Calf Investigation Data

Owner’s perception of problem or chief complaint:

What does owner /producer want to get from the visit?

Herd Signalment:

Colostrum Testing
Colostrum sample
- Bulk tank culture
- *Salmonella* spp. Culture

Colostrum Storage
- Check the boxes that apply:
  - Colostrum containers are exceptionally clean
  - Most but not all containers are clean
  - Containers are dirty
  - Colostrum is clean and free of debris or manure contamination
  - Colostrum is generally clean but some debris or particles are present
  - Colostrum is dirty – lots of debris, manure or dirt particles
  - Containers are well marked-cow ID and date collected
  - Containers are poorly labeled – inadequate information
  - Containers are not labeled
  - There are individual colostrum containers.

Colostrum Herd Questions

- Unobserved calvings occur on a regular basis, e.g. night time
- Calves remain with dam for ≥ 90 minutes
- Colostrum administration occurs ≥ 4 hours after calving
- Fresh cows are milked ≥ 6 hours after calving
Calves do not routinely receive either 4 quarts (3 quarts for Jerseys, Ayrshires, Guernseys) of first milk colostrum or 1 package of colostrum replacer within 4 hours of birth

Colostrum replacement or supplement are mixed in with colostrum

There is a shortage of colostrum from appropriate donors without a back-up supply of colostrum replacement product or frozen colostrum readily available

There is more than a 2-hour lapse between colostrum milking and either feeding or refrigeration of colostrum

Refrigerated colostrum is > 7 days, frozen colostrum is > 1 year or has been through more than 1 freeze-thaw cycle

Bacterial contamination of colostrum is excessive (total bacterial count > 1,000,000 cfu/ml and/or fecal coliform count > 10,000 cfu/ml)

Colostrum is routinely pooled

Fresh cow health is poor

Transition cow management (nutrition, group changes, bedding, density, vaccinations, medications) is a concern

Milk Samples

Waste milk or hospital pen milk fed to calves
- Pasteurized or not
- Bulk tank culture
- Salmonella spp. Culture
- If stored, is it chilled or ambient temperature
- Temperature at feeding

Milk Replacer
- Bulk tank culture
- Salmonella spp. Culture
- Sodium concentration
• Osmolality
• Temperature at mixing
• Temperature at feeding
• Product name:
  - Crude Protein
  - Fat

Milk or Milk Replacer additives
Number of feedings that contain additives

**Oral Electrolyte solution**

Fresh mixed sample:
• Sodium concentration
• Osmolality
• Fed separately or mixed in milk (replacer) – circle one
• Volume fed per day
• Number of feedings per day

Collect feed (milk replacer, grain) tags or relevant materials regarding supplements of any kind (list):

**Test of passive transfer**
Calves < 1 week of age. Sample size should be 12.

<table>
<thead>
<tr>
<th>Calf Identification</th>
<th>Birth date/Age</th>
<th>[Total Protein]</th>
<th>Other IgG tests</th>
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_______% that have passive transfer (≥ 5.5 g/dl or positive IgG test)

### Fecal Examination

<table>
<thead>
<tr>
<th>Animal ID</th>
<th>Age or date of birth</th>
<th>Fecal Score</th>
<th>EM for Virus</th>
<th>Smear for C. parvum</th>
<th>Salmonella culture</th>
<th>Comments</th>
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Fecal score:  
0 – Normal  
1 – Semi-formed, pasty  
2 – Loose but with enough consistency to stay on bedding  
3 – Watery

### Environmental Assessment

- Non-immune shedders (calculate rate of FPT)  
- Bedding management
  - Cleanliness of stalls (manure)  
    (Use a scale of 1 to 4, 1 being excellent, 4 being poor)  
  - Dry bedding  
    (Use a scale of 1 to 4, 1 being excellent, 4 being poor)  
  - Depth of bedding in average stall  
  - Subjective assessment of calf comfort  
  - What disinfectant is used?  
- Spatial density (calf to calf contact)  

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4
- Commingled age groups (chronic sick calves, weaned calves, older heifers, adults – calving, sick or lame cows) – Circle all that apply
- Temporal density (time between successive occupants of a single stall):
- Other stressors (comment on relevant factors)
  - Vaccinations
  - Medications
  - Feed or feeding practices
  - Water availability
- Subjective assessment of air quality
- Ventilation assessments performed
- Aerosolized bacterial counts (sites sampled)

Calf Health Scores

<table>
<thead>
<tr>
<th>Calf Scores</th>
<th>(Total scores: 4 – watch, 5 or more – treat)</th>
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<td>Animal ID</td>
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Scoring Criteria

**Temperature score:**
0) 100-100.9;
1) 101-101.9;
2) 102-102.9;
3) $\geq$ 103˚F

**Cough:**
0) None;
1) Induce single cough;
2) Induce repeated cough or occasional spontaneous cough
3) Repeated spontaneous coughing

**Nasal discharge:**
0) normal serous discharge;
1) small amount of unilateral, cloudy discharge;
2) bilateral, cloudy or excessive mucus discharge;
3) copious, bilateral, mucopurulent nasal discharge

**Eye or ear**
0) normal;
1) small amount of ocular discharge;
2) moderate amount of discharge both eyes or slight ear drop
3) head tilt or both ears dropped

**Fecal Score**
0) normal
1) semi-formed, pasty
2) loose, enough consistency too stay on bedding
3) watery

**Respiratory Samples:**

<table>
<thead>
<tr>
<th>CALF ID</th>
<th>AGE OR DOB</th>
<th>NASAL SWAB</th>
<th>BAL FLUID</th>
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**Environmental samples:**

Environmental swabs (list sources such as pails, esophageal feeders)

Other materials such as bedding or feed (please list sources):