

# BEGA CHEESE ON-FARM QUALITY ASSURANCE

## MANUAL 1

### Hazard Analysis & Standards





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# Introduction

The Bega Cheese & Tatura Milk (Bega Cheese) on Farm Quality Assurance Programme is a management system. It provides tools, training and procedures for Bega Cheese dairy farmers to help ensure that the quality of their milk and slaughter animals meet health, regulatory and market requirements specified by government authorities, Bega Cheese, and Bega Cheese's customers.

Since July 2000, it has been a requirement of all raw milk suppliers, that the farm has a quality assurance system that complies with the specifications of Bega Cheese and the relevant food authority. It is a condition of supply that all farmers maintain accreditation of their farm safety plan with the relevant state food authorities. Because all Bega Cheese farmers have an accredited plan, Bega Cheese has a quality profile: from the farm to the consumer.

This quality profile is often referred to as 'quality from paddock to plate'. Bega Cheese can demonstrate this profile to customers, and this enables Bega Cheese to secure many market opportunities.

Bega Cheese requires all records as part of this on Farm Quality Assurance Programme to be permanent in nature. White boards for temporary recording are ok, but these records must be transferred to a permanent record.

Bega Cheese's on-farm quality assurance system is based around four manuals:

1. *The 'Hazard Analysis and Standards' (this booklet - THE RULES)* — which sets out the rules for safe food production for Bega Cheese dairy farm suppliers' by listing the Hazards, Standards and the Records and Monitoring required.
2. *The 'On-Farm Quality Assurance Plan' (THE FOOD SAFETY PLAN)* — which is used by farmers and farm advisers to set up an on-farm quality assurance programme.
3. *The 'On-Farm Quality Assurance Monitor Book' (THE RECORDS)* —which is used for most quality assurance records, and hygiene and maintenance checks.
4. *The 'Farmer Self-audit' (THE CHECK LIST)* — which is used to ensure the farm assesses its system and considers all aspects of the system at least once per year.

Note: Reference material and spare recording sheets are available on the Bega Cheese & Tatura Milk supplier portals on the web page.

