Southern Oregon Soay Sheep Farms

American RBST Foundation Flock USA0001

A Beginners Guide to Basic Care of Soay Sheep

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photo by Steve Werblow

The following is intended to help you get acquainted with caring for your Soay sheep. These are suggestions that have worked for me and are ideas that I have come across in my travels around the US, Canada and the UK. While I have tried to make it as comprehensive as possible, remember it should only serve as a beginning guide. To that end a list of resources is included at the end that explore many of these topics in greater depth. There is seldom an absolute right or wrong way to do things with Soay sheep and opinions often vary, the following is based on one breeders sixteen years of experience keeping these sheep.

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Once you have decided you are serious about getting Soay sheep find a breeder you are comfortable with and who is willing to mentor you; someone you can call in the middle if you have an emergency, someone who can walk you though a problem or assure you that your panic is unfounded. Soay are easy keepers, ideal for beginners and seldom have problems, but when you are new everything can seem serious.

Bringing your sheep home

(The role of stress in a Soay's life.)

An often-overlooked factor in the welfare of a primitive sheep is the role that stress plays in its life. The importance of minimizing stress cannot be over emphasized. When the animals arrive at your farm isolate them in a secure, quiet location where they will feel protected, able to relax and begin the adjustment to their new environment. A closed barn stall is an excellent location for this. There they can become accustomed to new noises and smells and begin to bond with their new home. This will also serve as a quarantine which is always important when bringing new animals onto your farm. It should be an area with good ventilation, fresh water and feed and clean bedding. Ideally it will also be a place where you can observe, but not handle them. Remember, to the sheep you are still a stranger.

Initially make as few changes to their daily lives as you can, duplicate the feed and supplements from the original farm as much as is practicable and gradually shift them over to your own. They should have a good grass hay rather than alfalfa, especially males who can develop life threatening calculi in their urinary tract in part from eating alfalfa. As soon as you are comfortable that the sheep have formed an attachment to their new home (generally within a few days) you can turn them loose into a small pasture adjoining their barn. Access to their shelter (to which they have bonded) will provide a safe place to escape when startled or frightened. A Soay can very easily jump a five foot fence, but if it feels secure (in its barn or shed) it is not inclined to do so. For a more about fences and housing see http://www.soayfarms.com/shelter.html. If you have livestock protection dogs introduce the dogs and the sheep in a smaller enclosure before turning them loose together. When you cannot be there to supervise it is advisable to secure the dog, especially a puppy, in a pen adjacent to the sheep where they can have contact through the fence. This will allow the two to get acquainted while protecting both from possible aggression or rambunctious puppy games which can lead to either an injured puppy or sheep.

Soay, like most animals, are creatures of habit and you will discover they develop a daily routine in their lives. You can use this to your advantage and gradually help them become more comfortable with your presence. I generally feed about the same time each day for example and they quickly learn to associate me with dinner or breakfast. The sheep also soon realize that a bucket usually means treats. Whole oats or ewe and lamb pellets work well for this. It can be fed by hand or placed in a feeder. Be careful not to over feed grain, something that is very tempting to do. A quarter of a cup or so per animal per day is sufficient. They will

begin to associate you with treats and gradually become friendlier. Place hay in a feeder off the ground if at all feasible. A 33-gallon plastic container works well for this, as do a variety of styles of hay mangers, which can either be built at home or obtained commercially. Be prepared for waste, sheep waste a lot of hay no matter what you do to prevent it. Manage it as best you can.

Trace minerals should also always be made available. Loose sheep salt with selenium added (because Oregon is Selenium deficient) works well, but is not available everywhere. Check with other sheep farmers in your area or your feed store for suggestions about what mineral supplements are available to you. Your local extension agent can answer any questions about selenium in your area. It is critical that any supplement you get is **copper free**, primitive breeds of sheep especially are susceptible to copper poisoning.

Handling your Soay Sheep

(You can never move too calmly or have too many gates)

Soay are shy by nature, but they are also extremely curious and you can use this to your advantage in handling your sheep. Gaining their confidence is important and a bucket of grain is a wonderful way to begin this process. It is much easier to lead a Soay sheep (with a bucket) than it is to chase it and chasing it is the fastest way to loose it's trust; once lost it is hard to regain. Sheep pellets work especially well because they make a loud rattle and just one shake of the pail now brings my Soay flying out of the woods down to the barn.

A well thought out barn design (or modifications of your existing barn) and good barnyard layout can save much heartache and often avoid disasters later on. Visit as many farms as you can before bringing your Soay home to learn how others work their sheep, pick every brain you can find, some ideas will be good some will be good examples of what not to do. Create spaces where the sheep will feel comfortable coming and going and create a small area for catching them. When designing your barn and paddocks, it is very useful to plan a couple of small adjoining pens or catch pens between fields with gates between them. Ideally these will be areas where the sheep must normally pass through on their way to their hay or treats. By luring them into the pen you can guietly close the gate behind all of you and now they are secured. Keep your movements slow and easy and don't make any sudden noises to startle them. Portable panels, commercial light weight panels in the US or hurdles in the UK, are extremely useful for then squeezing the flock into a tight space. Now you do not have to chase them, but can reach into the group and catch the animal you want to work with. On a precautionary note be sure that when your small pens are not being used for management purposes they do not become a trap where one aggressive animal can corner a weaker one. Either leave all the gates closed or all of the gates open so that there is an escape route.



