

Small Ruminant: pregnancy care and dystocia

Melissa Housley, DVM

423-744-4291

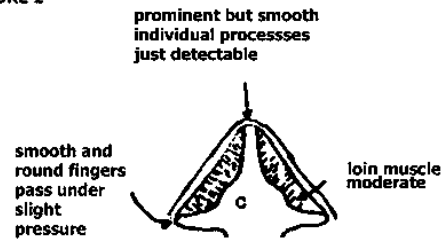
mhousleydvm@gmail.com

Gestation lengths and maintenance

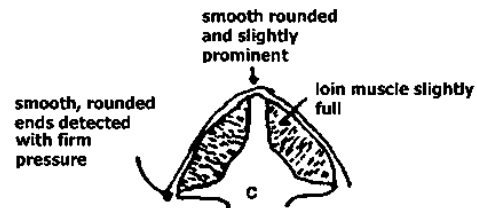
- Sheep: 145-150 days – Placenta begins producing progesterone around 75d.
- Goats: 147-155 days – Depend entirely on CL to produce progesterone and maintain pregnancy
- Short day breeders, begin to cycle as early as late July and can cycle until February if not bred.

Body Condition Score

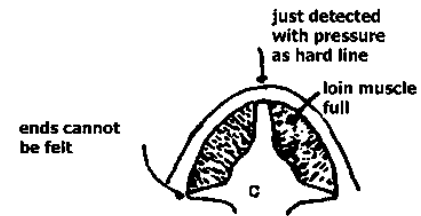
SCORE 2



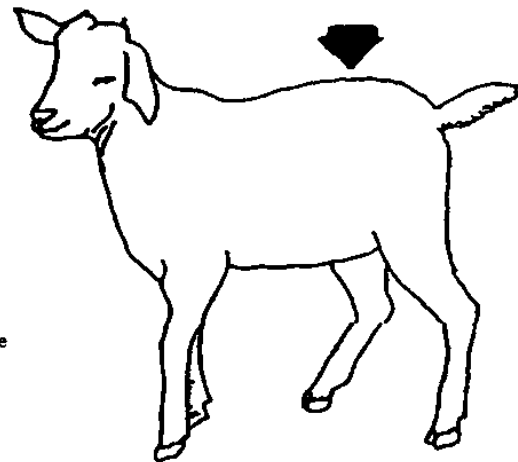
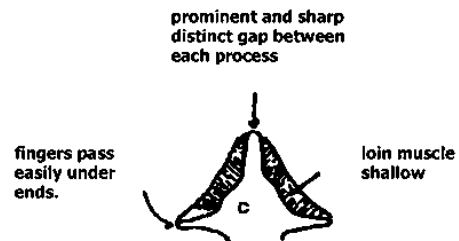
SCORE 3



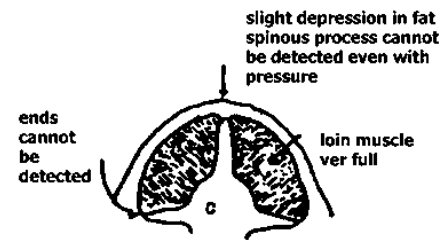
SCORE 4



SCORE 1



SCORE 5



- We want our animals to be a BCS of 3 at the beginning of breeding season and also to be able to maintain a BCS of 3.
- In late pregnancy, their body condition score should be assessed weekly.

Flush or not?

- Flushing: the practice of feeding higher density, or higher quality feedstuff in the few weeks prior to the beginning of breeding season.
- So should you do it? Well this depends on what the BCS of your animal in the first place. If they are already a BCS of 3 or 4, then flushing is not going to give you more offspring, just cost you more. Also it could hinder your operation by putting your animals at a too high of BCS. (We will talk more later)

What should I be feeding during pregnancy?

- Dry matter intake is 2.5%-2.75% of body weight.
*90 lb doe needs 2.25lbs of dry matter. ($90 \times 0.025 = 2.25$)
- Protein requirements increase with gestation length.
90 lb doe in early pregnancy needs 2.25 lb dry matter with 0.14 lb protein;
90lb doe in late pregnancy needs 2.25 lb dry matter with 0.248 lb protein.
- You roughly double the protein requirement from early to late pregnancy
- Provide free access to hay, water, and a balanced salt/mineral mix

Early-vs-Late Gestation Diet

- Early gestation nutrition is low maintenance. As long as hay or adequate pasture is available no additional nutrition is needed.
- 70% of fetal growth happens in the last 6 weeks of gestation. Dry matter intake requirements increase with body mass and protein requirements increase. Most does and ewes cannot maintain this on hay/pasture alone. Depending on the size of the animal, 1-2.5 lbs of grain may be added to maintain positive energy balance.

Pregnancy Toxemia

- A negative energy state of the female due to inability to consume adequate energy/protein. Can be due to fetal number, fetal size, poor feed, poor BCS or too fat.
- All make sense except for if your female is a fatly conditioned animal: so lets talk about it.
 - The liver maintains molecules that are used to provide energy when the female cannot consume enough food . The female's liver is full of these molecules when they are over conditioned, and when they become quickly activated they are processed into ketones or negative energy balance.

