Achieving Top Quality Milk

3 STEPS TO ACHIEVE TOP QUALITY MILK

1. The Cow. 2. The Environment. 3. The Milker

THE COW

All cows should be clearly identified and where possible, Freeze Branded. Wash teats and udders and thoroughly dry, with clean disposable paper towels, prior to milking. Milk from unhealthy cows must be discarded. Inspect fore-milk for signs of clinical mastitis. Take necessary precautions to ensure that all milk is free from Antibiotics/Inhibitors, Pesticides and Disinfectants.

THE ENVIRONMENT

All milking equipment must be properly cleaned daily - wash outside of clusters. Milking parlour must be washed after every milking.

THE MILKER

The milk-person must maintain a high degree of personal hygiene. Wear clean clothes. Always wear disposable gloves (helps to prevent spread of infection).

Washing Milking Machine and Bulk Tank : Milk Filter : Cooling

Rinsing Procedures

Wash outside of clusters and put on jetters. Rinse plant with 9 litres/2 gls of cold water per unit. Rinse plant with 14 litres/3 gls of warm water per unit (more efficient at removing milk residue).

Washing Procedures

- Make up detergent solution (use approved products only) in hot water - as per approved specification for quantity, temperature and volume/unit.
- Draw detergent solution into plant, allowing first gallon to waste, and circulate for 10 minutes.
- Return solution to wash trough for use after evening milking. Rinse plant with warm water as above followed by cold water rinse.
- Before next milking rinse plant with 9 litres/2 gls water/unit.
- After evening milking rinse plant with cold water rinse followed by warm water rinse.
- Circulate the detergent solution for ten minutes and run to waste.
- Rinse plant with warm water as above followed by cold water rinse.
- Before next milking rinse plant with 9 litres/2 gls water/unit to remove any traces of detergent solution.

Note: Washing routine is only successful if detergent is made up daily and only used morning and evening. It is vital to use detergent wash each evening.

Descaling Procedures

- Use acid descaler every 2 weeks at least, weekly in hard water areas.
- Temperature of descale solution must be as per product specification.
- Rinse plant with 9 litres/2gls. of cold water per unit after milking. Rinse plant with warm (40°C) water.
- Circulate descale solution for 10 mins and run to waste. Rinse plant with cold water.
- Flush plant with cold detergent wash as above.
- Final rinse plant with cold water.

Bulk Tanks

- Bulk tanks must be fully washed after every collection with approved detergent.
- For descaling bulk tanks the same frequency should be used as with milking machine.
- Pay particular attention to outlet valves, spray balls and lids when washing.
- Ensure tank is serviced annually.

Filter Sock

- A new or clean filter sock must be used at each milking.
- Remove before washing of the machine.
- Ensure that the sock is fitted properly (helps to reduce/eliminate. sediment levels).
- Examine the sock for indications of clinical mastitis (clots).

Cooling Milk

- All milk must be cooled and stored at 4°C.
- Holding milk at a high temperature has a serious negative effect on its quality.

TCM's (Trichloromethanes)

Excessive chlorine traces in milk pose a serious health risk. If active chlorine comes in contact with an organic material such as milk , chlorine binds to the organic compound and forms total organic chlorine.

THE PRODUCTION OF SUCH TCM'S CAN BE MINIMISED BY APPLYING THE FOLLOWING: -

1. Sufficient pre-rinsing is necessary to remove all traces of milk, so that milk will not interact with the active chlorine in the cleaning and disinfection solvent.

2. Only the recommended and accurate volume of cleaning and disinfection solvent containing the correct level of active chlorine should be used.

3. Storage and re-use of cleaning and disinfection solvents should be minimised.

4. Sufficient post-rinsing is necessary to remove all traces of the cleaning and disinfection solvent.

Milk Lactose

Lactose is a good indicator of the processability of late lactation milk. Milk with a Lactose level of less than 4.20% is unsuitable for processing into premium products and can cause serious problems in product quality, flavour and stability.

RECOMMENDATIONS TO MAINTAIN MILK LACTOSE >4.20%

- **Dry off cows producing less than 9 litres/2 gls/day**
- **Extend the grazing season in autumn/early winter, if possible**
- **Feed 2kg meal to spring calvers in late lactation**
- **Dry off high cell count cows**
- **Ensure the milking machine is working properly**

Somatic Cell Count

- **Test your milking machine annually**
- **Pre strip all cows - check for mastitis**
- **Wash and dry cows at housing times**
- **Teat dip cows immediately after milking**
- **Identify antibiotic treated cows and segregate**
- **Filter sock - Use clean or new filter sock before each milking. Helps to reduce sediment, clots and thermodurics**
- **Milker must always wear gloves**
- **Dry off cows abruptly- do not milk once a day**

Thermodurics in Milk

- Present clean cows for milking - ensure cows teats are clean
- Change liners twice yearly and milk tubing annually
- Use potable water (which meets bacteriological standards)
- Use hot water @ 75°/80°C weekly - check temperature regularly
- Descale procedure as above
- Clean Vacuum Line once every 10 weeks
- Clean Breather Lines and fit suitable filter
- Parlour must be washed between milking
- Passageways and walkways must be kept clean

For MILK COLLECTION ENQUIRIES OUTSIDE OF OFFICE HOURS

Ring the Co-Op Number 062-33111

and leave a message for Milk Collection.

For more detailed information refer to

Tipperary Co-op Milk Quality/ Composition Regulations 2009 and Teagasc Milk Quality Handbook

All approved Washing Materials, Rubberware and Liners, are available at our Branch Stores :

O'Brien Street 062 - 33111 Borrisoleigh 0504 - 51117 Goolds Cross 0504 - 42444

Fitzpatrick Printers, Tipperary. 062-51113. Spring 2009