Here the sheep are gradually moved with a series of gates to increasingly tighter quarters where they can be quietly handled. They have been lured into the first pen with ewe and lamb pellets in the feeding trough on the ground

When working with the sheep will require their confinement planning ahead makes everyone's life much simpler, especially when working with rams. Patience is very important here, don't round them up when you are in a rush. If you are shipping animals, you have your vet scheduled to visit your farm or if you are just going to work with the sheep, you can lock them up with their hay the evening before at their normal feeding time. By the time you are ready in the morning they will be relaxed and the experience will be less stressful. On larger farms with large and/or multiple fields a dog will be needed to move the sheep to the barnyard. In spite of rumors to the contrary a number of Soay keepers use dogs that have been trained to work with Soay.



Joe works the Soay at Gaerllwyd Rare Flocks in Wales

Obviously there are times when an emergency situation requires drastic measures, and an animal has to be chased and captured in any way it can, often an escapee lamb, but whenever possible try to deal with the sheep in a calm and quiet manner. Your sheep will be happier and so will you.

Keeping your animals healthy

Familiarize yourself with your animals, their individual behaviors and their daily routine; this will be the most important tool you will have for keeping your flock healthy and happy. The Soay seems to be less troubled by disease and parasites than more domesticated breeds of sheep, but this does not mean that it will not have an occasional problem requiring your assistance. An animal lying down alone, away from the herd, is often your first sign of trouble. Loss of appetite is another sign, as is a change in personality. Do not ignore these, they may be indicators that there is something seriously wrong. Trust your instincts and if something does not look right to you investigate. If you have any doubts call your veterinarian.

When you call the veterinarian the first question the vet will ask you is, "does the animal have a temperature? "A normal sheep temperature ranges between 100.9 to 103 (Average 102.3 degrees.) A temperature over 104 degrees may be indication of a problem (Simmons, 1989). Use a digital thermometer (rectal) to determine if it has a fever. You will also be asked to describe any other symptoms; be as specific as you can.

Often the vet will instruct you to try one of several initial treatments before you are advised to bring the animal in and having a basic first aid kit is very helpful at such a time. Over the years, I have accumulated a number of things that are now always kept on hand in case of emergency.

This is by no means intended to be a complete list, but rather a basic beginning; things that have worked for me.

Kathie's basic First Aid Kit All of the following are available at most feed stores or by catalogue. see <u>catalog suppliers</u> for a resources.

- A digital thermometer
- Pepto-Bismol or flavored Maalox (lemon cream flavor if you can find it)
- Betadine Solution, Antiseptic Microbicide
- Vitamin B complex
- Penicillin G (long acting) or Oxytet
- LA200 Liquamycin especially good for upper respiratory problems
- CDT (Clostridium Perfringens Types C & D- Tetanus Toxoid) Or Covexin 8
- 1 ml slip syringes (without needles) for lambs
- 20 gage 1/2" long needles for the I ml syringes
- Luer Lock 3 ml syringes with 20 ga 3/4" needles for adults
- Probios Paste (tube) for rumen problems (get the large size)
- 10 or 12 ml slip syringes (without needles) to administer Probios paste
- Electrolytes (rehydration fluid) such as Biolyte
- Large 35 cc to 60-cc catheter syringe for administering (thick) liquids orally (drenches)
- Worming medicine (recommended by your veterinarian)
- Styptic Powder, to stop bleeding, when horns break they can bleed profusely
- Magic Toe Shears for hooves
- Small scissors
- #400 plastic dog crate for transporting an adult ewe, small rams or 2 lambs
- Friskar soft touch scissors for shearing & trims
- All weather paint stick (crayon) to mark animals that have already been worked

For lambing season we also always have on hand

- Tincture of Iodine, 7 % for treatment of newborn's umbilical cord and occasional cuts and abrasions
- Empty pill vial for iodine
- Ewe or goat colostrum (preferably collected fresh then frozen) or a powdered form such as *Nurse Mate* available from <u>Pipestone Vet</u> <u>Supply</u>
- Lamb milk replacer (many brands are available)
- **Deliver** granule/powder added to milk replacer to help with scours in bottle lambs
- Pritchard teats (nipples for lambs) and a 500ml plastic soda or water bottle that will fit the nipples
- Clean towels

- Vitamin A & D for newborns
- BoSe- which we get from our vet because selenium is such a problem in our area
- mineral oil for constipated lambs
- An "ICU" pen under cover for sick or injured animals.
- notebook for keeping notes about treatment and dates of treatment

In the event of an injury or illness

In the event of an injury or an illness it will be important to have a way to transport the patient to the vet (a dog crate) and/or a place where you can isolate it in the barn to rest and recuperate undisturbed. Sheep, like any herd animal, become very stressed when isolated from the flock and so a place where it can be protected but still see, hear and smell its flock-mates is very important. Cattle panel is very useful for this if you do not have a permanent fence dividing your barn. It comes in 48"h x 16' lengths, is available at most feed stores and can be cut with bolt cutters to fit any size that you need. Several livestock equipment manufacturers such as <u>Shaul's</u> <u>Mfg</u>. also make "light weight panels" that are 40" tall x 5' long with 7 rails. These pin together for maximum flexibility and ease of movement and two in a corner or four free standing will make a comfortable isolation pen. (They are generally available at livestock shows.) This will physically separate the sheep, but allow it to not feel alone. You will find that this often plays an important role in a successful recovery.



