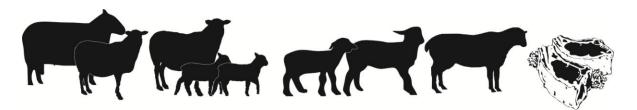


DR. ILEANA WENGER
OC FLOCK MANAGEMENT



" My flocks feed not, My ewes breed not, My rams speed not,

All is amiss."

Sonnets to Sundry Notes of Music

Shakespeare



- Late Gestation
- Lambing facilities
- Preparation for lambing
- Normal lambing vs dystocia
- Assisting the ewe
- Care of the neonatal lamb
- Why did it die?
- Hypothermia-Starvation
- Improvements for next year



- Late Gestation care of the ewe
 - Average gestation 148 days
 - BCS or 3 3.5 at lambing
 - Too fat prolapses, pregnancy toxemia, dystocia
 - Too thin pregnancy toxemia, small weak lambs
 - Need adequate fat cover for lactation
 - Good colostrum quality, milk production
 - Increasing plane of nutrition in last 2-6 weeks
 - Good quality hay for protein, grain for energy
 - Trace mineral/vitamin intake feed or inject?
 - Nutritional management depends on:
 - Prolificacy, size, season, age, pasture,
 - Vaccination 4 weeks prior to start of lambing
 - Essential for best quality colostrum
 - Crutching vs shearing
 - Season, breed, pasture vs intensive



- Lambing Facilities
 - Pasture lambing vs pen lambing vs barn lambing
 - Pros and cons to each system
 - Weather protection from inclement weather, grass growth
 - Predator and parasite control
 - Routine management procedures docking, castration, tagging, navels



Preparation for lambing

- Lambing "jugs"
 - Minimum 4' x 5'
- Hot box
 - To warm hypothermic lambs
- Veterinary supplies
 - Ewe care nutritional support, antibiotics etc.
 - OB lube, sleeves, lamb puller,
 - Lamb care colostrum, stomach tube, dextrose etc.
 - Variety of syringes, needles
 - Navel care to dip or not to dip?

Management supplies

- Ear tags or other identification system
- Docking, castrating equipment within 7 days
- Record keeping system PSION, paper records

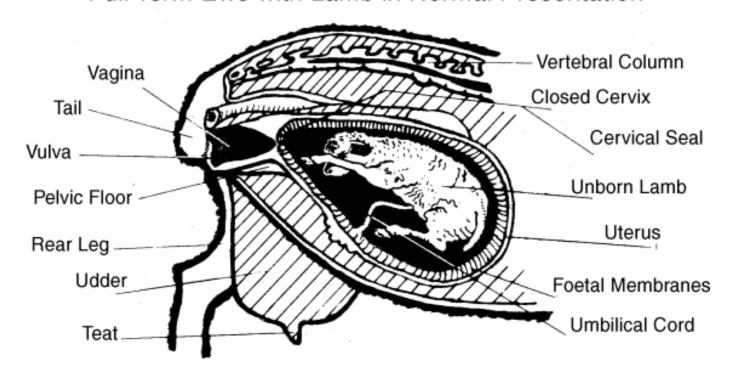




Normal lambing

- Udder fills with colostrum (starts 14 days prior)
- Vulva swollen and soft, ligaments loose (several days prior)
- Ewes separates herself, nesting, off feed (several hours prior)

Full Term Ewe with Lamb in Normal Presentation



Normal lambing

- Stage 1: Cervical dilation (3-4 hours) often do not notice
 - Uterine contractions +/- straining, up and down, "cooing", pawing, circling
 - Loss of mucous plug
 - Appearance of waterbags
- Stage 2: Expulsion of lamb(s)
 - Abdominal contraction leads to rupture of waterbags
 - Lambs should be delivered within 1 hr of rupture
 - Normal presentation is nose/toes
 - 30-30-30 rule of thumb
 Examine after 30 min of straining
 If all well an additional 30 min
 30 min between lambs
- Stage 3: Expulsion of Membranes
 - Within 2-3 hours
 - If longer than 12 hours considered retained
 - Do not allow ewe to eat



