

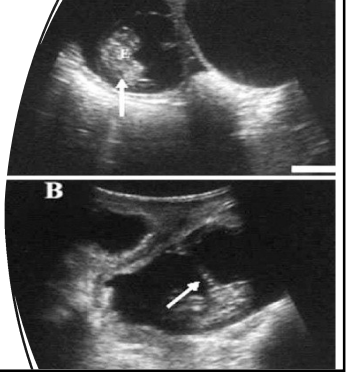
Bovine Dystocia and Neonatal Care

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1

Pregnancy determination

- Important to separate pregnant and non-pregnant females
- Methods
 - Ultrasound (easiest) – can be done as early as 30 days
 - Can identify # of fetus (45-90d)
 - Can diagnose other issues
 - Ballotments – late pregnancy
 - Hormone tests (urine/blood/milk)
 - Many false positive and false negatives

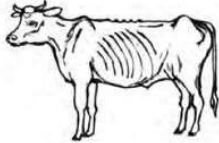


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Recommendations for gestational care

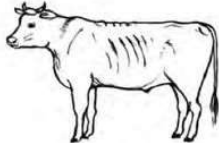
- Nutrition!
- Pregnant females must be fed to maintain proper body condition
 - Ideal = 2.5 to 3.0
- Free access to mineral (selenium)
- Stress?
- Clean dry environment – reduces infection risk
 - New pasture
 - Clean maternity pens

3



Condition score 1

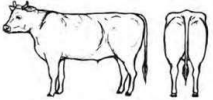
Backbone prominent
Hips and shoulder bones prominent
Ribs clearly visible
Tail-head area recessed
Skeletal body outline



Condition score 2

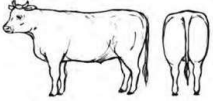
Backbone visible
Hips and shoulder bones visible
Ribs visible faintly
Tail-head area slightly recessed
Body outline bony

4



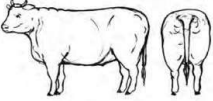
Condition score 3

Hip bones visible faintly
Ribs generally not visible
Tail-head area not recessed
Body outline almost smooth



Condition score 4

Hip bones not visible
Ribs well covered
Tail-head area slightly lumpy
Body outline rounded



Condition score 5

Hip bones showing fat deposit
Ribs very well covered
Tail-head area very lumpy
Body outline bulging due to fat

5

Disease in Pregnant Cows

- Vaginal Prolapse
- Abortion

6



Vaginal Prolapse

- Common in overweight cows
- Genetic

7

Vaginal Prolapse


- Treatment will depend on severity
- If minor – may be able to monitor
- If major – need vet visit to replace and retain
 - Buhner stitch
 - Needs to be removed prior to calving
- Can calve with vaginal prolapse



8

Abortion

- Delivery of dead calves before full term
- Causes:
 - Infectious disease (BVD)
 - Genetic issues (fetal malformations)
 - Twins
- Herd outbreak
 - Ideally keep a fresh fetus and placenta
 - Do not freeze!




9

Parturition – the birth process

- Stage I = preparation for parturition
- Stage II = expulsion of fetus
- Stage III = Passing the placenta

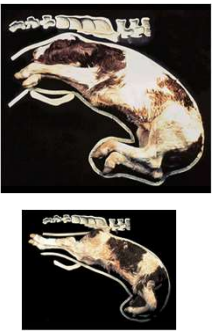
	Time
Stage I	2 to 24 hours (2-6 most common)
Stage II	1 hour (shorter in cows)
Stage III	8 to 12 hours



10

Normal birth position

- Feet first
- Then nose and head
- Extended




11

Dystocia – difficult birth

- Most common cause = malpresentation
- **PROPER RESTRAINT!**
 - Reduces injury to personnel
 - Reduces injury to cow
 - Speeds up work time

Just 'cause she's friendly does not mean she will appreciate my hand up her hoohaw.

You're putting what? Where?



12

Dystocia – difficult birth

- Check cow for malpresented fetus if stage 2 labor is taking too long
- Wear gloves
- Use mild soap (dawn dish soap) and warm water to clean vulvar area
- Use obstetrical lubricant
- Gently palpate fetus in vaginal canal to determine positioning

13

If Normal Position

- You have palpated 2 front legs and 1 head (or 2 back legs)
- **THEY ARE ATTACHED TO THE SAME CALF**
- Put chains on and pull



14

How to tell if legs are front vs back

- Palpate leg joints
- If both joints bend in **SAME** direction = Front leg
- If both joints bend in **OPPOSITE** direction = Back leg
- Same calf?



