CALVING SEASON HEALTH MANAGEMENT

LAUREN CHRISTENSEN, DVM, MS, DACVPM

ASSISTANT PROFESSOR, MIXED PRACTICE PRODUCTION MEDICINE
UNIVERSITY OF IDAHO ANIMAL, VETERINARY, AND FOOD SCIENCES DEPARTMENT
FEBRUARY 2025

CALVING DIFFICULTY = DYSTOCIA

Heifers

- ‘Fetal-maternal mismatch’
- Calf is too large or pelvis is too small

Cows

- Malpresentation

EARLY INTERVENTION = BETTER OUTCOME

- Poor conception rates and **longer breed back** interval in heifers with prolonged Stage 2 labor
- Increased **risk of calf mortality**
- Live **calves are stressed** during dystocia
  - Weak
  - Depressed, slow to stand
  - Difficulty nursing and decreased colostrum intake
  - Difficulty staying warm

3 STAGES OF PARTURITION

‘Normal’ timeframes

<u>Stage 1: Cervix dilating, calf moving into position</u>
- 4 hours

<u>Stage 2: Active labor</u>
- Heifers: 1 hour
- Cows: 30-40 min

<u>Stage 3: Pass placenta</u>
- Usually within 4 hours after calf is delivered
- Considered retained after 12-24 hours

WHEN TO INTERVENE

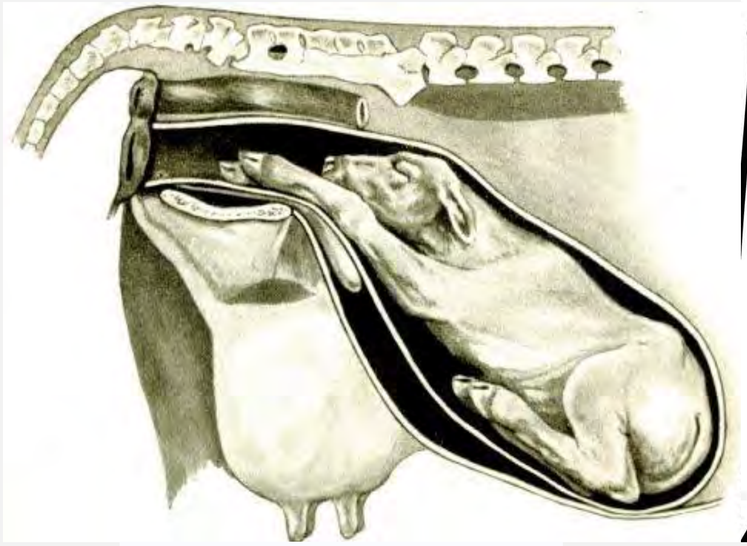
<u>Stage 1: Cervix dilating, calf moving into position</u>

Check if taking >4 hours

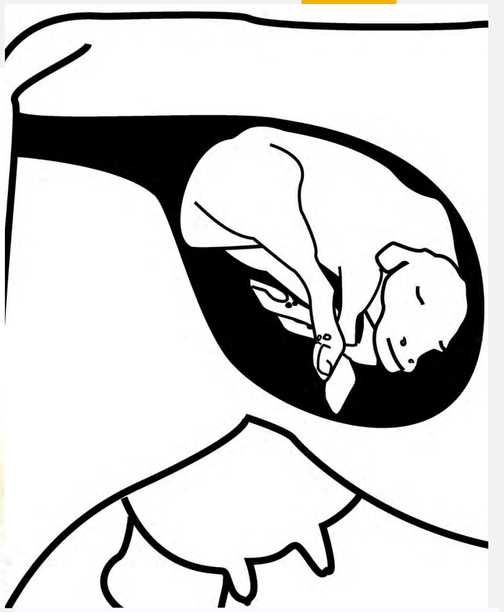
Cow with tail raised, off by herself, +/- water bag out

<u>Breech (calf is butt first)= cervix fails to fully dilate, labor fails to progress</u>

Can feel the calf's tail but not feet



Normal position



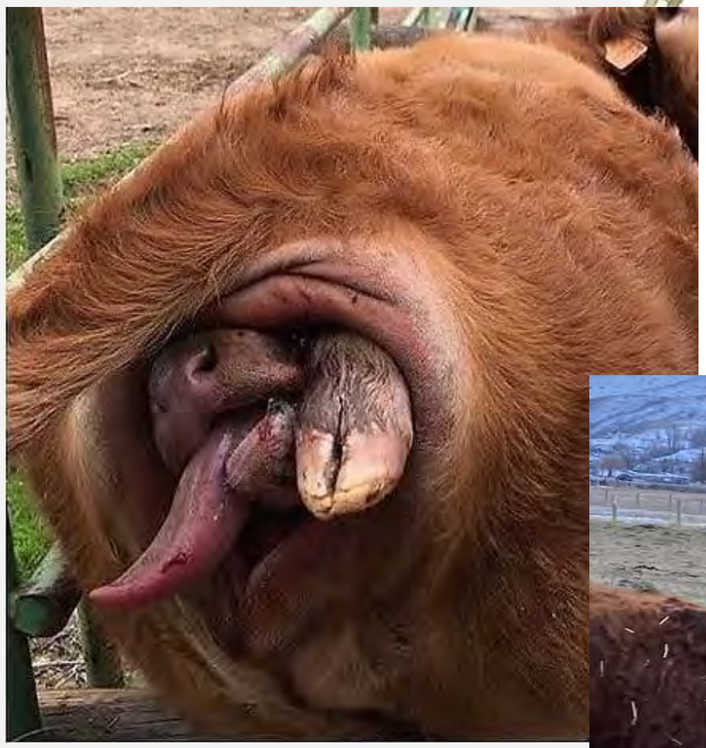
Breech (butt first)