- Dystocia = difficulty in the birthing process
 - Most common is malpresentation of lamb(s)
 - Other causes
 - Pregnancy toxemia/hypocalcemia
 - Ringwomb
 - Stress some ewes cease lambing if disturbed
 - Signs of dystocia
 - Straining for 30min- 1 hr and no progress
 - 1hr+ after waterbag breaks and no progress
 - Visible abnormal presentation (head only)
 - Dark discharge (meconium)
 - Ewe lambs vs mature ewes

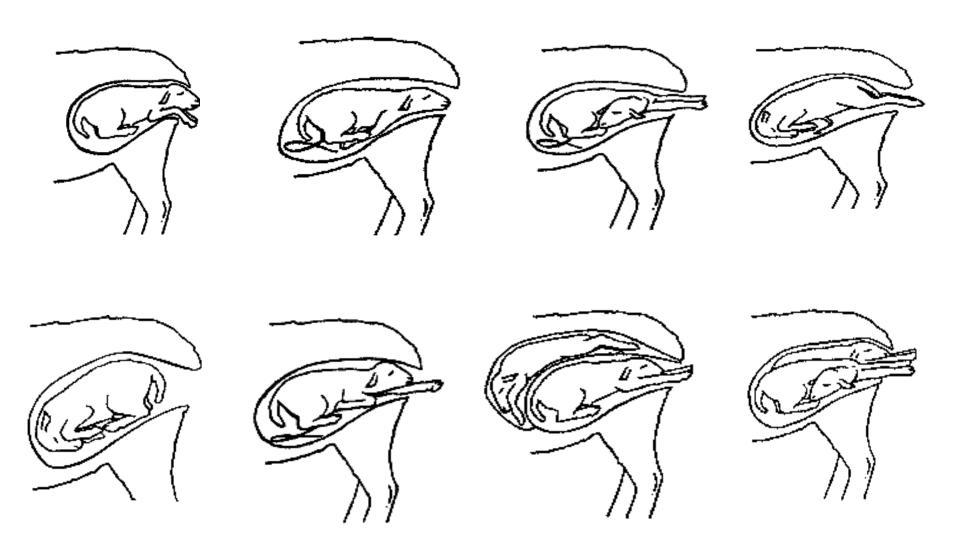


Assisting the Ewe

- Good restraint
 - Standing vs down
- Be clean wash vulva with disinfectant soap and dry
- Plastic sleeves available for small hands
- LUBE, LUBE, LUBE......
- Assess the situation
- Lambing aids
 - Head snare, lamb pullers, clean twine
- Correct the problem
 - Be gentle uterus can tear easily
 - Frontwards pull in a downward arc
 - Backwards pull straight out
 - Use lots of lube
- If you pull one, pull them all
- Always check for one more lamb
- Antibiotics for ewe if difficult or prolonged assistance



Lambing Malpresentations



- Care of the Neonatal lamb
 - Breathing? swing to clear mucous, stimulate
 - Do not do mouth-to-mouth
 - Ewe should start licking right away
 - Give ewe time to bond with lambs
 - Strip teats of ewe
 - Lambs should be up and nursing within an hour (many are up within minutes)
 - If lambs are weak tube with colostrum
 - Dipping navels ??
 - Clean, dry bedding
 - Time to bond
 - Spray vs dip





Colostrum requirements

- Remember to vaccinate ewes 4 weeks prior to lambing
- 50-70mls/kg every 6 hours x 3 feeding
 5kg lamb needs 250mls-350mls every 6 hours (1 1 ½ Cups)
 total requirement of 750-1050 mls in first 18 hours
- After 24 hours no longer absorb antibodies from colostrum







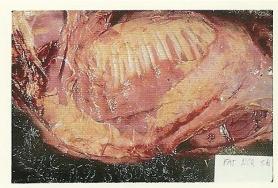
- What are my Lamb Losses? When? What?
 - Prelambing abortions
 - Neonatal hypothermia/starvation most common
 - Pre-weaning pneumonia, clostridial, predators
 - Weaning to market –pneumonia, clostridial, parasites, predators
 - Tagging and record keeping essential
- Target of 5% lamb loss.....this would be exceptional !!
 - 10-15% or more is common
- Most lambs are lost in the first week of life

Why did it die?





