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Injuries and Diseases of Beef Cattle at the Time of Calving and Breeding

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Injuries and diseases of beef cattle at calving include some common and acute conditions that generally respond rapidly to treatment with little effect on the subsequent breeding period. These conditions — injuries, prolapses and retained placenta — usually occur from a few hours before to a few days after calving.

Several other conditions may occur at parturition or soon after. Because of their chronic nature, these diseases have a decided effect on the breeding history of the affected cows. Many times, the condition is not recognized in the early stages or it may not be considered a serious threat to the animal's health. As a result, treatment may be absent or of short duration. Later on — 20 to 60 days after calving — the disease may cause periods of infertility or possibly complete sterility. These conditions are direct or secondary effects of infection and include infections of the uterus such as metritis and endometritis, pyometra or pus in the uterus with persistent yellow bodies (Corpus luteum or C.L.) and anestrus (lack of heat periods) and pneumovagina (air in vagina or windsuckers).

Following are short descriptions of these conditions, the causes if known and the common treatments if any:

Injuries and Disease Conditions of an Acute Nature

A. Bruises, lacerations and rupture of the birth canal with hemorrhage.

1. Causes

- a. Calving difficulties, rough handling of the calf and maternal tissues and careless use of obstetrical instruments by the operators during delivery of the calf.
- b. Injuries occur more easily in cows that have been in labor for several hours when the birth canal is dry and non-lubricated.

2. Treatment

- a. Give oxytocin (P.O.P.) immediately to shrink the uterus and control bleeding.
- b. Administer antibiotics or sulfa drugs locally (in the birth canal) or systemically, IM or IV (intramuscularly or intravenously).
- c. Control bleeding with coagulant materials or surgery by your veterinarian.
- d. Use systemic materials — calcium gluconate, IV; saline and 10 per cent formalin IV; and blood transfusions.

B. Prolapses — The falling out of uterus or vagina from its normal position, through the vulva, to the outside of the body (casting wethers or calf bed).

1. *This condition generally occurs in older cows. In some breeds the condition may be more prevalent in certain families, with a tendency for reoccurrence in individual animals.*

2. Causes

- a. Difficult birth with injury or irritation of external birth canal and severe straining.
- b. Retained placenta, attached to end of uterine horn.
- c. Loose uterine attachments in the abdominal cavity.
- d. Relaxed, flaccid or sloppy uterus after calving; poor uterine tone.
- e. Stabled cattle or other cattle when positioned with rear parts sloping downward.
- f. Poor body condition and malnutrition.

3. Treatment (call for professional help — FAST)

- a. Give oxytocin immediately either IV, IM or SQ.
- b. Cleanse the prolapsed structure with warm water and mild soap or disinfectant.
- c. Apply a material to pull fluid from the uterine wall; i.e., sulfaurea powder, urea powder, sugar.
- d. Replace prolapsed structure carefully.
- e. Use local and systemic treatment for infections.
- f. Suture vulva closed. Veterinarians may or may not do this, depending on the severity of the case.
- g. If the cow is weak and shaky with a rapid heart beat and pale membranes, suspect a ruptured blood vessel. Death may occur rapidly. Treatment is generally not successful.

4. After effects

- a. Often none — if the uterus and vagina are not injured during replacement.
- b. Perforations and ruptures — if sutured — may have little affect on future breeding life.
- c. If antibiotic treatment isn't used, infections may occur reducing future breeding capabilities.
- d. Severe injury, freezing, drying, etc., to uterine lining may heal quite well after uterus is replaced. However, extensive injury may result in infertility.

C. Retained placenta, retained afterbirth (R.P.'s)

1. Usually the placenta is passed in 3 to 8 hours. If retained longer than 12 hours it is "retained".
2. Causes
 - a. Lack of sucking by calf immediately after birth and a deficient oxytocin release.
 - b. Early or late births.

- c. Low levels of carotene (Vitamin A) in the dam's blood.
- d. Abortions, twins and uterine infections.