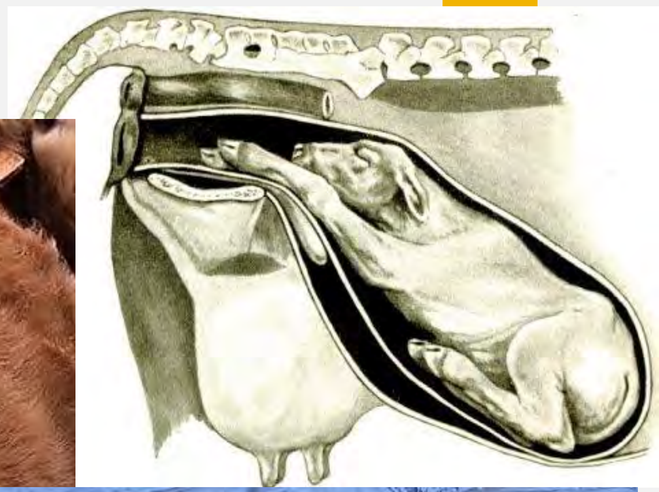
WHEN TO INTERVENE

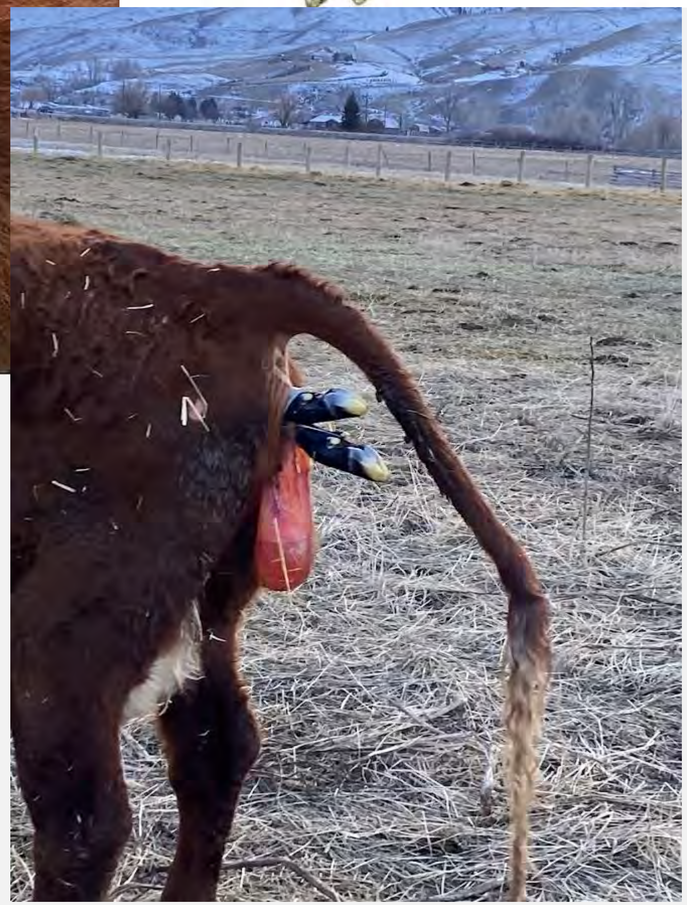
<u>Stage 2: Active labor, pushing</u>

- Heifers: >1 hour
- Cows: >30-40 min

- Only one foot; head but no feet; or feet but no nose visible
- Feet are upside down (can see dewclaws- backwards calf)
- Two front feet and nose/head visible, but no progress after 15-20 min of pushing