Figure 2—Cut the skin under the front leg and fold the cut leg over the back of the lamb. Next cut the cartilage junction of the ribs and sternum and continue this cut through the skin and muscle up the flank to the point of the hip.





Figures 6 & 7—Notice the normal amounts of tan fat covering the ribs and chest muscles of a newborn lamb (figure 6). Compare this to the lack of fat cover in a 5-day-old starvation lamb (figure 7).

• From "Why Did It Die" J.S. Rook DVM Michigan State University

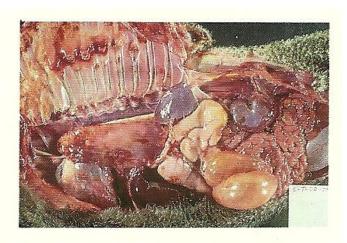
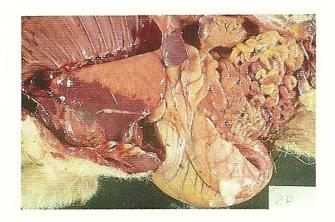


Figure 11—Many lambs die from more than one cause. Notice the fractured ribs and punctured lungs typical of a traumatized lamb. The owners thought that this lamb had been crushed. However, further examination revealed a starvation kidney and empty stomach. Starvation was the primary cause of death. Starvation underlies many trauma and pneumonia deaths.

■ From "Why Did It Die" J.S. Rook DVM Michigan State University



Figures 12 & 13—Lambs dying from pneumonia usually will have a sharp line of demarcation between normal (pink and spongy) and diseased lung tissue. The dark reddish-purple, firm diseased area is usually located to the front and bottom of the lungs with the normal area usually positioned to the top and back. This is obvious in both figures 12 and 13. Figure 12 shows the sudden severe pneumonia that often occurs in 1- to 2-day-old lambs. Figure 13 shows a more chronic condition with round, yellow abscesses distributed throughout the diseased portions of the lung.

- Hypothermic lamb
 - Normal T= 38.5 39C
 - < 37.5C = severe hypothermia</p>
 - Intraperitoneal injection of glucose

You have nothing to lose!



- Normal temperature: 38.5 39.0 C (101 -102 F)
- Increased temperature: > 39.5C (103 F) think infectious problem
- Decreased temperature: 37.5 39 C (99 101 F) = mild hypothermia
- < 37.5 C = severe hypothermia

TREATMENT FOR MILD HYPOTHERMIA

- 1) Remove from ewe and towel dry
- 2) Tube feed with colostrum at 20 mls/lb (50 mls/kg)
- 3) Place in warming box
- 4) Return to ewe when rectal temp. normal
- 5) Be sure ewe accepts lamb



Treatment of Severe Hypothermia

< 5 HOURS OLD

- 1) Remove and dry
- 2) Tube feed colostrum if conscious
- 3) Place in warming box
- 4) Return to ewe when temp normal
- **5)** Be sure ewe accepts lamb

> 5 HOURS OLD

- 1) Remove and dry
- **2)** Tube feed colostrum if concious
- 3) Intraperitoneal injection of glucose
- 4) Place in warming box
- **5)** Return to ewe when temp normal
- 6) Be sure ewe accepts lamb

Monitor temperature - do not overheat.







- Preparation of solution (for average 4.5kg lamb)
- draw 20mls of 50% dextrose into the syringe
 - draw 30mls of freshly boiled water into the syringe and mix gently
 - this mixture will be an appropriate temperature for injecting



- Improvements for next year
 - What worked, what didn't?
 - Post mortems of dead lambs
 - Management ?
 - Nutrition?
 - Disease?

Record keeping





MANAGEMENT, NOT MEDICATIONS