Prevention of Pregnancy Toxemia

- Maintain your females at a BCS of 2.5-3.5 throughout pregnancy.
- Do not select for females that continue to produce triplets.
- Provide additional energy in the form of grain/concentrates during the last 4 weeks of gestation.
- Monitor for signs of P.T.: anorexia, depression, constipation, grinding of teeth, recumbency, blindness, circling, convulsions, low body temp. If these signs are present, call the vet. Your female needs immediate care.

Hypocalcemia: Milk Fever

- Last 2 weeks of gestation- 4 weeks post-partum.
- State where lactation or pregnancy is consuming more calcium than the female can ingest or activate from her bones.
- Takes 1-2 days for the parathyroid hormones to mobilize the calcium stores in the body. If parathyroid hormones levels are low, the body is not utilizing the stored calcium which it needs and will go into hypocalcemic state.
- My suggestion is to **NEVER** supplement with additional calcium in the last month of gestation, but begin to do so as soon as birth happens.

Part 2

- Dystocia

Reasons for Dystocia

- Fetal Malposition
- Incomplete dilation of cervix (Ringwomb)
 - More than one baby in birth canal
 - Cervix +/- Vaginal prolapse
 - Uterine Inertia
 - Fetal/Maternal size mismatch

Stages of Parturition

1. The ewe/doe may leave the flock, be restless, urinate more frequently. 2-12 hours
2. Delivery: actual delivery of fetus- should be done quickly. 1-2 hours
3. Placental Delivery: baby(s) is out and the afterbirth should be produced. <6 hours; usually ok if <18 hours unless female is sick

Presentation of Fetus

- The amnion (sac) is the first thing you should see during parturition.
- 2 legs next (front-vs-back feet)
- Nose/Head
- We want the baby's backbone to be touching the mothers back
- Caudal presentation: you have back feet coming out first (this is ok)
- Breech: you have a rear end presenting with hind limbs tucked under the baby's belly- need a vet here!

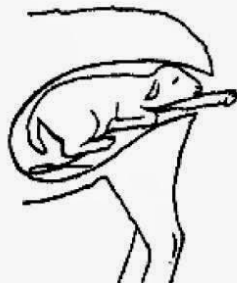
Normal presentation



Breech presentation



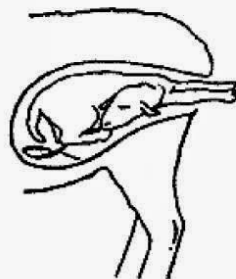
One leg back



Hind legs only



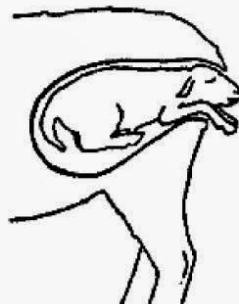
Head back



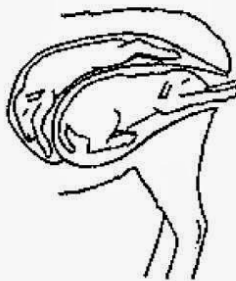
Both forelegs back



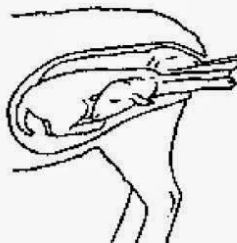
Elbow lock



Twins - front and back



Four legs - one head



Ringwomb

- #1: Heritable; cull the offender
- Definition: failure of cervix to fully dilate
- Manual dilation can be tried
- Oxytocin 2nd
- Caesarian Section

Caesarian Section

- May be needed if fetal value is greater than mother value.
- May be only option with pregnancy toxemia; ringwomb, fetal/maternal size mismatch.
- Usually only requires sedation and restraint
- About 1 hour time
- Antibiotics and NSAIDS are a must

When to call the vet

- Female has strained for longer than 30 minutes with nothing exiting the vulva.
- Female is anorexic, lethargic, neurologic and heavily pregnant.
- A malodorous (bad smell) discharge is present before or after birth.
- Female is recumbent, non responsive and has already given birth.

Precautionary Practices

- Have a veterinarian ultrasound your herd to determine who is carrying multiple feti. Separate the herd according to this value and feed appropriately.
- Do not cause extra stress during the last month of gestation (hauling, feet trims, vaccinations, etc).
- Do not give steroids (dexamethasone, prednisone, phenylbutazone, etc) to goats during any stage of pregnancy; be careful with sheep.
- Keep all females at a BCS of 2.5-3 at all times.
- Maintain a closed herd, especially during breeding/lambing/kidding season.

Emergency Kit

- Gloves
- Thermometer
- Blankets
- CMPK gel
- Vet wrap
- Iodine
- Gauze/clean rags
- Clippers/Shears
- Vet's phone number
- Obstetrical Lubricant
- Clean shelter/bedding
- Flashlight/Headlamp
- Frozen colostrum*
 - Karo Syrup

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