WHEN TO INTERVENE

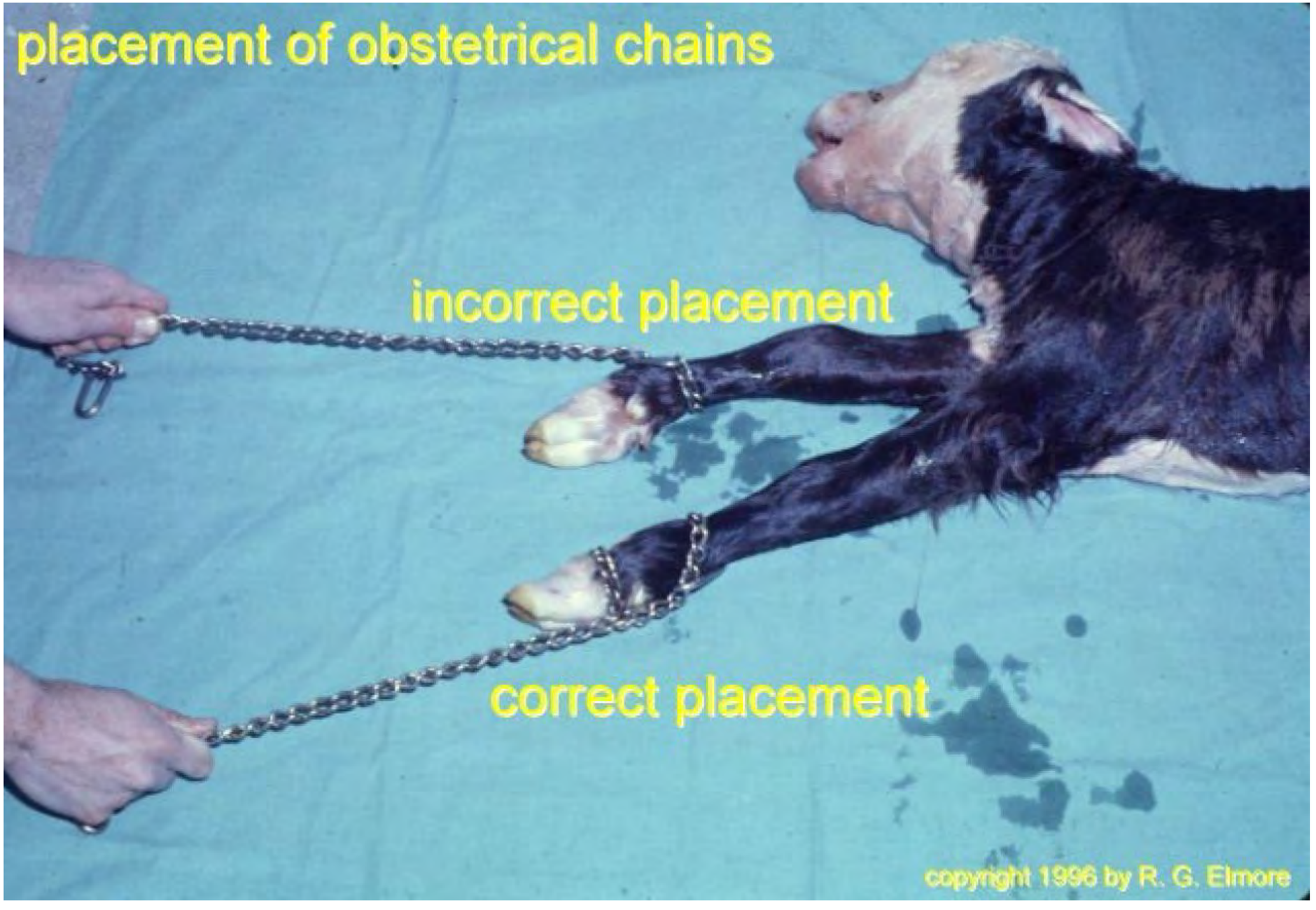
Stage 1.5: Something's not right

WHEN TO INTERVENE

Stage 3: Pass placenta

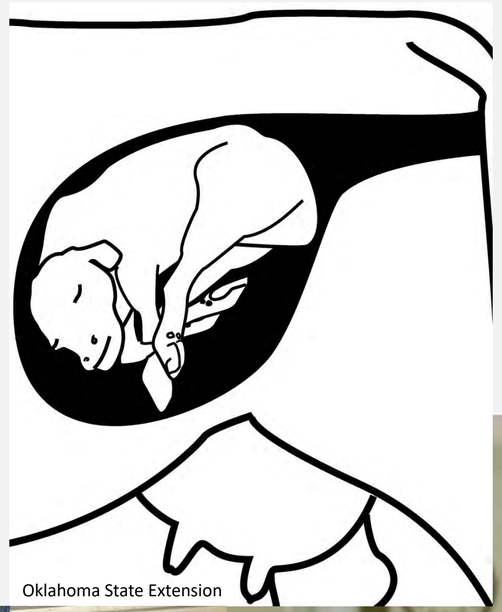
- Normally passed in 1-4 hrs, sometimes as long as 12 hrs
- Placenta considered retained when still hanging after 12-24 hrs postpartum

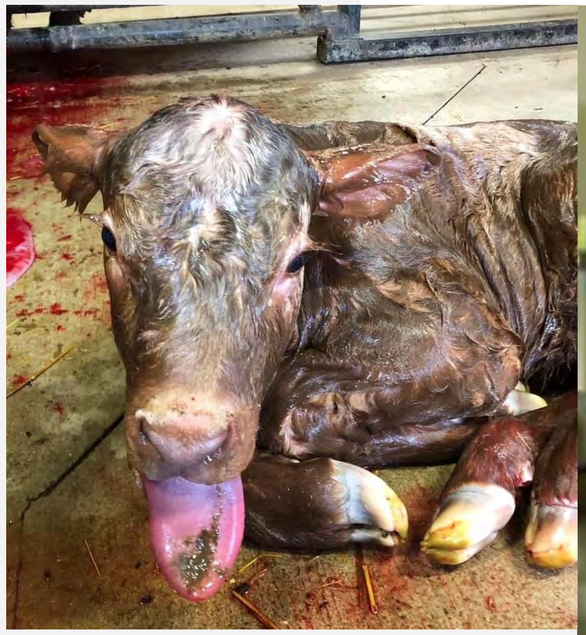
- Gentle traction; tie in a knot below vulva
- Monitor cow for signs of illness


placement of obstetrical chains
incorrect placement
correct placement
copyright 1996 by R. G. Elmore

WHEN TO CALL THE VET

- You are uncomfortable or unfamiliar with pulling a calf
- You are not making progress in 20 minutes
- Calf and uterus feel dry or sticky
- Breech
- Calf is too big or is deformed
- Uterine prolapse
- Retained placenta >24 hrs
- Calf’s head/tongue are swollen





WHEN TO CALL THE VET

<u>Uterine prolapse:</u> happens immediately after calving

Emergency

Keep cow calm and confined

Protect with trash bag

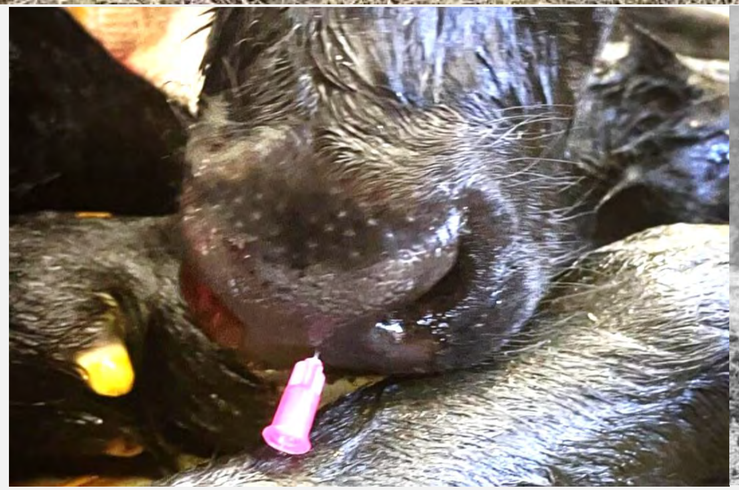
<u>Vaginal prolapse:</u> cow has not calved

Call the vet if it doesn't go back in on its own after the cow stands up

THE CALF IS OUT, NOW WHAT?

- Put calf on clean surface (straw, feed sacks, wheelbarrow)
- ‘Recovery’ position: sitting on chest, hind legs pulled forward
  - **Lungs inflate better**

- Cold water in ear, tickle straw in nose to stimulate breathing
- Rub chest vigorously to stimulate breathing and dry calf
- GV26- acupuncture point
  - 20g needle in nasal philtrum to bone, leave for 5 min




copyright 1996 by R.G. Elmore
WRONG!!
clearing airway of newborn calf

THE CALF IS OUT, NOW WHAT?

