What are the signs that a ewe will lamb imminently?

- Ten days before lambing, the udder begins to fill and the teats become swollen with colostrum.
- Progressive swelling of the vulva continues from approximately 10 days before right up until lambing.
- Body temperature declines approximately 0.5°C in the last 48 hours before birthing.
- A few hours before lambing, ewes stop eating and separate from the rest of the flock and they may nest by pawing up bedding.
- The most obvious sign of lambing is the appearance at the vulva of the chorioallantois or water bag.
- Occasionally, the water bag will have broken within the vagina, in which case the fleece will appear wet.
- To understand the description of correcting a dystocia, the presentation, position and posture of the lamb is usually described.
- More specifically, the presentation of the lamb is described as being anterior or posterior (head first or hind feet first); the position as being either dorso-sacral (upside right or the top of the lamb’s head next to the sacrum of the ewe); dorso-pubic (upside down or the top of the lamb’s head next to the pubic bone of the ewe); or dorso-ileal (sideways or the top of the lamb’s head next to the ileum; and posture of the lamb’s head and/or legs if they are not in the normal extended posture (e.g. head back, front leg retained, breech in which both hind legs are retained).
- The normal birthing presentation is anterior dorso-sacral with the forelimbs extended and the nose appearing shortly after the feet.
- Delivery should only take a few minutes and be complete within 30 minutes at the most.
- The first lamb born, especially if is a singleton, may take the longest amount of time, with subsequent lambs being born more quickly.
- Ewe lambs generally require more time to give birth and up to a one-hour delay between lambs is not uncommon.
How do I prepare for lambing?

- Prior to lambing ewes should be shorn as this will increase feed intake, improve cleanliness and decrease humidity in the barn.
- If conditions are too cold to allow for shearing, excessive wool or hair should be sheared from the udder and perineal regions of the ewes. This is called crutching.
- Crutching will aid hygiene and allow you to visualize any dystocias. It is also easier and healthier for lambs to nurse as they are not sucking on wool or hair.
- Provide private or secluded areas within the lambing area about one week before lambing is to begin. Ewes will seek out privacy to lamb and it will be easier to prevent mismothering and lambs from wandering off and becoming chilled.
- In confinement production units, mothers and newborns should be housed together in claiming pens for 24 hours to encourage bonding.
- Suitable pen dimensions are 1.2 by 1.5 metres (four feet by five feet).
- Feed and water should always be available for the mother.
- The pens must be clean and very importantly dry, with sufficient bedding to protect the newborns from drafts and from becoming wet and chilled. The panels should be sufficiently close together to prevent the lamb from crawling out and becoming mismothered.
- Heat lamps do not need to be used unless the lamb is damp. Remove as soon as the lamb is dry.
- In pasture production units, claiming pens are not used, but providing protection from the elements is still necessary. This can be done by placing straw bales or other protection so that the ewe and lambs can get out of the wind.
- For a lambing checklist, visit: http://www.mbsheep.ca/assets/lambingchecklist.pdf

What should I expect once the lambs are born?

- Newborns should be standing within 20 minutes of birth.
- Shortly after standing they will make their way to the udder to nurse. They are attracted to the flank by smell and by the shape of the flank and udder.
• Misshapen teats, low udders or excessive wool or feces can impair the nursing process.
• Newborns can be checked frequently to assess their feeding status by observing them for abdominal fill. If you are unsure, put the lamb in a bucket and weigh them at birth and in one hour to check for weight gain.
• If newborns are too weak to nurse or if the mother refuses to allow them to suckle, they will need to be fed colostrum within two hours of birth – most likely by stomach tube.

**Why is colostrum feeding so critical?**

• Colostrum is a secretion only available in the first milking after giving birth. It contains a high level of protective antibodies as well as extra nutrients compared to milk. Thereafter, the quantity of antibodies in the milk decreases rapidly.
• It is critical that the lamb receive colostrum very soon after birth – within 30 minutes.
• The lamb is born unprotected and must obtain 100% of its immunity from the colostrum.
• If it accidentally ingests bacteria from the environment (e.g. from dirty wool or bedding) before getting its colostrum, then these bacteria will multiply unrestricted in its body and kill the lamb before it is one-week old.
• If it receives some colostrum but too late or not enough, even though the environment is clean, it may survive the first week but be much more susceptible to diseases such as diarrhoea, pneumonia and joint illness.
• Lamb nurse nipples are available at farm supply stores.
• Very weak newborns will need to be fed by stomach tube.
• The initial feeding should be at a rate of 50 mL per kg (23 mL or 1 oz per lb) of body weight and lambs should receive a total of 200 to 250 mL per kg (3 to 4 oz per lb) over a 24-hour period.
• Colostrum is the first milk only and can be obtained by milking the mother or from healthy flock/herd mates that have just lambed. It is advised that you freeze colostrum to have on hand in case a ewe lambs without sufficient colostrum.
• Colostrum should be frozen in 50 mL (2 oz) quantities and can be safely stored for up to six months in a chest freezer.