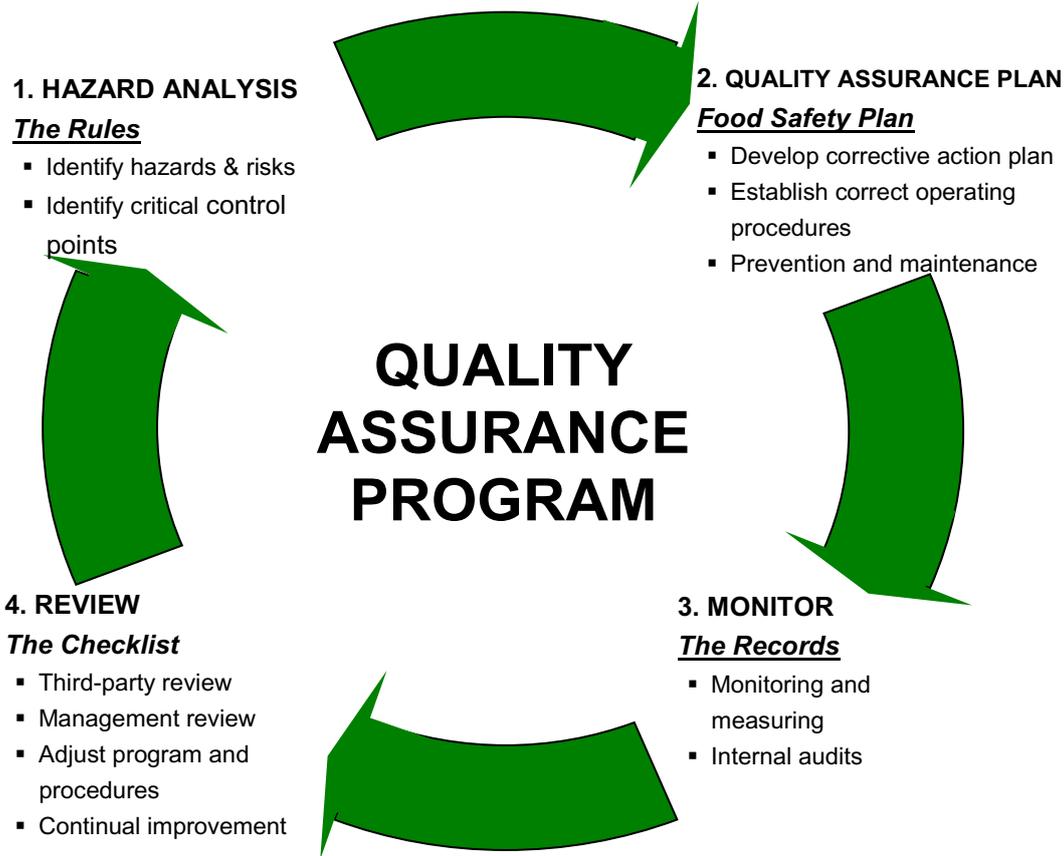
## General Disclaimer

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**What are the key features of Bega Cheese On-farm Quality Assurance?**

The Bega Cheese On-farm Quality Assurance Programme is a process of continual improvement—it evolves with the needs of customers and farmers. The program takes a preventative approach to safe milk production. The principles of continuous improvement are also used in other aspects of Bega Cheese milk supply activities. The continuous improvement model is as follows:

**Figure 1: The Bega Cheese On-Farm Quality Assurance Programme**



Bega Cheese on Farm Quality Assurance Programme is based on the Hazard Analysis Critical Control Points (HACCP) approach to quality assurance.

The **process steps** of milk production are animal feeding and treatments, milking, milk cooling and storage and the cleaning and sanitation programmes. These have critical control points for the production of safe quality milk.

## **Hazard Analysis Critical Control Points (HACCP)**

The HACCP approach is a method used in the food industry worldwide to manage quality assurance systems for food production. It is a requirement of all food authorities in Australia that dairy farms have a milk safety plan based on HACCP principles.

The essential features of HACCP are:

- Conducting a hazard analysis to identify the hazards to food safety and quality
- Identifying critical control points along the production chain to eliminate or control the hazard
- Establishing critical limits in the process
- Establishing monitoring procedures
- Establishing corrective action to be taken when monitoring indicates that a particular control point is not under control
- Establishing a record keeping system
- Establishing verification procedures to confirm that the HACCP system is working effectively

The HACCP system involves identifying the potential risks, introducing control measures, monitoring the results, and taking corrective action where necessary.

The Bega Cheese On-farm Quality Assurance Programme provides for the development of procedures that will suit all individual farm situations. The manuals document all components of a dairy farm HACCP system. The booklets are used in conjunction with the farm's existing record systems and procedures.

### **What do farmers need to do?**

Step 1: Read and file the 'Hazard Analysis and Standards' (THE RULES) booklet.

Step 2: Work through the 'On-Farm Quality Assurance Plan' (THE FOOD SAFETY PLAN) booklet. Place a tick against each task in the boxes when you are comfortable that the task is completed for your farm. When all the tasks have been completed, sign and date the first page to signify that the farm has implemented a quality assurance plan.

Step 3: Complete the records in the 'On-Farm Quality Assurance Monitor Book' (THE RECORDS) as required. Each year, the farm will start a new Monitor Book. This book provides the evidence that the food safety plan is being managed.

Step 4: Every year, complete the Farmer Self Audit (CHECK LIST), which is in Manual 4. This must be done before the external audit or before a non-compliance audit.

### **Accreditation and relevant Acts**

All dairy farms must hold a current dairy farm licence. The milk must be harvested and held in an approved dairy premise. It is a condition of supply to Bega Cheese that the farm has an accredited farm quality assurance (QA) plan. Accreditation is issued by Australia's state food authorities, and they require that a farm's QA plan includes the minimum essential elements for food safety and quality. The essential elements for Bega Cheese suppliers are contained in the relevant state acts and the Australian New Zealand Foods Standards Code—'Standard 4.2.4 Primary Production and Processing Standard for Dairy Products'.

### **Auditing**

Performance based audits will be conducted by an approved auditor as often as is needed—based on the quality results and previous audit outcomes for the farm. In other words, the audit frequency is based on the farm's performance. The relevant state food authorities, as appropriate, will issue accreditation certificates and licences as required. Audit outcomes on farm are considered by the relevant State Food Authorities at the time of renewing accreditation certificates and licences.