Shaul's Mfg. light weight panels 40" x 5' with 7 rails

Routine Maintenance

Routine maintenance is an important part of keeping any livestock animal and is the best way to insure its good health. The Soay requires much less maintenance than more domesticated sheep. Two of their primitive characteristics are a naturally short tail and the ability to shed or molt their wool annually (in the late spring and early

summer). Unlike "modern sheep" which have been selectively bred, they also retain the wide genetic diversity of their wild ancestors which enables them to better cope with whatever nature throws at them. This makes them more resistant to disease and parasites and more adaptable to a variety of environments and climates. However, that does not mean they are maintenance free. Their feet need an occasional trimming, they need to be wormed and, as a precaution, I vaccinate mine annually. When getting ready to do these chores, keep in mind these activities are stressful and the use of a small 5' x 5' or smaller catch-pen which eliminates chase and capture can help reduce that stress.

Vaccination

I vaccinate annually with Covexin 8 but CDT (Clostridium Perfringens Types C & D-Tetanus Toxoid) is a widely used alternative. Either will provide protection. The first year two doses are required (at a one-month interval) and after that only an annual booster will be necessary. I try to plan ewe vaccinations approximately one month prior to lambing so that the lambs will benefit from their mother's immunity the first four weeks or so of their lives. I prepare everything, such as loading syringes, before I go to the barn (always take a little extra in case of spills) and I use a new needle for each animal. They dull quickly making injections more painful and this practice will reduce the risk of transmitting pathogens from one sheep to another. By marking the forehead of a treated animal with an All-Weather Paint Stick Livestock Marker, a large all weather color crayon, you can keep track of who has been treated and who has not. Hot pink shows up especially well on the dark face of a Soay. The shots (jabs) are administered subcutaneously ("sub-Q") just under the skin. Abscesses can and often do occur as a result of the use of either product, so keep an eye on the animals for several days after giving injections. They seldom if ever need treatment. Keep a record of your worming and vaccination dates for future reference. Sharps containers for the disposal of used needles are available from a number of on line livestock suppliers such as Valley Vet Supply or KV supply



Preparation for annual vaccination day

Worming

Before worming I take a fecal sample to the vet for analysis to determine if worming is necessary. It is best to take a mixed sample from several sheep for this purpose. How often it is done will depend on your own situation. Where a larger number of animals are kept in smaller quarters, kept on dirt (a dry lot) or on pasture in an especially wet environment this should be done as often as every three months. When you are maintaining fewer animals in a larger pasture you may be able to get away with worming once every six months or longer. Initially, I would recommend you get a fecal done more frequently. You can use this as your baseline and determine how often worming is necessary on your farm. If the fecal comes back positive, you will need to treat the entire flock, preferably all on the same day.

If a sheep appears thin for no apparent reason or you see loose stools or signs of diarrhea, worms can often be the cause (though not always) and you should take a stool sample to the vet for analysis.

There are a number of ways to worm sheep. I administer wormer orally with a small 1 cc needle-less syringe, the small size makes slipping it in the corner of their mouths especially easy. A drenching gun can also be used for larger flocks, however, I had problems keeping the hose attached to the gun and did not realize that it was not reloading after each squeeze of the trigger. There are a variety of wormers available at your feed store and you will need to get the one that covers the specific parasites your sheep are carrying. If worming pregnant ewes make certain the worming agent you use is safe during pregnancy. Valbazen (albendazole) for example can cause abortion in ewes, birth defects in lambs and should also not be used on rams within sixty days of breeding. Your veterinarian can advise you of the product and dosage that is best suited to your situation. Worms are more heavily passed on the first three days after worming so if possible hold the sheep off your pasture until the fourth day. Worm loads tend to "explode" in the spring and so this is an important time of year to have their fecals checked.

Trimming feet:

Some sheep grow nail faster than others and therefore require a trim more often, but as a general rule hooves can be trimmed once a year when you vaccinate. Providing a rough surface for the sheep to walk on will help keep the hoof worn down and in some cases eliminates the need for trimming at all. I have had very good luck with ³/₄ minus driveway gravel. It packs down much the same way as pavement does but provides a rougher surface. Keeping it cleared of debris will increase its effectiveness and allow you to go for longer periods between trims, if it does not eliminate the need for trimming completely. For clipping hooves Magic Toe Shears work very well. They are lightweight, fit comfortably in your hand and are easy to use. Hooves are easier to cut in the spring and winter when the ground is wet and they are soft.

Trimming Rams horns

Like everything else with the Soay sheep, ram horns come in a variety of configurations, they range from tight to wide curls and even scurred (small misshapen horns) but most have plain spirals that curl past the face usually not completing a full circle. Horns, like trees, develop distinct age rings adding a new ring each year during the growth cycle (approximately March to September) until growth slows or stops all together at about age six or seven. This makes them easy to age. The greatest growth rate occurs over the first six months and then slows in succeeding years. Quite often Soay have horns grow into the neck or skull. Unless they are actually rubbing the skin or pushing hard enough into the face to cause discomfort this will not cause any harm and it is not a characteristic the ram will necessarily pass on to his offspring. But when the horn abrades the tissue or crushes into the jaw they need to be cut. With a conservation program this simply becomes a maintenance issue and trims become part of an annual maintenance routine, just like trimming feet. A ram should never be culled from a conservation flock solely because of tight horns. Horns continually move (get closer or further from the face) through out the animal's maturation and those that appear too close in the spring may pull away by the end of the summer. Conversely horns that appear to be wide at maturity can also tilt and push into the face as the animal gets older.

I have used a number saws for cutting horn, but have finally settled on an OB wire saw. Wire and handles can be found on line at <u>Valley Vet Supply</u>. When you have to cut further up the curl, through the horn core, (more than just the tip, which can be done with bolt cutters) bleeding can be a problem. Be certain to have a styptic power such as Blood Stop or Kwik Stop on hand before you start cutting. By using a longer wire, 28"- 30" you can often generate enough heat pulling the wire back and forth through the horn to cauterize it which will prevent bleeding.

