

SHEEP MANAGEMENT BASICS KEYS TO A SUCCESSFUL PASTURE LAMBING SYSTEM

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With careful planning and a systematic approach to managing lambing ewes, pasture lambing systems offer an alternative to lambing in a barn or shed. This guide provides information for producers who are considering such a system.

WHY NOT LAMB IN A BARN?

Conventional wisdom indicates that sheep should give birth in the shelter of a barn. After all, lambs need shelter from inclement weather and a small enclosed space in which to bond with their mother.

However, many operations exist almost entirely on leased land without this type of infrastructure. In these situations, producers have adopted a system for lambing out on pasture. The system described below builds on the experience of shepherds here and in other parts of the world. We've found that pasture lambing has several advantages:

- Lower (or no) capital costs for barns and other infrastructure.
- Healthier ewes and lambs – few of the respiratory problems that often come with lambing in an enclosed area.
- A ewe flock with tremendous mothering abilities (and fewer mis-mothering problems).
- Lower feed costs – if timed to match the onset of rapid forage growth, pasture lambing systems require very little supplemental feed during lambing.

Like any livestock management system, pasture lambing requires careful record-keeping; knowledge of animal nutrition, health and behavior; and attention to detail. In short, pasture lambing requires a systematic approach.

EXPERIENCE AND OBSERVATION

Over the years, I've come to realize that one of the principles of working or moving livestock is that I must move slowly to go fast. Every time I get in a hurry to get something done - loading sheep in the trailer or moving sheep through the corrals, for example - the job takes

much longer than it would if I had the proper patience. When I'm quiet, my dogs are quiet as well - and the job goes quickly.

This principle is especially applicable at lambing time. There is an art to lambing in a pasture (or really to any lambing system) that can only be learned by experience. Moving slowly - both in a physical sense and from the standpoint of watching and waiting - is critical during lambing season.

For example, I occasionally come upon a lamb that doesn't seem to have a mother. The lamb may be dried off and energetic, but its mother is nowhere to be found. I'll typically look for a ewe that seems to be missing a lamb – and will even leave the lamb in the pasture until I come back for my evening rounds. Sometimes a ewe might misplace a lamb, and waiting (rather than rushing the lone lamb home to bottle raise it) lets them reunite.

I spend much of my time at lambing waiting and watching - waiting for a ewe to deliver her lambs on her own or watching to make sure that a ewe has bonded with her lambs. If I move too quickly at this point, I risk disrupting the ewe-lamb bond by pulling a lamb or increasing my labor requirements by bringing a lamb home to be bottle raised. Going slow, in this case, means less work!



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MANAGING YOUR FORAGE

Ewes have the greatest nutritional demand during their last 6 weeks of pregnancy and their first 6 weeks of lactation. We try to match our lambing period, then, with the onset of rapid grass growth in our area. We also try to manage our forage resources all year with the idea that we need lots of high-quality forage available beginning at the first of the year.

Sometimes the weather doesn't cooperate, obviously. There are several strategies for coping with poor forage growth.

- Provide supplemental protein and energy to help the ewes utilize the rougher, dry forages from the prior growing season.
- Seek additional pastures on neighboring properties (portable fencing systems and stock-handling skills make this possible).
- As a last resort, feed hay.

For more information go to <http://ucanr.org/sites/placernevadasmallfarms/Livestock/SheepGoats/>

EWES SELECTION AND RECORD-KEEPING

Since pasture-lambing ewes are typically not confined with their lambs immediately after birth, we require ewes that have strong maternal instincts. Ewes must also be able to deliver lambs without assistance and that produce adequate milk on a forage-based diet. Since these traits are mildly heritable, we also need a system for determining which female lambs to keep as replacements.



The EZ Care Lambing System provides a simple yet powerful tool for evaluating ewe performance and for selecting replacement ewe lambs. In this system, each ewe is scored on three criteria – lambing ease, mothering ability and lamb vigor – each year at the birth of her lambs. Potential ewe lamb replacements are evaluated based on their mother's scores.

| Criteria | -1 | 0 | 1 |
|--------------------------|----------------------------------|--|------------------------------------|
| Lambing Ease | Lamb is breech or must be pulled | Lamb requires minor assistance | No assistance needed |
| Mothering Ability | Ewe leaves lambs | Ewe stands well back while lambs are being processed | Ewe follows lambs wherever they go |
| Lamb Vigor | Has to be suckled | Slow to suckle | Lamb is up and has full belly |

Any ewe with a cumulative score of 1 or less is culled. Any ewe lamb whose mother's score is 1 or less is not retained. A field notebook works well for keeping handwritten lambing records. These records can then be transferred daily into an Excel spreadsheet or other database system.