The purpose of periodically reviewing and auditing the on-farm programme is to check on record keeping and ensure that the procedures, as set out in the Quality Assurance plan, are being followed. (In this context, the terms 'review', 'assessment' and 'audit' are largely interchangeable).

### **Non-conformances and suspension of supply**

Non-conformances refer to the items that are found not to comply with the procedures set out in the manuals. A non-conformance can also be issued by Bega Cheese representatives as part of the Bega Cheese Milk Supply group quality management system. Action must be taken as needed to deal with any non-conformance.

Accreditation may be suspended if either:

- Any critical non-conformances are found during an audit, critical non conformances require the auditor to notify State food authorities of the breach in safety within 24 hours, and the non conformance must be cleared by an authorised officer, or
- The sum of major or minor non-conformances is sufficient to accumulate enough demerit points such that the audit fails. In this case the supplier has a month to rectify the issues or the non conformance escalates to a critical (as above).

The suspension will remain in place until the non-conformance has been rectified and checked by the regulator or Bega Cheese's auditor (or both). Bega Cheese and the relevant authority can suspend supply if critical non-conformances are not addressed or the farm poses an unacceptable and ongoing food safety or quality risk. Audit guidelines can be obtained from the relevant food authority. Bega Cheese's requirements for supply are outlined in the Suppliers Handbook.



# 1. Property and herd status and livestock trading

## Hazards

- Residues of agricultural chemicals can be transferred from contaminated soil to the milk and meat of slaughter animals.
- Food safety is at risk if milk and meat animals are sold for human consumption that are contaminated with unacceptable levels of residues or pathogenic organisms.
- Inaccurate traceability of stock may lead to a critical failure to determine the residue and disease status.
- Purchased livestock can introduce diseases (e.g. BJD) to your property, and they can have chemical residues.
- Some livestock diseases are similar in nature to human diseases and infected herds pose a perceived (BJD), if not potential (TB), consumer risk.

## Standard

- No contamination of milk and meat with chemical residues from contaminated sites or from introduced stock.
- Maximum residue limits (MRLs) for a range of chemical residues in milk, meat and offal are specified in the Australian Food Standards Code.
- All farms to develop livestock purchase and sales procedures for dairy herd replacements, cull cows, bobby calves, bulls and beef stock that meet the national herd health standards by following BJD and other protocols (issued from time to time) for all livestock purchases and sales.
- Maintain National Vendor Declarations for all purchased and sold animals, and those on agistment. Keep appropriate stock movement procedures and records for traceability of all cattle to ensure milk and meat are produced from healthy animals only.
- All herds that supply Bega Cheese to be assessed under the Dairy BJD Assurance Score

## Monitoring and records

- Farmers to maintain records of:
  - The official herd disease status of the property (such as BJD).
  - The property's status and history for organochlorines and other chemical residue (if required).

- If supplied, retain and file results of processor chemical residue tests—including abattoir notifications from trace back for all types of chemical residues from tests of milk and meat
- Chemical residue test results on soil samples on file (if required).
- Dairy BJD Assurance Score.
- BJD and National Livestock Vendor Declarations when purchasing or selling cattle.
- An up-to-date 'Farm MAP'.
- Property risk assessment record (completed at least once for all grazing properties).
- Stock treatment records (for reference and trace-back).
- Document Property Identification Code (PIC) in manual 2.

## 2. Livestock identification

### Hazards

- Positive identification and accurate traceability of stock (as individuals or groups of individuals) is critical and a system failure will affect the farm's ability to:
  - Determine the residue and disease status of stock.
  - Manage veterinary chemical and drug treatments.
  - Undertake sound livestock husbandry.
- Livestock (including bobby calves) sold for slaughter or milk delivered to a processor prior to the expiration of a withholding period (WHP) or export slaughter interval (ESI) are likely to be contaminated with chemical residues above the minimum residue limit (MRL).

### Standard

- All livestock positively and individually identified at all times and procedures implemented and records maintained to enable livestock traceability and to support livestock treatment and management records.
- All stock for sale identified with the National Livestock Identification Scheme (NLIS).