Horns take a lot of abuse over the life of a healthy Soay ram and as they age they begin to breakdown, (you will find this with ewes as well). This is simply a part of the aging process and while they become brittle and can easily break off they aren't a problem. However those convenient "handles" that we are not supposed to grab can no longer serve that purpose.





distinct age rings most visible close to scalp note decreasing distance between the rings where growth rate has slowed as the animal has aged Thurso age 7 Tucker age 12

Shedding/Shearing

Soay normally shed annually. Rams begin in early spring after the rut and ewes after lambing in late spring and early summer. The current thinking is that hormones and body condition control molting. Some rams, wethers or ewes that have not lambed however do not always cast their fleece. Those that do can be rooed (gently hand plucked) as they shed and those that don't need to be clipped which can be done with hand sheep shears or Friskar soft touch scissors. Summer temperatures in my area are often over 100F and when sheep are hot they eat less and can go into winter thin and in poor condition, something you do not notice under a full fleece. Removal of retained wool is also very important in areas where fly-strike, a potentially life threatening problem, is prevalent because flies lay their eggs on the skin under the wool where maggots hatch out of view.

Occasionally you will find the fleece has become felted and will not fall off and you cannot roo it. If you remove the matted top layer with hand clippers the molt will often begin and the animal will loose the rest of its wool naturally. If it does not you will have shear it.

A Soay's Life Cycle



British Soay Rams the Bachelor Flock

Rams and the Rut: the breeding season

Soay like wild sheep go through an annual rut in the fall. Breeding generally begins in mid-October or early November. As a very general rule the rut (on my farm) lasts into January, however, some rams may be active much of the year. Outside of the breeding season rams seek the company of other males and when put in a field with both sexes generally gravitate to other rams where they get along peacefully. In the fall however, it is a different matter, behavior begins to change and levels of aggression increase. As much as two months before breeding they begin chasing and butting each other as they compete for dominance. Skirmishes increase in frequency and intensity as days grow shorter and the weather gets cooler and serious fights can occur. Charging and butting using their horns is the only method of assault that sheep have, they are good at it and they can kill one another. One must be very observant and cautious when around rams at this time of the year and plan ahead when they need to be worked. If a ram has become too tame he will loose his respect for you as alpha and treat you as he would any other adversary. I have found that keeping a larger group of males as a bachelor flock is easier to manage than just keeping just a few, even during the rut. Two can be a problem, but three is generally worse because two can gang up on the third one and kill him. Having a few castrated males in the flock will help defuse some of these problems.

Head butting and bashing do still occur, but to a much less serious degree. Cuts on the face and swollen eyes are common, but generally they are not serious. Cracked horns and deep cuts or leg injuries do obviously require some attention. Be very careful about introducing a new male member to the flock at this time of the year, your rams are a social group and may gang up on a single stranger.

When sorting breeding groups selected rams are taken from the bachelor flock and put in with their assigned harems while my remaining males stay together as a group. It is important to keep this group as far from breeding flocks or non-breeding ewes as possible, ideally out of sight from the other, if possible on another part of your farm. For standard and conservation breeding programs, when using several rams, it is important that each breeding group be separated into individual pens. These can be adjoining but they must have some form of visual barrier between them. A variety of materials can be used: plywood, tarps or cloth weed barrier that works as a curtain have worked very well here over the years.



Fabric weed barrier holds up well in the winter weather and provides the visual barrier needed to keep rams from pestering each other when kept in adjoining pens. It is readily available at feed stores and garden centers, is easy to hang on an existing fences and is much less unsightly than plywood or tarps. It is also used by researchers on St. Kilda to line the netting used to catch sheep for tagging so that their view is blocked and they can not see a way out.

Be certain there are no "peep" holes in the wood or sheeting, Soay are very curious and seem to love "peep" holes where they can watch what is going on in the pen next to them. These barriers will not be sufficient protection however, if you are keeping a flock of non-breeding (open) ewes next to a pen with any rams. Ewes will seek out a ram when they are receptive and tempt a male to jump the fence. With adjacent breeding groups this hasn't been a problem because all open ewes are serviced immediately by their own ram. If distance or a visual barrier are not used rams will bash each other through the fence and the force of the impact can destroy both the fence, including 4 x 4 fence posts and potentially seriously injure themselves and their opponent. Observation, planning and common sense will minimize all of these potential problems and while the rut is a time of caution it does not have to be a time of dread.

When it is time to remove the rams from their harems and re-introduce them to the bachelor flock several methods can be used. I have found my easiest re-introductions have been when I have bred late in the season and I am re-introducing boys in late January or early February. At this time of the year testosterone levels have generally started to drop and they are more interested in eating than fighting. I have simply been able to turn them loose together. Again having more than fewer also seems to help. In a case where one must re-introduce rams while still in rut I have confined all of them in a small shed 8' x 8' shed (sometimes smaller) and left them locked up for up to a week with only hay and water. By the end of the week they all smell alike and can't distinguish one from the other and they are no long carrying the scent of ewes. If they are still serious about fighting when they are finally turned out lock them up and start over again. In some instances, especially when you have only had two rams, a hood or mask over their faces may prevent them from backing up and charging because they can only see out the sides and not forward so they can not see each other directly.

Some rams will be fine with newborn lambs, but sometimes they chase and harass the ewe trampling a lamb in the process and so I always remove the rams from their breeding groups before lambing.