*It is critical that the lamb receive colostrums very soon after birth – within 30 minutes.*
• Thawing and warming to body temperature should be done slowly, using warm water only, as microwaving and excessive heat will destroy the antibodies.
• Cow colostrum may also be used; however, colostrum from another species represents a poor second choice.

What should I do if a ewe has birthing problems?

• A difficult birth is called a dystocia.
• The vast majority of lambs are born without incident.
• The most common malpresentation is backwards although lambs may deliver normally without help in this presentation.
• Malpositional problems are not too common except during twin births. Occasionally, a check may reveal that a lamb is upside down but not in the pelvis. Often if left alone, the lamb will flip itself around before being born. If the lamb is dead, or already in the pelvis, this won’t happen and its position must be corrected manually.
• Postural abnormalities are quite common, e.g. head back – which may be because the lamb is large and the head is deflected when trying to enter the ewe’s pelvis; leg back – often for the same reason. Twin births may also cause postural problems. Breech posture is less common.
• Occasionally, the cervix is not fully dilated even though the ewe is straining and the water is broken. This may be due to a malpresentation, position or posture that prevents the lamb from entering the pelvis and pushing the cervix open, or it may be due to a condition called “ringwomb” in which the cervix remains rigid and cannot dilate. Usually a caesarean section is needed to correct this dystocia.
• Intervention may also be required for any one the following circumstances:
  o The ewe has been straining for more than 30 to 40 minutes without progress.
  o The water bag is visible and no progress has been made after 30 minutes.
  o The lamb appears to be stuck. There has been no progress for several minutes since the limbs have appeared.
  o The head of the fetus is visible with no limbs present.
Most successful interventions are completed in less than five minutes.

If no progress is made in 10 minutes, then something else must be done.

Do not be afraid to seek veterinary assistance.

It is most helpful to establish a relationship, before the lambing season, with a veterinary service that offers food animal emergency services.

Veterinarians are typically generous with advice and are invaluable resources regarding flock health.

To prepare for possible intervention the following should be available:

- Soap – one that is safe for obstetrical use, such as betadine scrub.
- Obstetrical lubricant.
- Shoulder-length, plastic, disposable obstetrical sleeves.
- Lamb snare, soft rope, or rolled gauze.
- Clean towels.
- Clean, warm water in a clean (obstetrics only) pail.
- Halter to retrain the ewe.

Two-inch rolled gauze can be easily transformed into a soft rope for providing traction on limbs and should be discarded after a single use. One loop of the rope must be placed above the fetlock and the other below. This is done to protect the newborn’s joints from the traction placed on the leg during delivery.

One separate rope is to be placed on each limb.

In many cases, it is possible to obtain a suitable grip, especially around the head, just with a sleeve-covered hand.

What is the proper procedure to intervene in a birth?

- **Cleanliness** should be utmost in the mind of the operator who is preparing to intervene.
- Poor hygiene can lead to a severe infection of the uterus and death of the patient.
- The ewe must be suitably restrained.
- The area around the anus and vulva should be washed clean of any feces or blood.
• Chlorhexidine scrubs and very strong iodine-based disinfectants should be avoided as these can be very irritating to the vagina and uterus and may cause irreparable damage to the uterus.
• Any excessive water should be dried away using either paper or cloth towels, so that dirty water is not dripping from the wool and being carried into the reproductive tract by the operator.
• A fresh, clean sleeve should be put on and lubricant applied generously to the finger, hand and forearm portions.
• Obstetrical lubricants containing polyethylene polymer, for example J-Lube®, should not be used as leakage of these products into the abdomen, as a result of a uterine tear or caesarean section, may result in death of the ewe. K-Y Jelly is preferred.
• Prior to the examination, finger nails should be trimmed so as to avoid perforation of the sleeve.
• After use, the sleeve should be discarded and all toweling should either be discarded or thoroughly washed before re-use. It is essential that they are securely discarded (such as immediately placing in a burning barrel) so that dogs and sheep cannot be exposed to them later.
• Do not wash re-usable toweling in the washing machine in your house, unless suitable precautions have been taken to prevent disease transmission from the barn to the house.
• **Gentleness:** All obstetrical interventions must be as gentle as possible.
• Excessive force can lead to damage, vaginal or uterine tearing or even death.
• Most obstetrical procedures are most easily performed in standing animals.
• If the animal is unable to stand then perhaps the dystocia is very severe, very long standing, or complicated by a medical condition, in which case veterinary assistance should be sought.
• Once your hand has been inserted into the vagina and identification of the fetal parts has been achieved, the usual first step is to gently push the fetus back into the uterus (repulsion).
• In some cases, it may not be possible to push the fetus all the way back; however, in many cases just a couple of centimetres may be all that is needed.
• It is important to constantly reassess the situation. Make sure that all of the limbs in the vagina are attached to the same fetus and that the viability of the fetus is not being compromised.
• The hock joint of a hind limb feels very different from the knee joint of a forelimb, so it is prudent to familiarize yourself beforehand by palpating the limbs of other newborns.
• Once the lamb has been delivered, check that it is breathing.
Clear the nostrils and mouth of placental tissue and mucus, then rub the chest and body vigorously using a clean towel.