15

OB chains

- Helps hold onto fetus while positioning
- Make sure use double loops as shown to reduce possibility of leg fractures



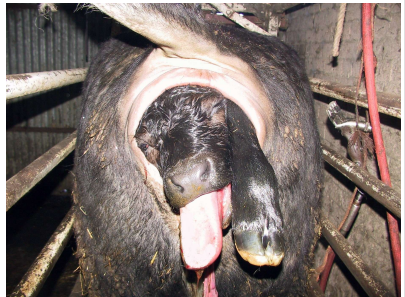
16

Abnormal Presentations

17

Repositioning the fetus

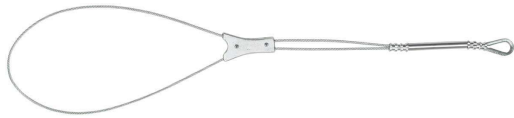
- Can gently repulse (push back) the fetus into the uterus and pull up legs/head as needed
- Apply OB chains to legs you have **BEFORE** repulsing
- **Use lots of lube**
- Once head diving position is achieved, can pull
- **WEAR GLOVES!**



18

Head snare

- Useful to help guide the head out



19

Calf jack or calf puller



20

Calving toolkit

Warm Water

Obstetrical
Lube

Breeding
sleeves/gloves

OB chains and
handles

Head snare

21

When to call a vet

- If Fetal manipulation unsuccessful – call the vet
 - Give up sooner than later! If 15 minutes and no progress, you need help!
 - Best chance for good outcome if you call early
 - Many things vet can do to make dystocia easier (ie: epidural)

22

The DON'TS

- DO NOT attempt to pull the calf with a motor vehicle
- DO NOT use a Come-along to pull calf
- DO NOT fail to restrain your cow appropriately
 - Even if she is down

23



24

Table 2 Signs of a calf's healthy start


A healthy, normal beef calf should:
1. Start breathing within 30 seconds
2. Lift up its head within 2 minutes
3. Place itself in a sternal position within 2-3 minutes
4. Try to stand within 20 minutes
5. Be able to stand within 60 minutes
6. Have good muscle tone
7. Respond to pinching between the hooves by pulling the foot away, or to placing a (clean) finger into the mouth by starting to suckle (normal reflexes)

<https://www.progressivecattle.com/topics/herd-health/field-resuscitation-of-the-newborn-beef-calf>

25

Calf Resuscitation


- Calves should begin breathing right after birth
 - Clear the airway by wiping or suctioning fluid out of nose and mouth
 - Stimulate a sneeze by poking the nasal septum with a piece of straw
 - **DO NOT** hang calf upside down or swing the calf
- Dry the calf
 - Warms it up/keeps it warm
 - Stimulates breathing
 - If weather is cold can use a calf warmer
 - Allow cow to lick as well (promotes bonding)



26

Newborn care


- Calves should try to stand within 20 minutes of birth
 - Able to stand within 60 minutes
- Nursing should occur within 2 hours of birth
 - Colostrum antibodies only absorbed less than 24 hours of birth
 - Sooner the better!
- Dip navel in iodine tincture
- Allow cow and calf bonding time – heifers may need extra time alone with calf to bond



27

Adequate Colostrum Intake = Reduced Infections

- Colostrum contains antibodies against disease
 - Environmental
 - Vaccinated
- Unlike humans, antibodies do not transfer across the placenta



28

How do you know if calf got colostrum?

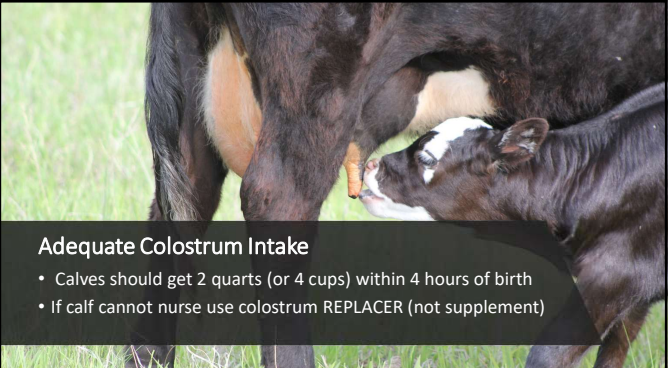
- Does Cow have adequate milk?
- Watch cow/calf nursing
 - Is calf satisfied?
 - Is cow letting him nurse?