Lambing and lamb care

One British Soay keeper boasted to her neighbor (a fellow sheep breeder) that the only equipment she needed for lambing season was a pair of binoculars. I have found that this is not much of an exaggeration. The gestation for Soay sheep is approximately 142 to 152 days with 148-150 days average and lambing only occurs once a year. You usually wander out to your barn or pasture to discover a new healthy little lamb wandering around its mother. Middle age females often twin and very, very rarely naturally have triplets. Some ewes twin with regularity and some only ever have singles. The Soay ewe is an excellent mother and only very rarely has a problem. However, one should always be prepared for the unexpected. It is wise to begin the lambing season with a few items on hand; colostrum and a few days supply of lamb milk replacer (both available in powder form from the feedstore- if you do not have access to frozen sheep colostrum) a Pritchard teat, a bottle the nipple will fit and tincture (7%) of iodine. I also keep on hand a bottle of injectible Bo-Se from the vet and vitamin A & D (from the feed store).

It is very important that the ewe clean the sack off her newborn lamb herself, in so doing they bond and learn to recognize each other. Do not panic as I did when I discovered my first wet newborn out in the field and rushed to dry it off. Be observant, but do not be too eager to rush in to help, Soay mothers generally know what they are doing and are good at it; only intercede if you can see there is something drastically wrong. The afterbirth, including the placenta will be hanging from the ewe and will pass within a few hours. Let it pass naturally, do not attempt to remove it. If it has not passed within 24 hours call the vet, you may need give the ewe a hormone shot. Do not cut the placenta shorter if it is dragging on the ground tie it in a big bow and let it continue to hang, the weight of it hanging may encourage it to drop off naturally.



Processing a new lamb (ear tag, shots, weight, iodine) We always try to remain calm and quiet and involve the mother in the process photo by Carol Fraley

As soon after delivery as you can (but after the mother has cleaned it) catch the lamb and immerse the umbilical cord up to the abdomen in 7% tincture of iodine. This is a simple precaution that will reduce the risk of infection. I have found a prescription pill vial filled with the iodine is ideal for this, the stump will drop down into it and you do not have to turn the lamb over to apply it. If the stump is so long that it touches the ground, I trim it, but just a bit. On the advice of my vet I also give each lamb a .25cc injection of Vitamin A & D and a .25cc injection of BoSe because selenium deficiency is such a problem in our area, but as with all medications, consult your own veterinarian to see if he/she feels such treatment is appropriate. I

also tag lambs with baby ear tags just after they are born so I can identify them later. When all of this has been done and you have recorded the details return the baby to its mother and let them continue the bonding process.

The lamb should be standing very shortly after birth and will begin to nurse almost immediately (within an hour). Often you will not see this occurring and think it is not getting nourishment. If it can stand, walk and appears alert and is getting stronger, it is being well cared for by its mother. The first few days the lambs drink lots of very short gulps so nursing can be easy to miss.

Occasionally a newborn will get off to a slow start and appear weak (often a twin). In this situation I segregate the ewe and lamb/s so that curious flock mates will not trample it/them. As soon as the baby is sure on its feet the family was returned to the rest of the flock. I do not routinely jug the ewes and lambs (isolate them in small pens) unless such a situation has occurred because social interaction among these sheep is so important to them. Because of the use of livestock protection dogs I also don't need to protect the newborn lambs from predators such as foxes, cougars or coyotes.

It is not uncommon for a ewe to reject a twin or for a young ewe to reject her first lamb. Sometimes a first time mother does not seem to know what to do with a lamb and in some cases a ewe simply cannot produce enough milk to feed multiple offspring. In this case you may have to supplement the ewes milk with milk replacer. (Augmenting the ewe's feed can often help her increase her milk production.) Do not disturb the lamb when it is nursing, but if it is obviously still hungry it will sometimes also take a bottle, but only offer it after it has successfully nursed. If the ewe will not let the lamb nurse confine them in a small pen and restrict her movement with something like a head gate (which holds her from moving forward or backward) and give her hay and a little grain as a distraction. This can give the lamb a chance to work out getting its first meal without her moving away from it. In the case of twins, where one is larger and getting most of the milk place it in a small pen (wall off a corner of the jug) beside the mother but where it can't reach her after it has eaten and leave the smaller lamb with the ewe. Watch them all very carefully and after the smaller one has nursed return the bigger twin to the mother and sibling. Continue to watch them closely. If none of this works and the ewe simply rejects her lamb entirely you will need to care for the newborn yourself. Orphaned lambs are referred to "bummer lambs", "bummers" or "bottle babies" and it is important to have lambing supplies on hand before the season begins for just such a case. If the baby has not gotten colostrum from its mother (which it must get with the first 24 hours of birth), it will need it from an outside source, ideally fresh or frozen (thawed in a warm water bath not in the microwave) from another ewe (or goat) or a powdered form such as Nurse Mate which available from Pipestone Vet Supply. Every effort should be made to provide 10 percent of the lamb's body weight with this "first milk" over the course of the first 24 hours and the sooner it is started after parturition the better. After that you will need to switch to lamb milk replacer (many brands are available, but Pipestone Vet

