone else.

To help keep all these thoughts and notes in order, you can keep a cull list, a watch list, and a keep list. Makes notes as you go through the season and trends may become apparent that surprise you. Some animals have a very powerful genetic effect, even down through the generations, and you may notice that some sheep on your keep list, or on your cull list, have a common ancestor. Even an animal long dead can show up on your lists as you realize that for example, a number of your animals with impressively silky fleece, are descendents at some degree from the same animal.

This time spent mulling over your records and flock book, can have a powerful effect on your breeding plan. Awareness of a sheep's bloodlines while we start to make tentative breeding plans has the potential to produce some outstanding individuals. If you discover that the ram and ewe lamb that you noticed with an especially long loin are the grandson and great-granddaughter respectively, of the same ram, then a cross between those individuals has the potential to really cement that trait with some strong, consistent genetics. This of course harkens back to the idea of line breeding that I have written about previously, and I would refer you to that article for review.

So as the summer progresses and we enjoy watching our families out on pasture, our breeding assignment is two-fold. The first is to jot down our lambing memories before they fade, and the second is to watch and evaluate our lambs as they grow. Then come fall, when we are finalizing our breeding or cull lists, we will have strong and detailed evidence for those decisions.

In the next article, a discussion of the fall task of hands-on evaluations to finalize the roster of breeding rams, and the list of ewes' strengths and weaknesses that we need to consider. Until then, enjoy the summer!

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