- Check for abnormalities
- Dystocia stresses calves- tube with colostrum

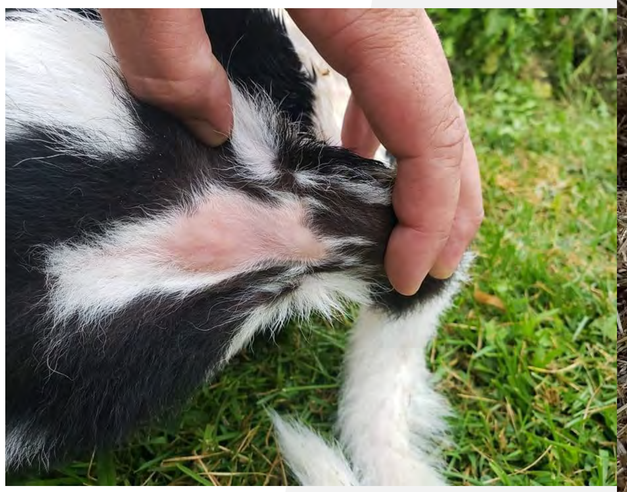


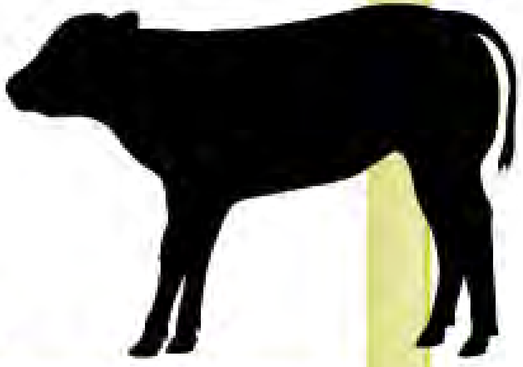
TABLE 1: Post-Delivery Analysis

The newborn calf should be able to do the following within the given time limit:

- 3 min – Lifting its head
- 5 min – Sitting up
- 20 min – Attempting to stand
- 60 min – Standing
- 2 hours – Suckling

Normal vitals:

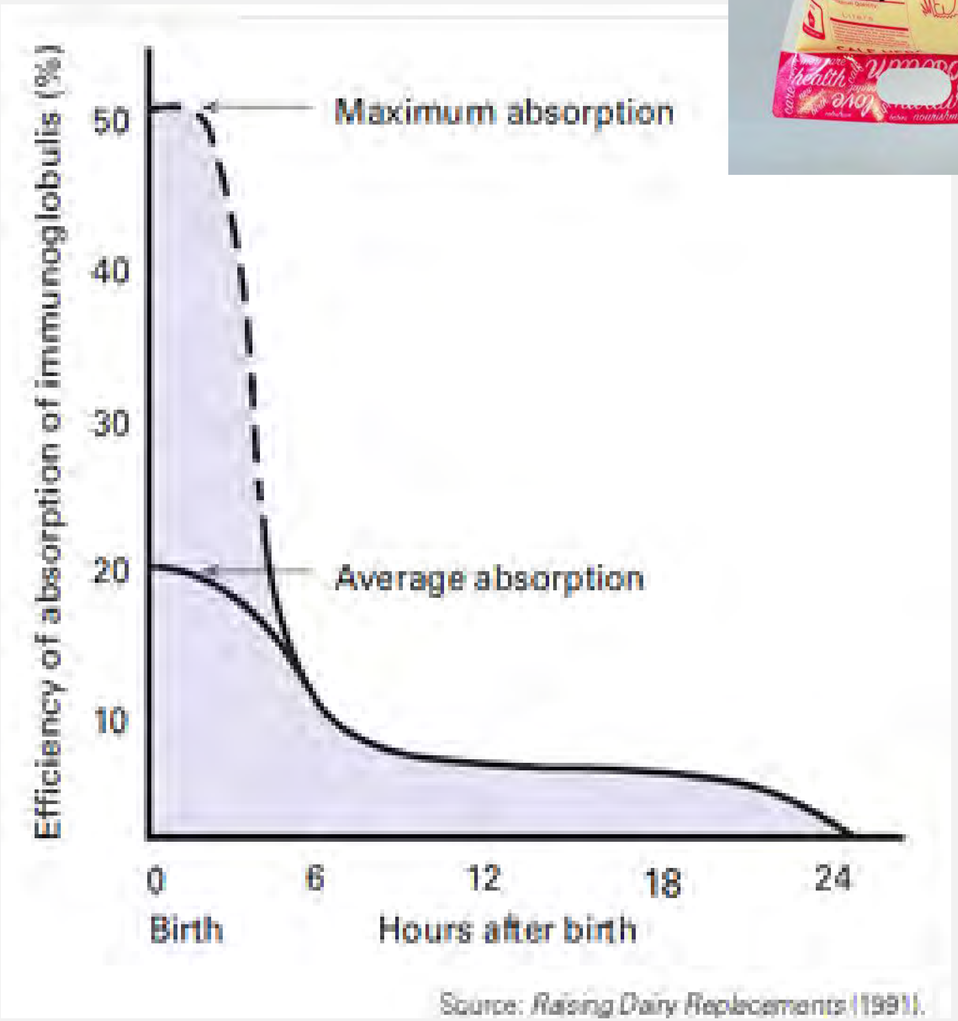
- Temperature: 100-102°F
- Heart Rate: 90 to 160 bpm
- Respiratory Rate: 50 to 75 bpm



BovineVetOnline.com

WHAT IS COLOSTRUM?

- Calves are born without protective antibodies to fight disease
- Colostrum is the first milk made by the cow (thick, yellow)
  - Protective immunoglobulin IgG
  - Essential nutrients (fat, protein, vitamins)
- Calves are only able to absorb colostrum in the first 24 hrs of life!