Supply has an especially good one). Do not mix colostrum and milk replacer, finish one then start the other allowing some time in-between the two. Feedings should be every two hours the first few days, four times a day after that, eventually reducing that to three then two and finally one until it is fully weaned at about twelve weeks of age. Try to spread bottles out evenly over the course of the day so that the first feeding is very early in the morning and the last one shortly before you go to bed. A quarter of a cup at each feeding has worked well for me in the very beginning, but that will increase as the lamb grows, it should be getting between 10-20 percent of it's body weight in milk a day for the first four weeks or so depending on outside temperatures and its condition. Then you will start gradually cutting back. Be careful not to over feed at any one time. The most common problem I have had is diarrhea (scours), which can have a number of causes, but is often due to too much or too rich a formula given in too short a time. If you suspect this is the cause reduce the amount given at each serving (increase the number of servings if need be). Mixing the milk replacer with a little more water than suggested so it is not so rich (2 1/2 cups instead of 2) and adding 1/8 tsp. of Deliver granules (a supplement for calves) to 3/4 cup of formula will often control the problem. If it does not consult your vet. Under feeding can also be a problem and if the lamb has an arch in its back, cries excessively or shivers because it is cold it is probably not getting enough milk. While a lamb will start picking at hay within a few days of birth it will be four to six weeks before it's system will be adequately developed to digest roughage but it will be ten to twelve weeks before it can live exclusively on a diet of hay and be completely weaned. To take some pressure off the mother a medicated creep feed can be started for the lambs when they are about six weeks old. This will also help control coccidiosis (see below). Provide the lambs with this feed in a "creep pen" into which they can pass, but their mothers cannot.



Shaul's Creep Panel

If you have kept the bummer away from the flock you should return it to the barn as soon as you can so that it will begin to eat hay and socialize with its siblings. After the first few days (weather permitting) I leave the orphan in the barn with playmates and other moms during the day and bring it in in the evening until I am comfortable that it will be safe outside overnight. In areas where predators are a problem and you do not have livestock protection, all of the lambs should be secured in a barn or shed with their mothers especially at night.

Bottle babies become very tame and when artificially raising ram lambs handle them as little as possible and curb your temptation to make pets out of them. A very tame ram lamb can grow up to be a very disrespectful threatening adult. These can be dangerous and if you simply cannot resist temptation and this does happen your best option will be to neuter him.

Coccidiosis is a common problem with lambs, especially bummers. Lambs are generally infected shortly after birth, but clinical signs (scours) don't show up until after a 17 day incubation period and most outbreaks occur in three to eight week old lambs. Treating the ewes prior to and throughout lambing season with a feed supplement medicated with a coccistat can greatly reduce the incidence and severity of attacks in the lambs by reducing the number of eggs shed in the ewes droppings. However, this does not mean you will avoid the problem entirely and if you see soupy green stools, the lamb appears to be lethargic and or depressed this can be an indication of coccidiosis. Once lambs have it they further contaminate their environment and pass it on to others. Often cases will clear up on their own in a few days, but if they do not, are severe or if the entire flock is infected have a fecal sample evaluated by your vet to get an accurate diagnosis and treatment plan. Treatment is relatively easy, but left unattended it can be a very serious problem.

Baby shots

All lambs on my farm receive a vaccination of 2cc of Covexin-8 at four weeks of age followed by a second 2cc dose 21-28 days later. Opinions vary as what age shots should be given and range from four and eight weeks. Because I vaccinate the ewes about one month prior to lambing the immunity the lambs receive from their mothers will protect them for a short period (about a month) after they are born. Opinions also vary as to what vaccine to use. Many people prefer CDT (Clostridium Perfringens Types C & D-Tetanus Toxoid) to Covexin. Both will protect lamb for the first year after which it will need an annual booster. I try to band ram lambs (see below) when I vaccinate to prevent them from having to have an extra injection.

Worming babies

On the advice of my vet I also worm lambs when they receive their second round of baby shots. Your own vet can advise you as to which is the best product for your situation and what dosage you should give.



Ewe and four week old twin lambs

Weaning

I usually wean lambs when they are three to four months old. This is the earliest age they can to go to new owners. Ram lambs can become fertile as young as four months and so should be watched carefully and separated at this age. Ewe lambs that stay here I let the mother wean herself when she is ready. Mothers and daughters especially tend to form lifelong bonds and hang out together. When possible I try to keep them together.

Banding - Castration (neutering ram lambs)

Which method is the most humane to use for neutering (wethering) a male Soay is a hotly debated topic and opinions vary widely. Do some homework and decide which is the best method to use on your farm. In the USA a widely used technique and the one I feel most comfortable with is banding (ringing). This is done between four and eight weeks, but is dependent on the size of the lamb. In the UK however, it is illegal to band a lamb after the first week, it may vary in other countries. Elastrators and bands (with instructions) are available at feed stores and through catalogues. I try to coordinate banding with vaccinations so that the lambs do not have to have an additional tetanus shot which must be given when banding. A burdizzo, an instrument designed for bloodless emasculation, is another option often used for older animals. But I prefer to have my veterinarian surgically castrate adult rams and lambs that are too large to band.

OAPs (Old Age Pensioners) For your old timers or animals with weight loss problems

Often when a sheep reaches old age weight loss becomes a continuing battle, this can be due to a variety of things including trauma, problems with teeth or just old age. I supplement these animals with a special ration suggested by a friend in the UK but adapted to products that I have here in Oregon. I refer to affectionately "Cration" (after my friend Christine) and my sheep love it. It consists of moistened sugar beet pulp, rolled barley or whole oats and a commercial pelleted sheep ration. It is especially good for old animals who have problems with their back teeth. The recipe is as follows: 1 cup dry sugar beet pellets (available at the feed store) with 2 cups of water soak for twenty four hours. The resulting coarse meal should be very moist and soft but not runny and will be three times its dry volume . (This may make more beet pulp than you will use- vary amounts to suit your own needsa 50 lb. bag lasts forever). Mix three parts soaked beet pulp, 1 part barley and 1 part ewe and lamb ration. (For rams or wethers omit the ewe and lamb ration, an alfalfa based feed, and use more beet pulp.) This makes enough mash for three sheep. Because several of my "seniors", ages 14 to16, are constantly struggling with weight loss they are given this portion twice a day in addition to a normal allotment of grass hay if they can eat it. Some can not. Adjust your portions as needed.