### Monitoring and Records

- Farms to maintain a Stock Register.
- Regular physical inspection of stock IDs (i.e. checking ear tags).
- National Livestock Vendor Declaration.
- Stock treatment records.



# 3. Antibiotic drugs, agricultural and veterinary chemical use and storage

## Hazards

- Antibiotic residues in milk pose significant risks to human health and significant costs to Bega Cheese's business.
- Veterinary medicines may cause residues in milk and meat if used incorrectly. This will result in loss of market confidence and endangering the health of consumers. They may also interfere with the processing of dairy products.
- Veterinary medicines generally have different withhold periods for milk and meat.
- Chemical residues in milk and meat could come from:
  - Antibiotics—oral, injectable, intramammary and intrauterine. (Some consumers are allergic to certain antibiotics).
  - Parasite treatments—drenches, injectable, pour-ons and dips.
  - Hormones—reproductive treatments and growth promotants.
  - Analgesics and anti-inflammatory drugs.
  - Mineral treatments—such as copper, cobalt, zinc, selenium.
  - Teat dips, sprays and ointments.

## Standard

- Compliance with the MRL in milk and meat for human consumption as specified in the Food Standards Code, through the safe and responsible administration of veterinary chemicals to stock to prevent residues of antibiotics and other veterinary chemicals. Observe both Milk and Meat withhold periods.
- Identify and record animals or groups of animals treated, pastures, crops or feed that has been treated. This is to be done within 48 hours of treatment.
- The farm must have a system of 'Temporary Marks' for treated milking and dry cows.
- The use of Oestradiol 17 and its esters is restricted for international trade reasons:
  - Oestradiol cannot be used in lactating dairy cows.
- The use of the hormone recombinant Bovine Somatotrophin (rBST) is not permitted

- MLA Livestock Production Assurance (LPA1 and LPA2) requires that animals bred only for beef production should have injections administered into the neck region, unless the injections are site-specific, and then no more than 10 ml of intramuscular injection is to be administered into any one site.
- Only drugs and chemicals registered by the APVMA are to be used on farm and users must adhere to the Agricultural and Veterinary (Control of Use) Regulations 2007.
- Record all adverse reactions to veterinary chemicals or any unexpected treatment failures. Identify, record and notify the purchaser of any animal carrying the remains of a broken needle.
- At all times follow label directions and recommendations for treatment by a veterinarian.

### **Monitoring and records**

- Antibiotic and inhibitory substance screening tests in all milk tankers at factory receipt and random screening on meat.
- Trace-back for all types of chemical residues from tests on dairy products and meat.
- Records of drug/chemical usage are to include:
  - Date of use.
  - Who applied the preparation?
  - What chemical /drug was used (trade name).
  - Number of cow/area treated.
  - Withholding period required.
- Mastitis Treatment Record (all treatments every time including treatments with nil withhold periods).
- Stock Treatment Record (all treatments every time including treatments with nil withhold periods).
- Drug and Agricultural Chemical Purchase invoices.
- Dairy Shed planners and notice boards for treatments.

## 4. Livestock health, mastitis and welfare

### Hazards

- Breaches of welfare requirements of farm animals may affect markets due to customer concerns.
- Veterinary medicines may cause residues in milk and meat if used incorrectly. This will result in loss of market confidence and endanger the health of consumers. They may also interfere with the processing of dairy products.
- Water supplied to livestock can contain toxins, taints and odours and pathogenic and spoilage micro-organisms which could affect animal health or milk safety and quality.
- Some livestock diseases (zoonosis) and livestock treatments can affect the health of farm staff, other livestock and the farm ecosystem.
- Mastitis causes high levels of Bulk Milk Cell Counts (BMCC) in milk and this can:
  - Cause downgrading of milk and manufactured product.
  - Be associated with incidence of pathogens and toxins in milk products.
  - Can lead to udder damage and a reduction in milk yield and composition.
  - Reduce shelf-life of packaged milk and also result in spoilage of milk.
  - Directly impact on poor manufacturing properties and reduced product yields.