COLOSTRUM FEEDING

- Calves should nurse from cow or be fed colostrum within 2-3 hours of birth
- Mix colostrum powder with 110*F water then cool

- Colostrum replacer: 100g IgG
  - Calves that did not get colostrum from cow
- Colostrum supplement: 50g IgG
  - Calves that got some colostrum, but got cold
  - Cows that may have poor quality colostrum
  - Not enough colostrum- twins

MADIGAN SQUEEZE FOR ‘DUMMY’ CALVES

- Healthy but born weak, uncoordinated, lethargic, little to no suckle reflex
  - (Dystocia, late gestation nutritional/vitamin deficiencies, in utero infections)
- Pressure on chest with rope mimics pressure of birth canal, ‘reset’ button
- Thick rope
- Loop across chest behind one leg, then two half hitches on ribs- even pressure
- 20 min; Can repeat 2-3 x day

WARMING COLD CALVES

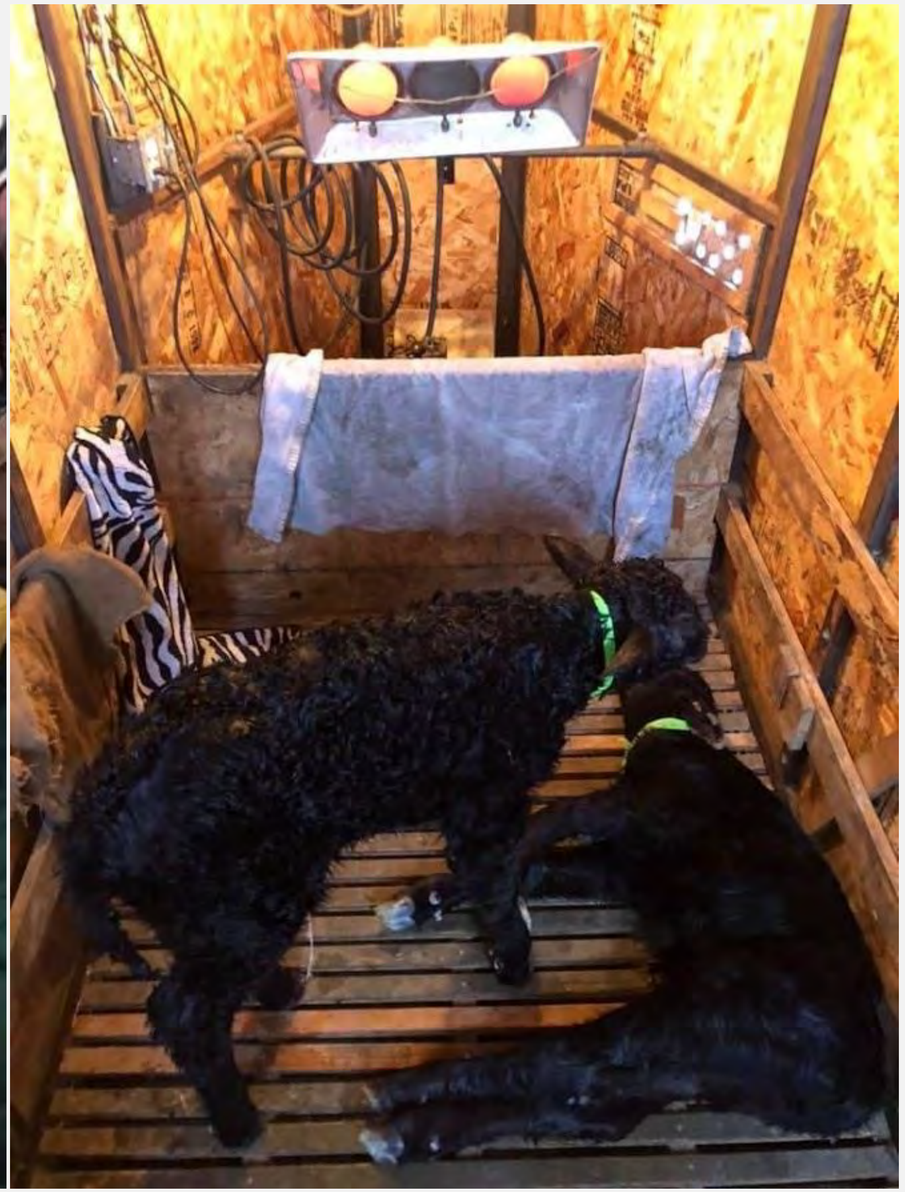
- Check calves every few hours in winter weather
- Normal temp 100-102*F
- Thermometer at ‘Lo’ means <90*F
- Check cold or ‘off’ looking calves with a thermometer- provide heat if below normal
- Dry calf if wet

CALF WARMING BOXES

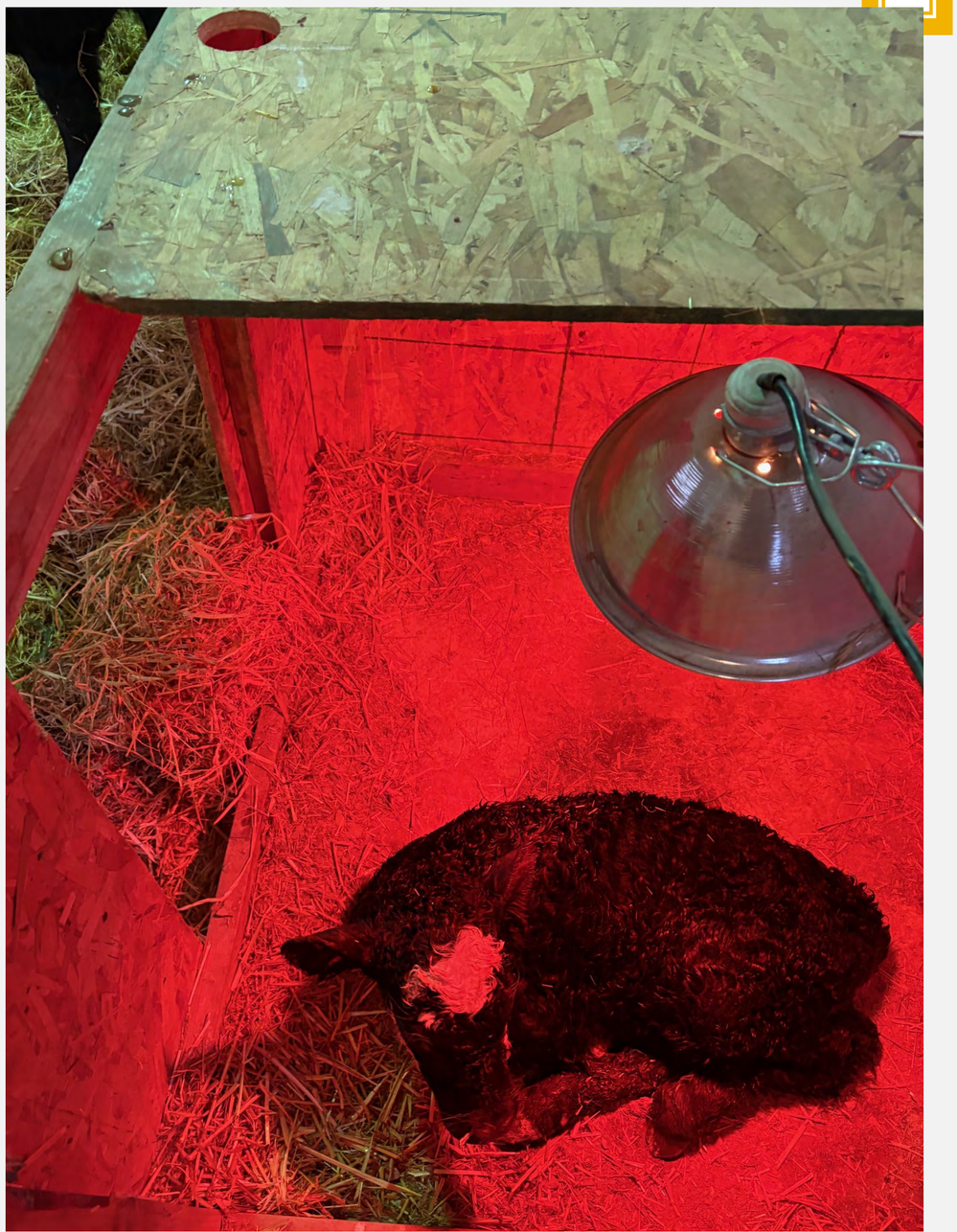
Ideal calf warming box:

- Grate floor so calf stays dry
- Keep preheated at 90*F
- Set a timer and check every 30 min! Don’t overcook the calf

- Separate warming boxes for cold vs sick calves



CALF WARMING BOXES



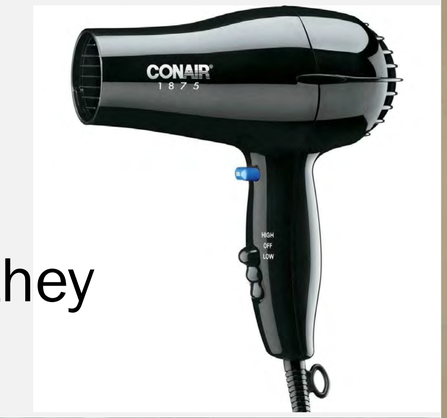
CALF WARMING BOXES

WARMING COLD CALVES

- Thermometer reading ‘Lo’ means below 90*F
- Need energy to shiver
  - Oral karo syrup on gums or tube with 100cc of warm 50% Dextrose
  - Once more responsive (calf ~97+ degrees, some suckle) tube with warm milk or milk replacer
  - Milk should be 101-102*F
- Prop upright if flat on side

WARMING COLD CALVES

- Put calf in trash bag (head out) before putting in warm water to keep dry
- Wrap in space blanket once dry
- Calf or dog coat?
- Recheck temp in 1 hr to ensure they are maintaining heat



CALF PROCESSING

- Dip navel within 1-2 hrs of birth and again at 24 hrs of age
- 7% Iodine or 2% chlorhexidine
- May need Rx from vet for iodine- state regulated
- Coat cord and skin
- ‘Navel Guard’ products may be less effective- alcohol based
- Clean dip cups regularly!