Miscellaneous

- poisonous plants and special trees

The Soay is a browser and as such enjoys a variety of vegetation in its diet when given the choice. There are numerous plants that are toxic to sheep and before turning your sheep loose in a pasture you should carefully check for things that might poison it. Your county extension agent can be a good resource for what poisonous plants are found in your area. You should also familiarize yourself with landscape plants that can be harmful if eaten. Rhododendrons, azaleas, oleander, bleeding heart and larkspur are the most widely known. There are also a number of books and websites available (a few are listed below) that will be helpful.

As a browser you will find the sheep does eat the bark of some trees and rams love to rub their horns especially on pine trees. If there is a tree in your pasture that you do not want eaten or girdled you will need to protect it. Remember they will also stand up on their back legs to reach an especially tasty morsel.

Some precautions - things you might not think of -**bungee cords-** things that dangle

The bungee cord is one of man's better inventions and has a wide variety of uses around any farm, but it can also be a hazard and one we generally do not think of. The Soay in its curiosity, especially young animals, love to fiddle with things that dangle, ropes, chains and bungee cords. On two occasions I have found a sheep hanging from a fence caught in the upper lip with the hook of a bungee cord. In playing with the dangling cord they managed to get the hook caught in their mouths and could not escape. I now always stretch bungee cords horizontally using both hooks on the fence when they are not in use.

- water troughs and water buckets

In spite of their tiny size frolicking lambs can jump into water troughs that are two feet over their head, I have rescued several. I am now careful to use sheep water tanks (which are short) and as a further precaution always put two or three cinder blocks in them so that if a lamb does somehow fall in, it has something to stand on. Newborns can also fall into water buckets. When jugging newborns (confining in a small pen) with their mothers where you must provide water for the mother hang the bucket above the ground where the mother can reach it but the lamb cannot. This can be done with a chain or with a variety of commercial bucket holders which are available through catalogs and at sheep shows.



Water bucket holders. from UK. They can be hung at any height on a fence or gate, over a pole or a board and when not in use the bucket is removed and the holder lies flat against the wall

Shipping your Soay (How do I get my Soay Home)

There are a number of ways to transport Soay sheep and to keep a conservation breeding program expanding shipping is an important topic. Two Soay lambs or a single ewe fit comfortably in a large dog crate however, a sturdier box or container is generally required for an adult ram. This makes them easy to transport in a pickup or even the back of a SUV or similar vehicle. For relatively short distances, a matter of hours rather than days, this is a very easy option and dog crates are readily available used at garage sales and second hand stores. For longer trips air and truck transportation are viable options. Airlines have very strict guidelines (including which types of crates may be used) which must be followed, but are a quick way to go greater distances. Always try to pick the shortest route with the fewest stops and changes of flight. Our first ewe and rams were nearly left in Vancouver, B.C. on their way from Montreal to Oregon, because the connecting cargo plane was full and the airline could not reach us (we were on the road to get them) to confirm that we would be at their destination to pick them up. Truck transportation has also worked very well for me and I have used the services of Ron Keener a number of times over the last several years. He does an outstanding job of caring for your animals. Ron delivers animals from door to door anywhere in the US. He is one of the very few who is still providing this service. His unique use of the Yahoo Groups allows you to follow his trip in real time and keep track of how your animals are doing. He makes several trips a year. For information write to Ron Keener at his Yahoo Group when he is on the road or rkeener@realtime.net when he is not for pricing, schedules and an explanation of how his system works.

Before your sheep can leave your farm they will need proper scrapie identification (ear tag, tattoo or microchip) from the USDA (see scrapie ear tag note below) and if they are crossing state lines, a health certificate from your veterinarian. This will require you to take sheep to the vet or to have the vet come to your farm. Each state has different requirements for admitting sheep into their state and your veterinarian can contact them to find out what test may be required. Usually animals less than six months old have fewer regulations. If shipping older animals blood tests are often required which must be sent to the State Veterinarian's office, so be sure to plan far enough ahead to allow for the results to come back from the state to your vet. Their permit number must be on your health certificate. Health certificates are valid in most states for 30 days.

Travel is very stressful for the Soay and so try to reduce that stress as much as possible. I only ship lambs commercially in the fall, when temperatures are cooler they have been completely weaned and their vaccinations and initial worming are a month behind them. If adult sheep require worming, be certain that it is done a number of days (a week) before and not on shipping day. As a precaution I also give each of my animals a bit of Probios paste as we put them on the truck. When the sheep arrive at their destination they should be isolated from other stock on the farm and if at all possible not be separated from their travel companions. Let them adjust to their new environment before they are further stressed by separation into different groups.

A Note about the USDA Scrapie Program:

ear tags and shipping sheep

Any sheep that leaves your farm, even to attend a one-day show, must be permanently identified with an APHIS (USDA) approved ear tag, microchip or tattoo, but those animals in the Mandatory Scrapie Program that will never leave your farm do not. All animals in the Voluntary Scrapie Program must be tagged for inspection. Regulations and methods of tagging are constantly changing. For complete current information about USDA Scrapie program rules visit: <u>Scrapie</u> <u>Flock Certification Program</u> or contact your District <u>Animal Health Area Office</u>. Plan well in advance for enrollment in either of their programs so that your sheep will have permanent identification when the vet comes for to inspect your sheep for their Health Certificate.