FLOCK HEALTH AND NUTRITION

About 30 days prior to lambing, all should be vaccinated ewes for clostridial diseases, including tetanus. This gives the ewes immunity to these diseases, which passes through the placenta to the developing lamb(s). Try to save your best forage for the last 30 days of gestation – a time when the fetus is developing rapidly. Adequate selenium levels are also critical – look for a supplemental mineral product that contains adequate selenium.

TAGGING

Some ewes have soiled wool around their vaginas. At vaccination time, you can also select ewes that need to be “tagged” – that is, ewes that need to have their hindquarters sheared. Tagging removes the soiled wool, allowing for a cleaner delivery of lambs. Tagging also removes wool from around the udder, which helps ensure that the lambs can find a teat (rather than a lock of wool). Tagging should be completed 3-4 weeks before lambing begins.

PREDATOR PROTECTION

The main predators that threaten newborn lambs in our region are domestic dogs, coyotes, mountain lions, foxes, eagles, and owls. Many producers rely on a combination of electric fencing and guardian animals to protect their flocks from predators. Guard dogs seem to be the most effective guardians, but all guardian animals should be closely monitored. Some guardian dogs exhibit play behavior with the lambs (which can be lethal to the lambs), while others have an over-developed maternal instinct (which results in the dog protecting lambs from their mother). Guardian donkeys may act aggressively towards lambs. For more information on predator protection, go to <http://anrcatalog.ucanr.edu/pdf/8598.pdf>.

WATCHING THE WEATHER

While sheep (and newborn lambs in particular) are often hardier than we give them credit for, we do keep an eye on the weather during lambing. Wet and windy weather, in particular, can pose problems. If inclement weather is forecast, try to put the sheep into paddocks that provide some natural shelter. Trees, brush and topographic features provide windbreaks and shelter from rain and snow. During stormy weather in the foothills, for example, our prevailing winds are from the south. Put the flock on the lee side of a hill in a paddock with plenty of trees, rocks and/or brush for the ewes to shelter behind.

The best remedy for cold weather is a ewe that produces plenty of milk! A lamb with a full belly typically will not get chilled in our climate. Since milk production is related to forage quality make sure that the sheep have plenty of fresh forage available just before and during stormy weather.

Finally, do not process lambs (e.g., dock and castrate – see below) immediately prior to or during wet weather.

MANAGING AND PROCESSING LAMBS

In many pasture lambing systems, lambs are processed within 24 hours of birth (except as noted above). Processing includes docking and castrating, spraying umbilical cords with betadine or iodine, ear tagging, and paint marking. Record lamb number, lamb sex ewe number, breeding group and EZ Care score for each lamb. Some shepherds paint mark each lamb with its mother’s ear tag number. Single lambs are paint marked with blue paint, and multiple-birth lambs are marked with red paint. This allows an easy visual confirmation that a lamb has been processed.



Pasture lambing operations process within 24 hours for several reasons. First, lambs older than 24 hours of age are nearly impossible to catch. Second, docking and castrating may be less stressful for the lambs because their central nervous systems have not fully developed at that age.

MOVING EWES AND LAMBS

Moving ewes with newborn lambs can be a time consuming process. Ewes will tend to want to stay on their “lambing beds” for 18-24 hours after giving birth. This lambing bed is an imaginary circle perhaps 20 feet in diameter around the area where a ewe gives birth. Even when the rest of the sheep move onto fresh forage, a ewe that has just given birth will stay with her lamb(s).

Confident yet gentle dogs are a key to this system. Ewes with lambs can be very aggressive towards dogs (desirable if they are fighting off predators – less desirable

if they're taking on a border collie). Shepherds should try to help their herding dogs walk the line between protecting themselves and not being overly aggressive towards the ewes.

New lambs haven't learned to move away from herding dogs – they are generally trying to follow the rest of the sheep, but they do not have any flight response. Again, gentle dogs are a key.

When moving the flock onto fresh feed, allow the still-pregnant ewes and the ewes with lambs that are over 24 hours old to move as a group. Allow any new pairs (ewes with lambs less than 24 hours old) to stay back. If you can't encourage these new pairs to move on their own, carry the lambs. This is a slow process; a ewe must be able to smell, see and hear her lamb(s) if she is to follow. Lambs, therefore, must be carried at eye level for the ewe. Carry them by their front legs, which allows the lambs to dangle at eye/nose level for the ewe.

Once the entire flock has moved, stay with them to make sure that ewes and lambs are matched up. A newly moved flock is quite noisy! Ewes are calling to their lambs and vice versa. Try not to get in a rush – a lost lamb can get chilled quickly.

A note on catching ewes and lambs

Sometimes, you'll need to catch a ewe to examine her or to give her medical treatment. You may also need to catch lambs for processing (and sometimes later for medical treatment). We'll use our border collies to help hold a group of sheep close. I prefer a leg crook for catching ewes – these crooks are designed to hold a hind leg until the shepherd can catch the ewe. For lambs, I prefer a neck crook. When catching a lamb, try to hook it around the chest (not the neck).