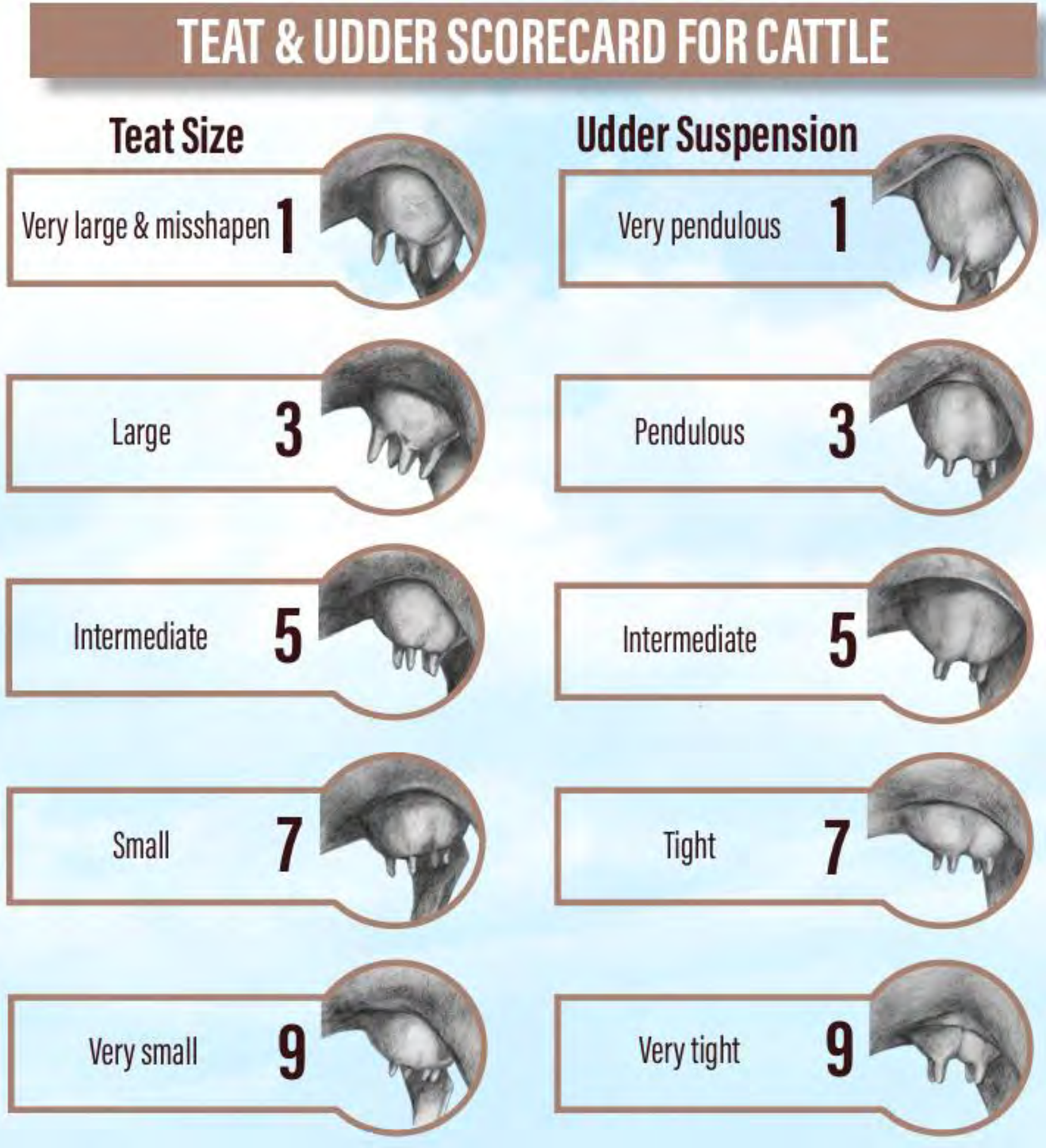
CALF PROCESSING

- Record birth weight, sex, dam, etc.
- Ear tag
  - Left ear for heifers (leave room for Bang's tattoo in Right)
- Castrate at birth if not selling bulls
  - Check at branding

CALF PROCESSING

- Cow’s udder and teat score
- Dam’s disposition, calving ease
- Calf vigor

Calf Vigor	
1	Nursed immediately, healthy/strong at birth
2	Nursed on its own, but took some time
3	Required assistance to suckle
4	Died shortly after birth
5	Dead on arrival



SCOURS QUICK FACTS

Scours = Thin watery diarrhea

- Dehydration is what kills calves
  - Correcting fluid loss is #1 critical part of treatment

- Calves need to continue consuming milk to have calories to fight disease

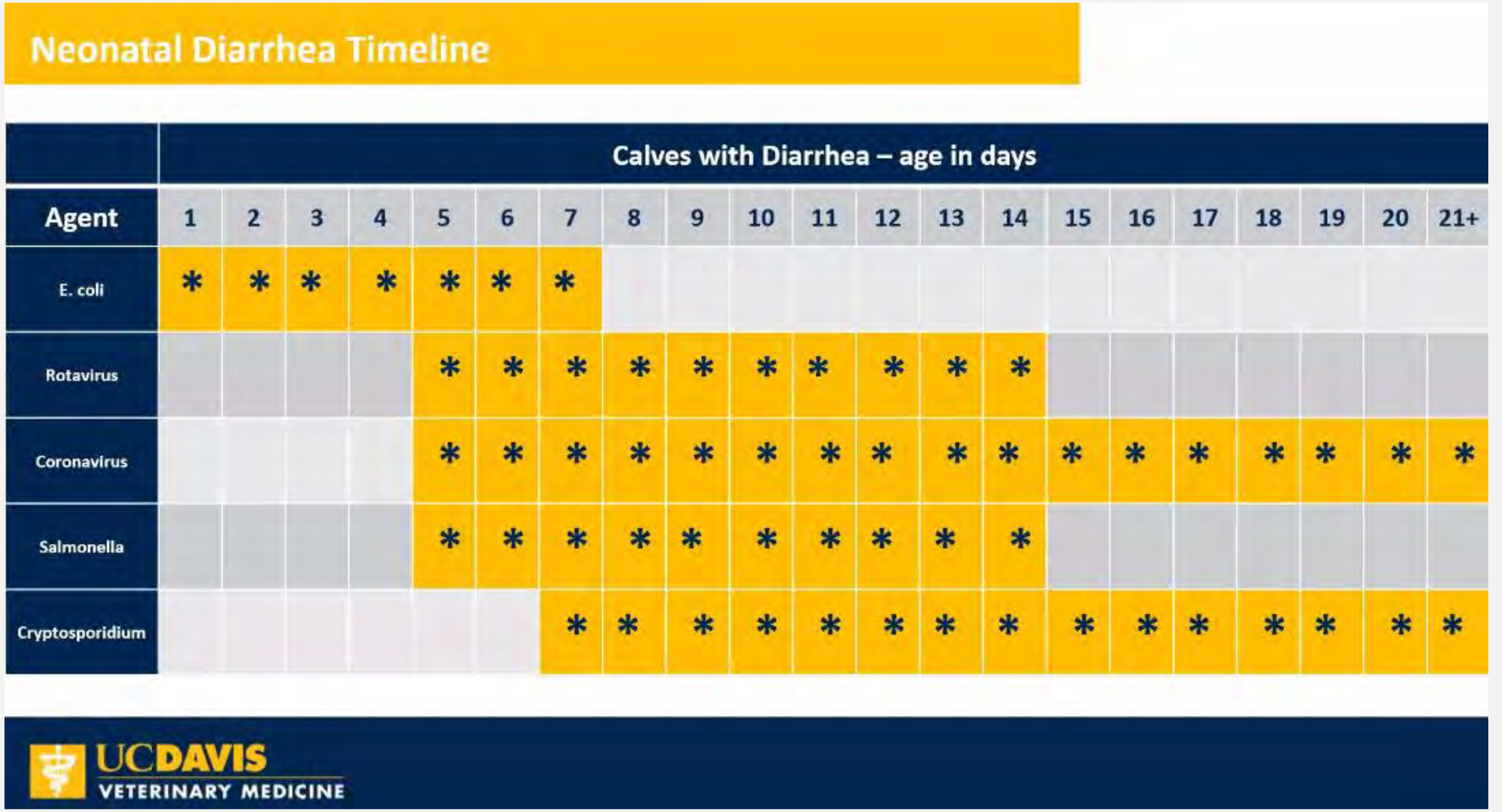
- Scours prevention includes good hygiene, cow health, and colostrum management

SCOURS

Infectious causes: virus, protozoa parasite, or bacteria

- **Bovine rotavirus, bovine coronavirus**
- ***Cryptosporidium***
- *E. coli, Salmonella*
- *Coccidia* (>21 days)
- Can have multiple

You can get scours!