Some thoughts on biosecurity

Biosecurity is a topic in and of itself and one which behooves every animal breeder to investigate. There are a number of excellent websites that explore the subject in depth: The American Sheep Industry Association <u>http://www.sheepusa.org/</u>* and <u>http://www.sheep101.info/201/biosecurity.html</u> are two good places to start. Protecting your animals from disease must be a top priority for all breeders and each farm should have a program of its own. The level of biosecurity you must practice will be dependent on your individual situation. According to *the American Sheep Industry Association's Bio Security fact sheet* Biosecurity has three main components. These are:

- 1. Isolation = the confinement of animals away from other animals. Whenever you add new Soay to your flock quarantine them for at least a week to ten days in a case where you know and trust the farm from which they came and thirty days if you do not. While their home farm not have problems animals can be carriers of diseases that while not affecting them can be introduced to your farm through coughing and sneezing. Work with keepers you know and trust. A strict thirty-day quarantine is especially important if your sheep have been commercially transported with livestock from a variety of other farms. Isolate new sheep from pregnant ewes if possible until after lambing. New sheep that may show no clinical symptoms themselves can still carry organisms for such diseases as Campylobacter or Chlamydia which cause abortion, something you do not want introduced to your farm.
- 2. Traffic control = movement of people, animals, vehicles and equipment. At a minimum when visiting other farms take boots that you do not wear down to your own barn or sanitize the ones you do. Remember to do the same when you return home. This is especially true when returning from sheep shows, fairs or any place where a number of farmers have gathered. Often other farms will have boots for guests to wear in their paddocks and it is a good practice for you to do so as well. This will help prevent pathogens from being carried back and forth between the two farms.
- 3. **Sanitation/Husbandry** = cleanliness and care of animals and their environment Do not let your animals share feeders or water buckets with your new animals and wash out their buckets with bleach before you move them to other parts of the farm. If you bring equipment home from another farm be certain to sanitize it.

Be aware and use common sense. If your farm is small and you don't have much interaction with other farms or other animals your biosecurity program may not need to be elaborate, but you should have one.

Conclusion

In conclusion I have tried to present here the most basic instructions for the care of your Soay. We strongly urge you to read some of the fundamental manuals available. There are a number of sheep lists on the Internet, which can also provide you with answers to many of your questions. You will be surprised at how quickly you learn about the care of your Soay and you will find that it will not be long before you are mentoring to a novice keeper yourself. Most of all enjoy your sheep.

Suggested Reading

Parker, Ron, *The Sheep Book: A Handbook for the Modern Shepherd, Revised and updated*, Athens, Ohio, Ohio University Press. ISBN 0-8040-1032-3

Simmons, Paula and Ekarius, Carol, *Storey's Guide to Raising Sheep, Breeding, Care, Facilities,* Storey Communications, Pownal, VT, ISBN 1-5-8017-262-8

Weathers, Shirley A., *Field Guide to Plants Poisonous to Livestock, Western U.S.,* Fruitland UT., Rosebud Press, 1998. (Rosebud Press: P.O.Box 270090, Fruitland, UT 84027-0090) ISBN 0-9660397-3-4

Whitson, Tom, D., editor, *Weeds of the West*, University of Wyoming, Western Society of Weed Science, revised 1992 ISBN 0-941570-13-4

Castell, Mary. *Starting With Sheep* available from Country Smallholding, Tel: 08700 718 817 (7 days a week, 24 hour) Postal Book Orders: Country Smallholding Bookshop, PO Box 60, Helston, TR13 0TP ISBN 906 137 28 4 Email: books.csh@archant.co.uk

Weaver, Sue,. *Storey's Guide to Raising Miniature Livestock,* North Adams, MA Storey Publications, 2010. ISBN 978-1-60342-481-3 **includes Soay sheep** and is an excellent resource for beginners.

Winter, Agnes C. and Hill, Cicely W.A. Manual of Lambing Techniques. Ramsbury, Marlborough: The Crowood Press Ltd. 2003 ISNB1-86126-574-3

Resources on the Internet

I have included a number of resources which I have found very helpful on the links, literature and suppliers pages of this website. Links - Literature - Supplies-

<u>*Viewpoint*</u> is a free monthly farm e-newsletter which has more in-depth information on many of the topics mentioned here.

Supply companies.

Jeffers

livestock supplies, including vaccines, veterinary syringes, fencing supplies, clothing, boots, even boot repair kits.etc. P.O. Box 100. Dothan, AL 36301-0100 Phone 1-800-533-3377 <u>http://www.jeffersLivestock.com</u>

Pipestone Veterinary Supply

Livestock (sheep and goat) Antibiotics to vitamins (including **Nurse Mate**) plus a library of articles, archive of photographs of topics from blood collection to white muscle disease, and a list of management tips. PO Box 188, 1300 Hwy 75 S., Pipestone MN 56164 [507] 825-5687 (information line only) [800] 658-2523 (orders only) <u>http://www.pipevet.com/default.htm</u>

Valley Vet Supply

Complete line of animal health care products (prescriptions, OB wire saws, wormer, vaccines)

1118 Pony Express Hwy., Marysville, Kansas 66508 1-800-419-9524 <u>www.valleyvet.com</u>

Shaul's Mfg.

Livestock handling equipment, light weight panels (hurdles in the UK), feeders. They will custom make anything to suit your needs. 2890 Maple Street, Sutter, California 95982 530-755-0861 www.shaulsmfg.com

*Click on *online Resources*, type in Biosecurity, click on Biosecurity Footnote: Simmons, Paula, *Raising Sheep the Modern Way, Updated & Revised Edition.* Pownal, VT, Storey Communications, Inc., 1989 p.189



The End

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