If a lamb is slow to breath despite rubbing, a bit of cold water in the ear will cause a reflex gasp and head shake, which will help to get the lungs expanded.

Try to avoid swinging or hanging the lamb upside down. Whereas this will help to expel mucus, it makes it very difficult for the lamb to breath.

Do not give mouth-to-mouth resuscitation. It won’t work and it exposes you to possible zoonotic diseases that the lamb may be carrying.

Once normal breathing has been clearly established, the newborn should be placed in front of its mother so that she can continue to lick off her offspring and begin the bonding process. The licking process is also important for stimulating the lamb to breath and move, and it critical for ewe-lamb bonding.

Always remember to check the uterus for additional offspring.

Do not give mouth-to-mouth resuscitation. It won’t work and it exposes you to possible zoonotic diseases that the lamb may be carrying.

What if the ewe cannot raise all of her lambs?

There are two options: the lamb can be cross-fostered to another ewe or it can be raised artificially on milk-replacer.

Indications for this include:

- Rejection of offspring.
- Weak newborns.
- Too many newborns (e.g. triplets on a ewe lamb or a ewe with one gland).
- Illness or death of the mother (e.g. mastitis).
- Disease prevention.

How do I foster lambs?

There are a variety of techniques for cross-fostering.

Fooling the mother into believing that the animal is her own offspring by scent manipulation is very commonly done.

If her own lamb has been lost, then the fresh hide can be skinned and tied onto a foster animal.
• Alternatively, birth fluids from the foster mother can be used to wash the foster animal, or the placenta rubbed onto the foster lamb to transfer the ewe’s smell.
• Another method is to place the ewe in a small pen with stanchion or head gate along one side.
• Ideally, the lambs should not be able to access the ewe’s head. The ewe and lamb(s) should be left together for two full days, then the ewe released. If she accepts the lamb(s), put them in a mothering pen for a few days to continue the bonding process.
• If she rejects the lamb(s), further attempts are likely to be unrewarding.
• The stanchion also works well for poor mothers who have rejected their own lambs.
• As a rule, poor mothers should be culled at the first opportunity.

What is a retained placenta?

• Normally, the placenta separates from the lining of the uterus right after birth.
• Retained placenta is the failure to pass the afterbirth within 12 hours of birth and is an uncommon occurrence.
• Retained placentas are most common if there is a retained lamb still in the uterus, or if the lambing has been difficult and prolonged.
• Most ewes will not require specific treatment unless they appear to become dull, depressed and have an elevated body temperature in excess of 40.0°C (normal body temperature is 39.5 ± 0.5°C).
• These signs of illness are actually due to metritis, which develops secondarily to retained placenta.

What is “metritis”?

• A very severe infection of the uterus occurring within the first few days after delivery of the lambs.
• Often follows retained placenta.
• Typical signs include fever in excess of 40.5°C (104.9°F), depression and reduced or absence of appetite.
• The presence of a foul smelling, dark brown, watery vaginal discharge.
• This disease is life threatening and veterinary attention should be sought immediately.

What is a uterine prolapse?

• Sometimes after a hard lambing, the uterus will prolapse. This can happen immediately or a few hours later.
• The appearance is red, swollen with the appearance of squashed strawberries.
• This is a medical emergency – call the veterinarian immediately and then confine the ewe to a small area with clean straw until they arrive.

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If signs of illness are noticed, you should consult your veterinarian to determine a suitable course of treatment.