95% of infectious scours is bovine rotavirus or coronavirus, or *Crypto*

SCOURS

- Improperly mixed milk replacer and/or electrolyte can cause diarrhea- check mixing instructions
- Milk replacer needs to be fed at cow body temp: 101-102*F

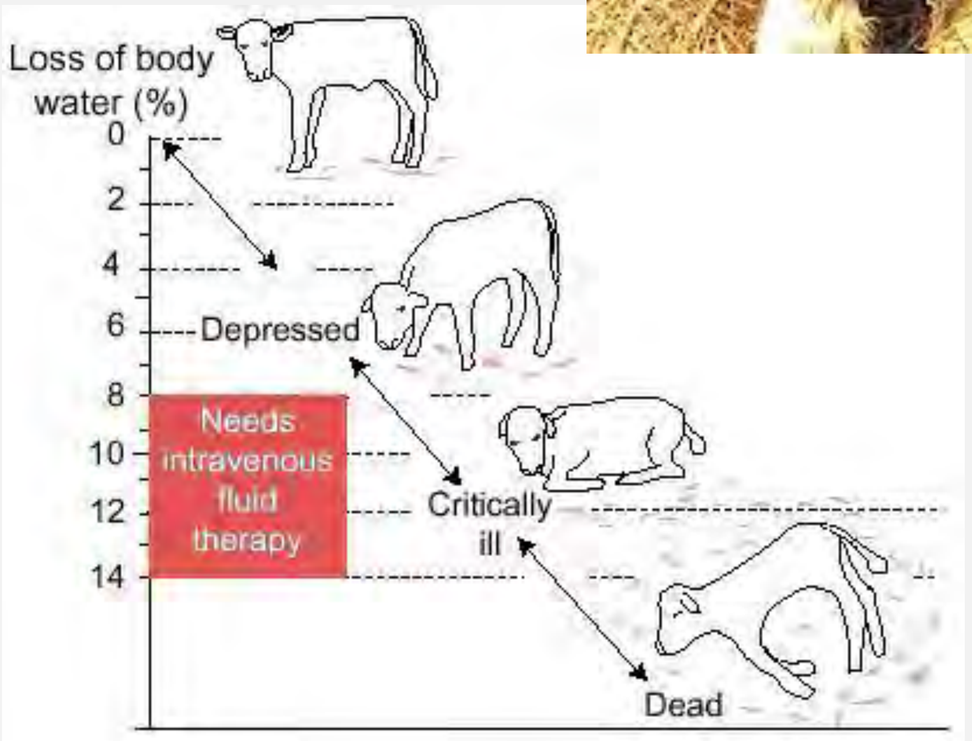
- Scours- thin, watery liquid, +/- blood
- Feces watery, falls through straw or bedding = bad

SCOURS

- Diarrhea→ **Dehydration**
- Often low blood sugar
- Often hypothermic and have metabolic issues (acidotic blood pH)

- Treatment: **<u>aggressive, early supportive care for dehydration</u>**
- **<u>Continued supportive care until recovered (several days)</u>**

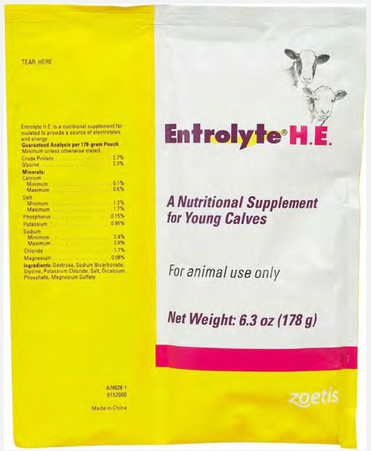
- Antibiotics if bloody diarrhea, fever >103.5F (sepsis)



SCOURS TREATMENT

Oral Electrolytes

- Depressed but standing
- Suckle reflex
- Follow mixing/feeding instructions
- Alternate electrolytes with milk- need calories



IV Fluids

- Can’t stand
- No/minimal suckle reflex
- Getting worse or not seeing improvement within 12hrs of oral treatment
- Hypothermic
- Not eating for 24 hrs (milk replacer or nursing cow)

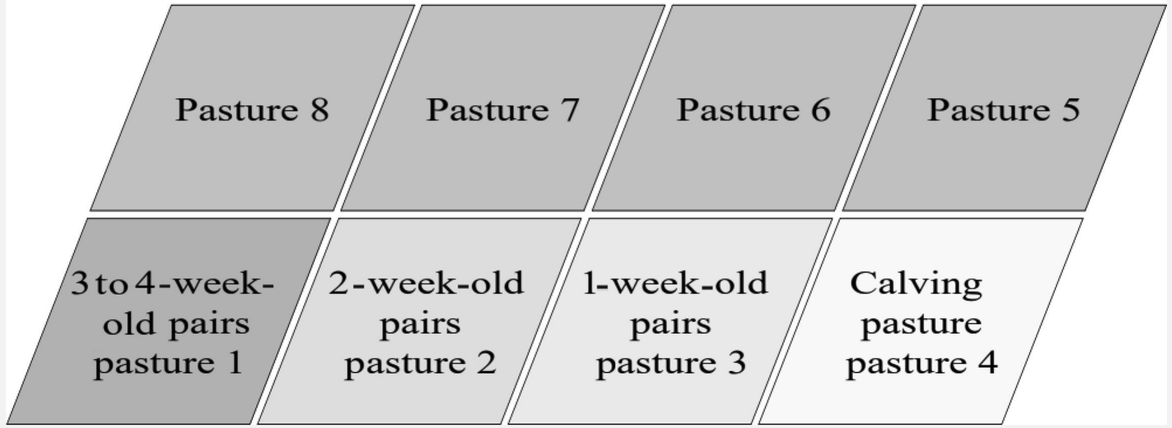
The University of Idaho has no affiliation with and does not endorse products from specific companies

SCOURS PREVENTION = GOOD HYGIENE

Sandhills Calving Method- separate calves by age

- Prevent older calves from transmitting disease to baby calves
- Move pregnant cows to next clean pasture (7-10 days)
- Baby calves and mamas stay in their own pasture with their own germs
- Feed hay in new spot each day
- Ensure calves get colostrum and stay warm

Consider vaccinating cows 2-3 months before calving with scour vaccine



QUESTIONS?


Preventing Diseases in Calves
Ensure calves get adequate **colostrum**
Provide enough **space**
Keep **calving areas clean, dry and protected** from the elements
Keep calves that are the **same age together**
Aim for a **short calving season**
BEEFRESEARCH.CA