3. Treatment

- a. No treatment is necessary in most cases if the cow is eating and her body temperature is normal (100.5 to 102.5 degrees F).
- b. When metritis results (uterine infection) with fever and loss of appetite, treatment is required.
- c. Treatment includes
 - Careful removal, if possible of the R.P. by veterinarian (at least 72 hours after calving).
 - Local treatment of the uterus with antibiotics and other drugs.
 - Systemic antibiotics — intramuscularly (IM) or intravenously (IV).
 - Estrogens in recommended doses, IM, if the animal isn't extremely ill and if antibiotics are being used.

4. After effects

- a. Not serious unless metritis and pyometra (pus in uterus) occur.

Infections and Other Conditions, Generally Chronic in Nature, Which Affect Breeding Capability

A. Metritis

1. Occurs with or without retained placenta usually in 1 to 10 days after calving. The cause is usually uterine inertia or atony followed by infection caused by any one of several bacteria.
2. Clinical signs
 - a. Loss of appetite.
 - b. Fever (103 to 105 degrees F).
 - c. Decreased milk production.
 - d. Thick, cloudy vaginal discharge. When the condition is more severe, the discharge will be watery, cloudy to gray in color with a foul odor.
 - e. Severely affected animals may go down and die rapidly.
3. Treatment
 - a. Local treatment of the uterus with antibiotics.
 - b. Systemic antibiotics — either IM or IV, but preferably IV in more serious cases.

- c. Intravenously with electrolytes and dextrose.
- d. Estrogens when advised by your veterinarian.
- e. Antihistamines.
- f. Vaccination for clostridial agents including tetanus if a herd problem is prevalent.

4. *After effects*

- a. Anestrus, pyometra and endometritis.

B. Endometritis

1. *The condition*

- a. Often follows metritis or retained placenta.
- b. Often follows calving difficulties such as twin births, premature births or abortions.
- c. Often follows physical damage to the birth canal during calving problems.
- d. Sometimes occurs after natural breeding and physical damage.

2. *Diagnosis*

- a. Clinical signs are not obvious and may not be recognized externally or by rectal examination.
- b. Abnormal discharge is difficult to find or recognize. However, small flecks of pus may be in the mucus during the heat periods.
- c. Cattle with endometritis usually "cycle" normally but don't conceive for several heat periods.

3. *Treatment*

- a. Antibiotics, locally in the uterus, and stimulating but weak solutions — Lugols iodine, Lysol, "tamed iodine", acriflavin dyes.
- b. Estrogens in the uterus or intramuscularly in recommended doses with antibiotics.

C. Delayed uterine involution

1. *Commonly seen in older, high-producing dairy cows.*

2. *The condition*

- a. Often associated with difficult births, twins, abortions, cesarean section or any abnormal birth.
- b. May occur after metritis or other genital tract infections.
- c. Often associated with endometritis.

3. *Clinical signs are anestrus or repeat breedings.*

4. *Treatment is the same as for endometritis. However, if the infertility is not associated with infection this treatment will be of little value.*

D. Pneumovagina (air in the vagina, windsuckers)

1. *Found in older cows when the cervix and uterus extend forward over the pelvic brim. The vulva is then pulled forward into the pelvis. The condition is also seen after tears or lacerations of the vulva during calving.*

2. *Clinical signs*

- a. Air sucked into vagina after urination, defecation or getting-up.
- b. A reddened, sometimes ulcerated vaginal wall with a thick-grayish discharge.
- c. Urine retained in the vagina with fecal and other contaminating material.
- d. A collection on the vaginal floor of the contaminating material which is voided when the cow arches her back to urinate or defecate.
- e. Poor conception is the end result.

3. *Treatment*

- a. Correct the tears and lacerations by surgery, treat the uterus with antibiotics and breed back after 2 heat periods.

E. Pyometra (pus in the uterus)

1. *Large amount of pus accumulates in the uterus and is associated with a retained yellow body (C.L.)*

2. *Causes*

- a. Abnormal calvings.
- b. Uterine infections or retained placentas.
- c. Incomplete uterine involution.
- d. Occasionally pyometra follows conception, fetal death and fetal maceration.
- e. Insertion of a breeding pipette and contaminating bacteria into the pregnant uterus through the mucus plug.

3. *Clinical signs*

- a. Failure of estrum or heat.
- b. Large amounts of pus in the uterus usually 45 to 90 days after calving. This material can be detected by a rectal examination.
- c. Pus that escapes periodically and is noted on the tail and around the vulva.

