**Fon Du Lac Farm—Standard Sanitary Operating Procedures**

**Preparation of the Milking System Prior to Milking**

Milker enters the machine room and turns on the vacuum and turns off the chiller to prepare for a CIP wash.

Milker then enters the wash room. A sanitation mat is located outside the door and all milkers must sanitize boots each time prior to entering the wash room.

Milker runs water to achieve approximate 100 degree temperature.

24 ounces of 34% peroxide sanitizer is placed in the stainless steel vat, and the CIP is allowed to cycle for 7 minutes.

After the wash completes, the water is cycled out and the system is drained. The vacuum pump is turned off, and the cooler plates are turned on once again.

Milker removes the cap from the milk receiver and inthe cap from the chiller plate to drain all of the water out of the milk lines.

Milker enters the tank room. A boot sanitation mat is located outside the door and milk sanitized boots prior to entering. Milker removes the 90 degrees tank elbows that are the direct ports that go into the tank. Elbows and the accompanying clamps are place in a 5 gallon bucket of water and peroxide sanitizing solution.

Milker enters the milking pit/parlor and starts taking down the the milking clusters and preparing them for milking by ensuring that all water is removed from the clusters and milk hose.

Milker enters the wash room and installs a 3’ long disposable micron inline filter in front of the chiller plate.

Milker enters back into tanks room and replaces one of elbow receivers to the tank that will not be used. Another milk sock filter is installed inside the tank that will be filled during that milking. The elbow is replaced and the milk line reattached.

**Preparing the Cows for Milking**

All cows are brought to a holding area adjacent to the parlor.

Eight cows at a time are brought into the parlor.

Working in groups of four and starting with the first in the line, the milker moistens the rear feet and teats of one cow at a time with a hose.

Again working down the line of four cows, each cow’s rear feet are sprayed well with a hose to removed all manure.

One cow at a time, each udder is washed by a water sprayer nozzle and worked with a gloved hand to remove all manure and soil. Special attention is give to teat sphincter.

Paper towels are used to completely dry the udder, to ensure absolutely no moisture on the udder or teat. Paper towels are not used on the same cow.

Teats are pre-dipped using a .5% iodine teat dip solutions. All 4 cows are dipped, starting with the first and working down the line, allowing the sanitizer to remain on each cow’s teats for a period of time.

A small amount of sanitizer is applied to milker’s gloved and a minimum of 3 strips are taken from each teat, with extra attention given to ensuring that no debris is left around the teat sphincter.

The iodine is removed from each teat using a paper towel.

Grain is offered to each cow, and then the cluster is hung on each cow and the cows are milked out.

As the first group of 4 cows in the barn are being milked, the the remaining 4 cows in the parlor are prepared for milking in the same manner.

When done, the clusters are removed. A barrier dip, Bovadine, is applied to each teat.

The cows are then released back into the corral where the have feed awaiting to assure they remain standing for a period after milking.

**Milk Chilling and Bottling**

During collection, milk passes through a micro sock filter directly before entering the plate chiller. The plate chiller lowers the milk temperature to 38 degrees.

The milk is again filtered prior to entering the bulk tank.

The milk in the tank is held at 36 degrees and temperature is verified by gage thermometer.

**Milk Bottling**

All milk handlers wash hands prior to beginning the bottling process and wear gloves for the duration of bottling. They wear clean clothing and designated boots in the processing room.

Boot sanitation mats are provided outside the processing room doors and all workers are required to sanitize boots prior to entering.

Prior to bottling, a SNAP test is performed on the bulk tank to ensure the absence of antibiotic residue, as per state requirements.

Immediately before bottling, all parts of the bottler are sanitized using a detergent and peroxide sanitizer.

Sanitized food grade hoses are attached to the tank, the pump and the bottler.

The bottler is then assembled.

Single use plastic bottles are filled one at a time. Caps are applied automatically.

Staff inspect each bottle that comes off the bottler for defects or leaks. Bottles are sprayed off with water to ensure no milk residue.

Clean, sealed bottles are placed in crates.

Labels are applied to bottles in the plates. Water proof date labels applied to lids.

Crates are taken immediately to the cold storage areas.

Workers re-sanitize boots upon re-entering the bottling room from cold storage.

**Cleaning the Milking System**

Both milk filters are removed from the milk line and inspected.

The milk line is closed at the tank in preparation for the CIP.

Milker enters wash room and fills wash bucket with chlorine sanitizer. Milker reenters milking pit and hand washes the exteriors of each milk clusters. The clusters are reattached to the jetter cups in preparation for the CIP cycle.

The entire entire of the parlors is washed and scrubbed down with the sanitizing solution: exterior of milk lines, hooks, curbs, walls, etc.

The CIP 3 phase cycle then run on system. Each phase is run for a duration of 7 minutes: Cool rinse, detergent soap, and then acid wash. Water entering the system during the detergent cycle to be over130 and not to drop below 120.

At the completion of the CIP, water is drained from the milk lines and the chiller is turned on once more.