29

Adequate Colostrum Intake

- Calves should get 2 quarts (or 4 cups) within 4 hours of birth
- If calf cannot nurse use colostrum REPLACER (not supplement)



30



Tube Feeding a Calf

31

Newborn toolkit

Strong iodine (7% Tincture)	Towels	Selenium	Colostrum replacer
Milk replacer	Nipples and bottles	Calf Stomach Feeder	Thermometer

32



33

What requires veterinary attention

- Newborns who fail to get up to nurse
- Unresponsive despite adequate warming
- Not nursing, lethargy
- Fever (> 102.0 degrees)
- Diarrhea

34

Newborn Calf Issues

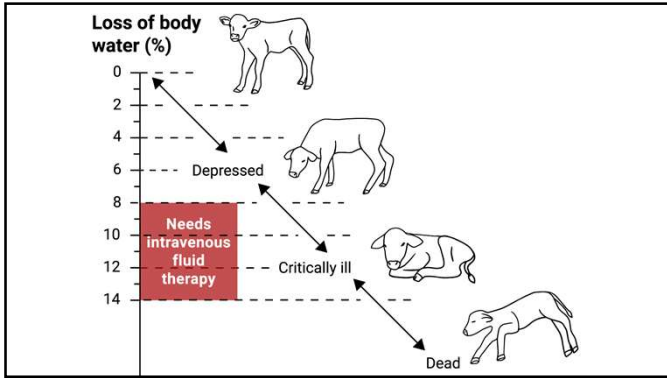
- Scours
- Umbilical infection
- Septic Arthritis

35

Calf Scours

- Caused by a variety of bacteria and viruses
- Increased incidence with inadequate colostrum intake
- Mild cases – increase fluid and electrolyte intake
 - Many products available
- Severe cases – intravenous fluids, antibiotics etc
- **DO NOT STOP FEEDING MILK**

36



37

Umbilical Infection

- Umbilical cord not treated with iodine
- Calves can have normal temperature (100.0° F to 102.5° F)
- Umbilical infection is common cause for joint ill

38

Septic Arthritis (Joint Ill)

- Infection of the joints
- Bacteria from umbilical infection travel to the joints
- More than 1 joint can be infected
- May require lancing, draining and flushing the joint

39

Post-calving problems for the cow

- Retained Placenta
- Metritis
- Mastitis
- Uterine prolapse

40

Retained Placenta

- Placenta not considered retained until after 12 hours
- May need help to pull out
- **DO NOT** rip out the placenta
 - Severely damages the uterus
- May need to let it rot out
- ± antibiotics
- Monitor for metritis

41

Uterine Prolapse

- Often related to hypocalcemia
- Need to replace and treat underlying condition
- High risk of hemorrhage and death even after replacement

42

Mastitis

- Can progress quickly
- Symptoms:
 - Swollen
 - Painful
 - Chunky milk
 - Hungry calf



43

Metritis

- Infection in the uterus after calving
- Symptoms:
 - Foul-smelling uterine discharge
 - Lethargy
 - Inappetance
 - Fever (> 102.5 F)



44

Reference Articles and More Reading

- <https://www.progressivecattle.com/topics/herd-health/helping-the-newborn-calf-get-a-good-start>
- <https://www.ag.ndsu.edu/news/newsreleases/2016/feb-1-2016/good-nutrition-vital-for-pregnant-cows>
- <http://www.angusbeefbulletin.com/extra/2017/11nov17/1117hn-pregnant-cows.html#Yd4R02jMLSI>
- <https://www.iowabeefcenter.org/calving/careforcalf.html>
- <https://www.progressivecattle.com/topics/herd-health/field-resuscitation-of-the-newborn-beef-calf>
- <https://www.progressivecattle.com/topics/reproduction/setting-up-the-newborn-calf-for-success>
- <https://animalrangeextension.montana.edu/beef/mooving-minutes/scours4-19.html>
- <https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/em8977.pdf>

45



46