CONTROL OF ABORTION AND RINGWOMB IN EWES

Kevin D. Pelzer, DVM, MPVM
Virginia-Maryland Regional College of Veterinary Medicine

**ABORTION:** expulsion of fetus before the normal end of pregnancy
lambs may be dead or born alive (premature)

**What to do when abortions occur:**

1. Assume that abortion is infectious in nature
2. Isolate aborted ewes, identify
3. Remove aborted lambs and after births, either bury or burn
4. Remove bedding, apply lime to contaminated area
5. Wear rubber or plastic gloves -- Wash hands thoroughly
6. Contact health professional
7. Place the fetus and membranes in a plastic bag and send to lab immediately

**Discovery of cause:**

1. Over 50% of the samples sent to lab yield no results
2. Samples contaminated with bedding
3. Decomposition
4. Insufficient material submitted - need to submit placenta and fetus
5. Wrong samples submitted
6. Abortion caused by something other than the infectious agent screened for.

**What to collect for the veterinarian:**

1. Management practices, feeding practices, housing, pre-lambing procedures
2. Source of female replacements
3. History of previous abortions, lambings, and lambing percentages
4. Vaccination history
5. Prediction of start and end of the lambing season
6. Stage of pregnancy when abortion occurred
7. Health status of ewes

**What to send to the lab:**

1. Fetus and placenta
   - submit the whole thing
   - keep chilled but do **not** freeze
   - submit in a leak proof container
   - submit as quickly as possible
2. Serum from ewes
   - collect a blood sample from all aborting ewes and a sample of still pregnant ewes.
   - Collect sample and then rebleed about 3 weeks later.
   - Separate blood clot from serum and freeze serum
   - Submit the two samples together

Blood from ewes
   - collect in a purple top tube (EDTA)
   - Selenium levels and virus isolation

3. If you can’t submit the whole fetus immediately
   Collect the following and chill
   - fluid from the chest cavity – sterile syringe and needle
   - fluid from the stomach
   - cotyledons – buttons on the afterbirth
   Collect the following in 10% formalin
   - liver, lung, kidney, stomach, small intestine, lymph nodes, spleen, adrenal glands, cotyledon and brain

4. South Dakota State University
   Department of Veterinary Science
   Animal Disease Research and Diagnostic Lab
   North Campus Drive
   PO Box 2175
   Brookings South Dakota 57007 – 1396
   605-688-6003

RINGWOMB

**Definition:** failure of the cervix to dilate at parturition.

**Cause:**
   a) failure of secretions of hormones that control labor
   b) failure of tissue response to hormonal secretions

**Epidemiology:**
   a) Highest occurrence is during the last 2 weeks of February
   b) Usually observed in multiparous ewes carrying multiple fetuses, majority of cases occur in ewes 2 years of age or older
   c) Usually occurs at the expected lambing date or the ewes are up to 2 weeks past the expected lambing date.

**Clinical presentation:**
   a) No noticeable swelling of the vulva or loosening of the pelvic ligaments.
b) Early signs: labored breathing while lying down and abnormally large amounts of thick, clear, vaginal mucus discharge during the last 3 weeks of gestation.

c) Usually do not show signs of first stage labor.
   - Do not seek isolation from the rest of the flock.
   - Continue to eat.

d) Udder development is slow but normal.

e) Appearance of fetal membranes without signs of labor
   - although may see straining in some cases

f) Vaginal exam findings: undilated cervix, can insert 1 or 2 fingers through the cervix into the uterus.
   If left alone for several hours, no change occurs.
   In nonproductive labor, cervical ring starts to close 2–3 hours after partial opening.

g) Spontaneous labor will occur after the fetus dies, usually 48 hours after the onset of labor. Fetuses are dead and rotten.

h) Most cases ewe will breed the following season. Consecutive cases of ringwomb usually don’t occur.

**Treatment:**

a) Administer Penicillin

b) C-section

c) If truly ringwomb, dilation of the cervix usually will result in rupture of the cervix/uterus resulting in peritonitis and death.

