

## KINIKIN CORNER DAIRY

### **DAIRY OPERATING STANDARDS**

Our goal is to support a healthy group of milking cows, to harvest their milk in a clean manner and properly store and bottle it. The following is a description of how we do things and what we use to do them. It is a more accurate picture of our operation than a list of standards.

#### **Disclaimer:**

This is a working farm with a lot more work to be done than hours in the day or hands to get it done with. This is reality. In bad weather this place gets muddy and so do the cows. Manure can get everywhere. When there are obvious problems, like a milker falling off the cow, we will discard that milk, clean up the milker and get going again. We watch the cows closely for health, provide free choice minerals, kelp and apple cider vinegar and spread new bedding as timely as possible. Some days we don't get it all done. But we will strive to do the best we can to keep all facilities clean. We are extra special careful with the milk and associated equipment. It is important for shareholders to visit the farm and ask questions. You need to see this operation for yourself.

#### **Description of Facilities:**

Cows are allowed open access to our fields, no confinement. In summer, they graze and in winter we feed them on the same fields. Cows have access to the irrigation ditches in summer and to stored pond water in winter. We have a large covered area for loafing and bedding in the winter.

Milking is performed in an open shed with a dirt floor. The holding pen is the same. Both are bedded with hay or straw. Access to the milking/holding area from the fields is either down our lane or up and across a ditch. Both are dirt pathways and become muddy in stormy weather.

We use bucket milking machines to milk. A garage like addition to our personal residence is used as a milk room. It has a concrete floor with drains. Hot water is provided with two tankless instant water heaters. A two compartment stainless steel sink is used for washing milking and bottling equipment. A large stainless steel table is used for bottling and storage of milking equipment. Two stainless steel carts are used for storage of milking parts, small jars and other miscellaneous items. Four refrigerators store milk products. A small separate stainless steel sink is provided for hand washing. A Jackson undercounter commercial dishwasher is used to wash the milk jars and lids. It is a low temp unit and adds chlorine to the rinse. A refrigerated farm bulk tank is used to store the milk. A small separator is used to make cream and skim milk.

### **Procedures:**

Cows are brought in from the fields into a covered holding pen for milking. They are brought into the milking area two at a time and directed to two head catch stalls. The teats are washed with a rag wet with an iodine solution. A clean rag is used for each cow. The teats are dried and the milking machine attached. After milking the teats are dipped in a commercial iodine based teat dip or greased with a purchased udder balm of mixed vegetable oils.

The milk bucket is then carried into the milk room and poured through a filter into the bulk tank. It is set to chill the milk to 35°F. Bottling is performed three times a week. A stainless steel bucket is filled from the bulk tank outlet and the milk is then poured into the individual jars four or five at a time on the stainless steel table. The jars are lidded and then placed into the refrigerators. Jars are washed with the dishwasher prior to filling. Jar washing may take place up to three days prior to filling. We sometimes wash them immediately before filling.

All equipment, including the bulk tank, is sterilized immediately before use with a chlorine solution. Within a short time of use, equipment is rinsed, washed with hot water (close to 120 °F) and automatic dishwashing soap. Next the equipment is rinsed. This rinse is sometimes an acid rinse. The acid is a standard commercial dairy acid. We then rinse the equipment again with a chlorine solution and place it on clean towels for storage until the next use. Items other than the buckets are covered with a clean tea towel. The bulk tank is self-contained with its own covers and lids.

### **Milk Testing:**

We are testing bulk tank milk monthly for Salmonella, E.coli O157, Campylobacter, coliform and standard plate count. The cows are individually sampled monthly for somatic cell counts. The following tests and limits are from the recommendations set by the Raw Milk Association of Colorado.

Tests and limits:

Standard Plate Count < 15,000 CFU/ml (test for all bacteria)

Coliform < 50 CFU/ml (specific test for fecal contamination)

Somatic Cell Count < 400,000 (basic cow and udder health)

Milk must be negative for Salmonella, E. coli O157 and Campylobacter.

We will cease distribution of milk if a test returns positive for the pathogens or non-compliance to SPC, coliform or SCC. We will test individual cows to see if one or more cows are the problem. If so, they will be excluded from the bulk tank and either removed from the herd or monitored until clean. Another bulk tank sample will be tested and distribution resumed when test results are negative for pathogens or compliance with SPC, coliform and SCC is confirmed.