4. *Treatment*

- a. Have your veterinarian get rid of the C.L. by removal with drugs or manually if the injection doesn't work.
- b. Douche the uterus along with manual massage.

5. *The animal's breeding life may be ended if diagnosis and treatment aren't prompt.*

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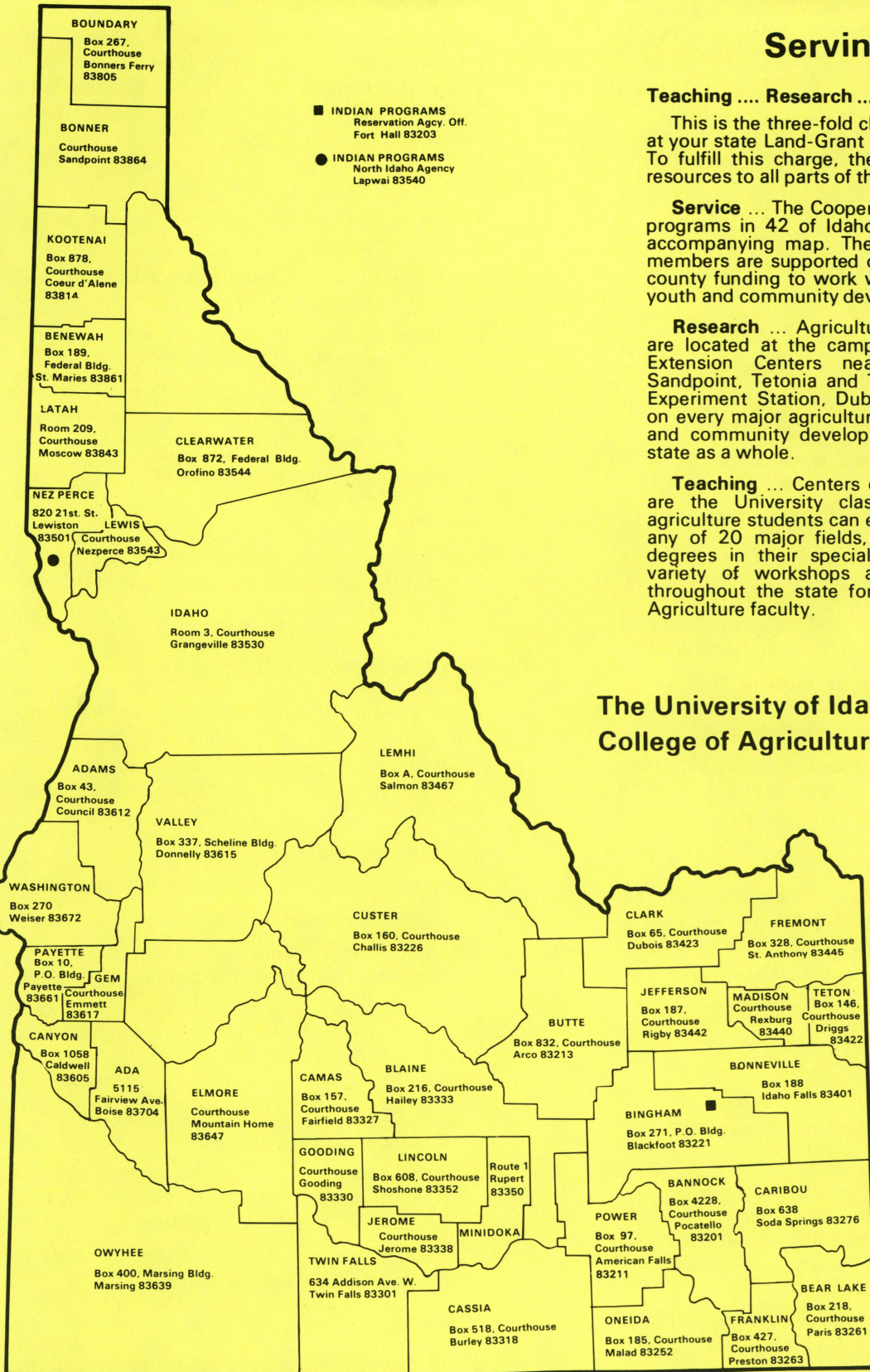
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