**Causes:**

a) Not caused by:
   - malpresentation
   - mineral imbalances or deficiencies
   - premature lambing
   - consumption of estrogenic compounds
   - infectious agents

b) Inherited condition of a recessive gene
   - appears in bloodlines
   - determined by the genotype of the fetus

**Prevention:**

a) Cull affected ewes

b) Cull females from affected ewes

c) Cull service sire

**Related conditions**

**Early Dilation Syndrome**
   - incomplete dilation occurs 7 to 14 days prior to due date
   - ewe has little or no udder development
   - cervix can usually be dilated but lambs are preivable
   - occurs in ewe lambs and first lambing 2 year olds
VETERINARY BIOLOGIC AND THERAPEUTIC AGENTS IN SHEEP PRODUCTION

R. Rorrer, K. D. Pelzer, F. Elvinger, S. Greiner
Department of Large Animal Clinical Sciences
VA-MD Regional College of Veterinary Medicine, Blacksburg, VA

At the Shepherds’ Symposium last January we introduced the idea of beginning a study to look at pharmaceuticals used in Virginia sheep production. There was an overwhelmingly positive response to the idea and many conference participants were interested in being involved with the study. It has been wonderful working with all of the study participants over the past year. The cooperation all of you have shown has been incredible and I think the results of this study will be useful. Thank you for all of the time and effort you have invested in making this project successful.

Biological and therapeutic agents are used in food animal production to maintain animal health and well being, prevent and treat disease, and to maintain or enhance production. Concerns about the use of pharmaceutical agents in food animal production have been raised, especially in relation to food quality and safety. This study addresses the scarcity of information concerning the quantity of pharmaceuticals being used and the reasons for their use in sheep production. Thirty-nine Virginia sheep producers were chosen to participate in this study of four months duration. After completing an initial questionnaire to determine management practices, participants were asked to record all treatments with biological and therapeutic agents. A total of 14310 treatments were recorded. Parasite control and vaccination were the most frequent reasons for treatment (64.9% and 15.2%, respectively) with vitamin/mineral supplementation being the next most common (8.4%). Preventative therapeutics, such as vaccines, dewormers and nutritional and vitamin/mineral supplements were the most frequently used group of pharmaceuticals, accounting for 92.0% of all treatments performed. Antibiotics accounted for 4.8% and insecticides for 1.1% of the remaining treatments. Miscellaneous products such as anti-inflammatories, hormones and electrolytes accounted for the remaining 2.1% of treatments. The results of this study will enhance the ability of producers to make treatment decisions, allow comparisons to be made between operations and provide a base of information for future research.
SHEPHERD’S SUPPLY INVENTORY
Dr. Dee Whittier
VA-MD Regional College of Vet. Med.

Equipment
Clean towels ______
OB sleeves ______
Placenta Cup/Dipper ______
Stomach tube:
   Stallion catheter adapted to 60cc syringe ______
   Esophageal Feeder ______
Thermometer ______
Ear Tags & Tagger ______
After Birth Bucket ______
Barn Trash Can ______
Vaginal retainer ______
Warming Box/ tub – hair dryer ______
Milk Supplement Feeder w/ Nipples ______
Heat lamps ______
Scissors ______
Wound Clips (for inverted Eyelids) ______
Docking Castrating tool ______
Elastrator ______

Injectables
C & D – Tetanus ______
Oxytocin ______
BoSe ______
Vitamin B Complex ______
Vitamin A & D ______
Antibiotics:
   LA200 ______
   Penicillin ______
   Nuflor ______
Epinephrine ______
Covexin 8 ______
Tetanus Antitoxin ______

Supplies
Syringes:
   Tuberculin ______
   6 cc ______
   12 cc ______
Needles
   18 ga. ______
   20 ga - 1½“ ______
   20 ga – 1” ______

Propylene Glycol ______
Tincture of Iodine ______
Alcohol ______
Cow, Goat & Ewe Colostrum ______
Mineral Oil ______
Paper Towels ______
Dextrose ______
Calcium Gluconate ______
Pepto Bismol, Kapectate ______
Lamb Milk replacer ______
Anthelmintic – Ivomec drench ______
   Wound dressing ______
Blood stopper ______
Screw Worm spray ______
Ophthalmic Ointment ______
Electrolytes ______