

# **SOP**



## Fresh Cow Quarantine SOP

**Reference:** Animal Nutrition and Conditions, Item 6

**Risk Reduction:** Prevent contamination of milk for human consumption with colostrum.

Properly care for fresh cows. Colostrum which is essential to calf

nutrition

**Frequency:** 24 hours a day, 7 days a week

**Remediation:** If this procedure is suspected to be inadequate, investigate root causes of

cross contamination and revise the SOP and infrastructure for its

implementation

**Procedure:** Follow the procedures below

1. Fresh cows are collected from dry pen

- a. Dairy staff marks a green "F" on her hip with dairy chalk paint to provide a visual reference indicating the fresh cow status.
- b. Dairy staff records the fresh cow on the fresh cow sheet.
- c. Fresh cow is put in the hospital pen for management, milking and care.
- d. Herdsman records the cow in DHI Plus.
- 2. First 1-3 days after freshening
  - a. Collect colostrum from fresh cows in hospital pen/pen 1.
    - i. Use a separate, designated milk machine, hose, bucket for all fresh cows.
      - 1. Do not use the mastitis bucket and machine with hose.
      - 2. Keep bucket, milk machine, separate hose in sanitizer solution between uses.
    - ii. Milk this cow slowly (not all at once) into stainless milk bucket.
    - iii. After milking, pour the colostrum into plastic single-use drench bags and freeze to be later fed to newborn calves.
    - iv. Dairy staff thoroughly COP clean the stainless milk bucket prior and milk machine.
    - v. Non-conforming colostrum (bloody, mastitis, etc.) should be discarded and not fed to calves.
      - 1. Wash the bucket thoroughly prior to setting all parts in bucket with water and sanitizer solution between use.
    - vi. All colostrum shall be collected in a clean, sanitary fashion using all standard operating procedures for udder cleanliness.
- 3. Moving to pen 1
  - a. Pen 1 is the quarantine pen for all fresh cows until pathogen and zoonotic disease is confirmed negative.
  - b. Pathogen testing protocol below.
  - c. Milk cultures testing protocol below.



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d. The fresh cow will stay in pen 1 for at least 40 days while undergoing weekly pathogen test for all 4 pathogens: e.Coli 0157:H7, salmonella, campylobacter, listeria.

### 4. Pathogen Testing

- a. All fresh cows will be tested for all 4 human pathogens (E. coli 0157:H7, salmonella, Listeria M, campylobacter) a minimum of three times, prior to being released to the "Grade A" milk tanks of silos 1 and 2.
- b. A sample will be taken by the Lead Milkers 72 hours after calving and every 7 days after completion of the previous test (roughly weekly).
- c. Take a composite test
  - i. A sample from each quarter of the udder should be obtained in sample vile.
  - ii. Udders will be fully prepared and teat ends sanitized with alcohol wipes prior to sampling.
  - iii. A minimum 5-squirt sample should be obtained from each udder.
  - iv. Identify sample: with an individual identification number and date (written legibly).
  - v. Each composite sample identification number should be recorded. All cows in each composite should be recorded on a data record sheet.
  - vi. If a Certificate of Analysis reflects a positive pathogen: each cow represented in the composite will be tested individually, and milk will be quarantined until confirmation of individual cow results are confirmed negative.
- d. Results from the pathogen test will be entered by the Quality Assurance Supervisor into DHI Plus under the "User Defined 21" input function, along with culture results.

#### 5. Cultures

- a. 24-48 hours after freshening, after first milking, collect milk sample for culture following Milk Sample Collection Protocol.
- b. Culture to be sent to laboratory as quickly as possible; no longer than 48-hour delay.
- c. Record culture results in DHI Plus.
- d. Upon receipt of results, Management will immediately determine a course of action for each cow.
- e. Upon receipt of the results, record results in DHI Plus, the Management team will immediately determine a course of action for each cow

### 6. Movement of cow out of Pen 1

- a. Fresh cows can only move out of Pen 1 if they meet the requirements:
  - i. Negative Staph Aureus and zoonotic illness.
  - ii. Negative for all 4 pathogens for all tests since freshening.
  - iii. At least 40 days in milk.
- b. Move cow to Pen 2 or Pen 4 depending on Holstein or Jersey.
- c. Document string change in DHI Plus.