LAMBING PROBLEMS

Abortions

Ewes can abort their lambs for a variety of reasons. An abortion rate of 3-5 percent normal. A more significant abortion rate (sometimes called an "abortion storm") can indicate a serious problem. Should this occur, collect several aborted fetuses and placentas and take them to the California Animal Health and Food Safety Lab in Davis. The lab can determine the cause of the abortions, which will allow you to work with your veterinarian to address the problem.

Dystocia

This is a fancy way to say that a lamb is stuck in the birth canal! Sometimes a lamb has one leg back or is simply a bit too big. If you can get both front legs forward, gently pull while the ewe is pushing. More complicated dystocia may involve a head back or a breech delivery (butt-first). If you can't get the lamb turned yourself, call your veterinarian.

Mis-mothering

We've experienced several types of mothering problems. Sometimes, a ewe just isn't a good mother (not often, given the system described above for selecting replacements). However, it does happen – a ewe simply doesn't know what to do. In this case, you may need to take the lamb home and bottle raise it. The ewe should be sold after weaning.

Some ewes don't know how to count! A ewe that has twins will sometimes forget her first lamb while taking care of the second one. Try penning such a ewe with both lambs with the hope that she'll remember she has more than one lamb. Consider parking a stock trailer near the lambing pasture to provide pen space.

Some ewes (especially new mothers) will try to steal a lamb – especially if they are going into labor themselves. This will usually resolve itself – the lamb's real mother will aggressively protect her lamb.

Sometimes, a ewe that loses one of her twin lambs will adopt another ewe's lamb. If she has enough milk, don't worry too much about it. In fact, make note of ewes that will take another lamb – sometimes this can make grafting an

orphaned or abandoned lamb much easier (see below – grafting involves getting a ewe to take a lamb that is not her own.)

Bottle lambs

Most producers always seem to end up with a few bottle lambs. Some are lambs that are abandoned by their mothers. Others (in very rare cases) are orphaned when their mother dies. We'll also usually pull the smallest of a set of triplets off the ewe (so that the two strongest/biggest lambs will get plenty of milk. Finally, sometimes a lamb gets chilled during wet and cold weather and won't get up to nurse.



It's most important to get a cold lamb warmed up before trying to feed it. Once the lamb is warm, its digestive system can handle milk. Warm the milk to help continue the warming process from the inside out! However, a cold lamb's digestive system often shuts down, so warm milk in a cold lamb doesn't do much good.

Some lambs don't have a suck reflex at first. In this case, you can pass a stomach tube directly into its stomach, making sure not to pass the tube into its lungs instead.

While you can try to get sheep's milk or goat's milk for your bottle lambs, you can also use milk replacer if necessary. Try to make sure that bottle lambs receive colostrum (either from their own mother or from a ewe that loses a lamb at birth – try to strip out these ewes and save their milk). Bottle lambs can be weaned at 30-45 days.

Lamb mortality

Some lamb mortality is normal – some lambs get cold or have other health problems that aren't preventable. However, if you experience an uncommonly high mortality rate, work with your veterinarian to determine the cause.

A NOTE ON SCALE

There are a few management strategies that can help make a large-scale pasture lambing system workable. Ideally, lambs should still be processed (at least ear-tagged, paint-marked and inoculated (if necessary) within 24 hours of birth – it takes much more time to catch lambs that are more than 1 day old, and more time means more labor costs! For a large-scale operation drift lambing might make sense – ewes with older lambs and still-pregnant ewes are moved onto a fresh paddock each morning. New lambs and their mothers, as well as ewes in late-stage labor, are left in the old paddock on their lambing beds until the ewe-lamb bond is established. In the evening (or perhaps the next morning), these bonded pairs can rejoin the main flock.

THE LAMBING KIT

Keep your lambing kit stocked with the following supplies:

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|---|---|
| Elastrators and enough bands for season | Prolapse harness |
| Ear tags and tagger | Rubber gloves |
| LA200 (antibiotic) – requires a veterinarian's prescription | Towels and rags |
| Omega 3-6-9 Drench (for weak or cold lambs) | Thermometer |
| BoSe injectable – requires a prescription | Slip-on dog leashes (like your vet uses) and/or a lamb puller |
| 1 and 3 cc syringes and needles | Stethoscope |
| Lambing notebook (for records) | Pritchard nipples and soda bottles |
| Betadine solution in spray or dip bottle (for navels) | Frozen colostrum (ewe, doe or cow) |
| OB lube | Lamb milk replacer |
| Marking paint | Neck and leg crooks |
| Stomach tube and 60 cc syringe | Flashlight or head lamp |
| Sheep halter | Veterinarian's phone number |