Common Cattle Diseases
...and how to prevent them

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Diseases by Body System

- Respiratory Disease
- Diarrheal Disease
- Reproductive Disease
- Musculoskeletal Disease

Bovine Respiratory Disease

- Also known as shipping fever or pneumonia
- Interaction between viruses, bacteria and stress
- More than just an infection
- Can affect upper or lower respiratory tract
- Biggest killer of newly weaned calves
Economic Loss

- As high as $2 billion dollars annually
- Decreased gains
- Cost of labor
- Cost of treatment
- Cost of extra feed
- Death

Symptoms of BRD

- Coughing
- Nasal discharge
- Off feed
- Fever
- Depressed and isolated
- Breathing difficulty

Usual Suspects

- Bovine Viral Diarrhea (BVD)
- Infectious Bovine Rhinotracheitis (IBR)
- Bovine Parainfluenza-3 (Pi-3)
- Bovine Respiratory Syncytial Virus (BRSV)
- Mannheimia haemolytica
- Pasteurella multocida
- Histophilus somni
- Mycoplasma bovis*

* indicates potential antibiotic resistance
Vaccines for BRD

- IBR-BVD-PI3-BRSV (MDL or killed)
- *Mannheimia haemolytica* (bacterin with toxoid)
- *Pasteurella multocida* (bacterin)
- *Histophilus somnus* (bacterin)
- *Mycoplasma bovis* (bacterin)
- Base decision on risk vs cost
- Consult your veterinarian

Disease Management

- Isolate infected animals
- Initiate biosecurity protocols
  - Handle healthy animals first
  - Wear boot covers
  - Wash hands often
  - Wash clothes daily

Treatment of BRD

- Get the veterinarian involved
- Choose antibiotic and follow instructions
  - Broad spectrum: based on cost and efficacy*
  - SQ rather than IM
  - Dose, duration and withdrawal period
- Provide supportive therapy
  - NSAIDs (flunixin)
Drug Choices

Dose, duration, indication and withdrawal time versus cost.

<table>
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<tr>
<th>Antibiotic</th>
<th>Concentration</th>
<th>Type</th>
<th>Dose</th>
<th>Cost</th>
<th>Withdrawal</th>
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<tbody>
<tr>
<td>Pen G*</td>
<td>300,000 u/ml</td>
<td>OTC</td>
<td>1 ml/100 lb IM</td>
<td>$1.50 (4)</td>
<td>10 days</td>
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<tr>
<td>LA 200®</td>
<td>200 mg/ml</td>
<td>OTC</td>
<td>4.5 ml/100 lb SQ</td>
<td>$5.00 (1)</td>
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<td>Tylosin 200®</td>
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<td>20 mg/100 lb IM</td>
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<td>17 days</td>
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<td>Eucarcen®</td>
<td>50 mg/ml</td>
<td>Prescript.</td>
<td>1-2 ml/100 lb SQ</td>
<td>$10.20 (1)</td>
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<td>Biotramid®</td>
<td>300 mg/ml</td>
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<td>1.5-5.5 ml/100 lb SQ</td>
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<td>Resflor®*</td>
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<td>Prescript.</td>
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Diarrheal Disease

- Second largest contributor to calf losses
- Viruses: rotavirus and coronavirus
- Bacteria: E. coli, Salmonella and Clostridia
- Protozoa: cryptosporidia and coccidia
- Disease of environmental sanitation
- Treatment is unreliable
- Prevention is best practice

Contributing Factors for Diarrhea

- Cold and wet weather
- Overcrowding
- Overnutrition (upsets normal flora)
- Insufficient colostrum
Vaccines for Diarrhea

- IBR-BVD-PI-BRSV
- Rota-Coronavirus (killed)
- E. coli (bacterin with toxoid)
- Clostridium (bacterin with toxoid)
- Vaccinate dam prior to calving
- Oral vaccine available for newborns
- Colostrum supplement available for newborns

Diarrhea Treatment

- If multiple adult cattle- the feed is likely culprit
- Make sure coccidiostat is on board for adults in feed
- Isolate calf from other cow-calf pairs immediately
- Correct dehydration (may need IV fluids)
- Provide nutritional support
- Antibiotic in milk replacer

Reproductive Disease

- Causes infertility and abortion
- Viruses- BVD and IBR
- Bacteria- Leptospirosis, Brucella and Campylobacter
- Protozoa- Tritrichomonas and Neospora
- Other causes- nutritional deficits or heat stress
- Prevention is the best method
Vaccines for Reproduction

- IBR-BVD-PI3-BRSV (MDL or killed)
- Leptospirosis 5-way (bacterin)
- Vibrionsis (Campylobacter bacterin)
- Bang's (Brucellosis bacterin)
- Give at least 30 days prior to breeding
- Bang’s for heifers @ 4-12 months
- No effective vaccines for protozoa*

Reproductive Disease Testing

- Test new stock for BVD
- Test heifers and cows for neosporosis
- Test seasoned bulls for trichomoniasis
- Look at mineral deficiencies if problems persist

Musculoskeletal Disease

- Blackleg
- Footrot
- Septic joint
Blackleg

- Caused by Clostridia
- Associated with swollen, hard muscle
- Can cause sudden death
- Clostridium vaccine (bacterin with toxoid)
- Can treat with penicillin if early
- Treated cattle will have weak muscle

Footrot

- Also called infectious pododermatitis
- Caused by Fusobacterium and Bacteroides
- Bacteria enters through compromised skin
- Fusobacterium vaccine (bacterin)
- Zinc methionine in ration may help prevent
- Treated with antibiotics +/- foot bath

Septic Joint

- Account for 10% of all cases of lameness
- Usually involves front fetlock, hock or elbow
- Common bacteria - Hemophilus, Pasteurella, E. coli
- Less common - Mycoplasma from general infection
- Vaccines available for all organisms
- Treatment versus culling or euthanasia
Vector Diseases

- Pinkeye
- Anaplasmosis

Pinkeye

- Also called infectious bovine keratoconjunctivitis
- Poor weight gain from pain and vision loss
- Caused by Moraxella bovis
- Tears from eye irritation attract face flies
- Moraxella vaccine (bacterin)*
- Treat with antibiotics +/- flunixin
- Fly control is very important!

Anaplasmosis

- Caused by Anaplasma marginale*
- Adult cattle are at most risk
- Spread by ticks, biting flies or needles
- Cattle lose weight, are weak and die from anemia*
- Anaplasma vaccine (bacterin) from LSU*
- Treat with tetracycline antibiotics
- Vector control is very important!