### Standard

- Milk shall only be harvested from healthy cows, (milk must be isolated from cows where there is potential for infectious disease to transfer to humans).
- Mastitis to be controlled such that Bulk Milk Cell Count (BMCC) is below the acceptance standard as described in the Bega Cheese Supplier Handbook, in this regard Bega Cheese has a policy of continuous improvement.
- **CRITICAL.** No antibiotic failures from mastitis treatments.  
Note: A positive antibiotic rejection by Bega Cheese will result in a suspension of Bega Cheese On Farm Quality Accreditation. State Food Authorities will be notified of the positive result and an audit will be undertaken.
- All people responsible for the care and management of livestock to be trained in their responsibilities.
- The Food Standards Code (which describes the standards for milk) specifies that milk must be harvested from healthy cows. To ensure this:

- No evidence of preventable disease in stock and disease incidences to be controlled as soon as identified.
- Stock water to be of the best available quality and free of undesirable taints, odours, chemicals, algal toxins, pathogenic micro-organisms that might jeopardise the chemical residue status, safety or quality of milk and meat or the health of livestock.
- Bega Cheese customers expect that milk is humanely harvested from healthy cows, using good husbandry practices that improve the welfare of cattle on supplying dairy farms. The Australian Code of Practice for the Welfare of Animals – ‘Cattle’ stipulates minimum animal welfare standards for cattle production. The Farm Manager must have read a current copy and comply with these standards.
- Bobby calves must be managed with care. Sound animal husbandry practices and management systems are the key to delivering bobby calves’ welfare and ensuring they are fit for sale. Suppliers to Bega Cheese must comply with all animal health and welfare standards.
- Where the cause of a Sudden Death of livestock is suspected from Anthrax or any other significant disease suppliers are to notify the DPI and the factory immediately. Do not move the animal.
- No Zoonotic infections (eg Leptospirosis)

#### **Monitoring and records**

- Bulk Milk Cell Counts (BMCC) for Bega Cheese suppliers are carried out for every pick-up. Suppliers are notified of the results. Farm managers are responsible for monitoring these results. In addition, suppliers with BMCC results out of specification are notified when these results are identified.
- File BMCC results.
- All milk tankers at factory receipt are screened for antibiotic and inhibitory substances.
- Notifications may be issued to farmers following trace-back for all types of chemical residues from tests on dairy products and meat.
- Maintain stock treatment records.
- Maintain mastitis treatment records.
- Water test results if required.
- Dairy Shed planners and notice boards.

# 5. Livestock feeding

## Hazards

- Residues of agricultural chemicals and other undesirable substances can be transferred to milk and the meat of slaughter animals through contaminated stockfeed, stockfeed additives and forage feed.
- Some crops, pastures, weeds and forages can taint milk or are toxic to livestock.
- Forage can contain plant and fungal toxins and pathogenic microbial contamination.
- Mammalian materials are not permitted for use in the feeding of cattle due to the risks to the export markets (European Union) and risks to livestock of contracting a cattle disease such as Bovine spongiform encephalopathy (BSE) more commonly known as Mad Cow Disease.

## Standard

- Avoid the contamination of milk and meat animals with chemical residues, GMO feedstuffs, mammalian-derived feed material, toxins, feed derived milk taints and other undesirable substances derived from stockfeeds and additives.
- All stockfeed that has been treated to be out of the chemical treatment withhold period before being fed.
- A system must be in place to ensure that the use of effluent on paddocks does not pose a food safety risk. Sludge sprayed directly on paddocks must be withheld from grazing for 21 days, whilst effluent applied via irrigation requires a 14 day withhold from grazing.
- All feed to comply with regulatory standards for stock feeds.
- All feed and forage to be free or have controlled levels of suspect mould, toxic levels of toxic plant material and tainting plants.

## Mammalian material

- No meat, offal or rendered tissue (such as meat meal, meat and bone meal, bone flour or blood meal) is to be fed to cattle.

## Genetically modified organisms

- The use of genetically modified organisms (GMO) such as pastures, forages, grains or any other genetically modified product by suppliers is unacceptable by Bega Cheese manufacturing standards. The maximum allowed GMO and GMO Standard is described in the Bega Cheese Supplier Handbook

## **Monitoring and records**

- Supplier Grain and Fodder Declaration Forms specifying the chemical treatments and withhold periods of the stockfeed are to be supplied with each batch of stockfeed purchased. Where feed is supplied from the one stockfeed vendor, a 12-monthly declaration is adequate provided the supplier is FeedSafe® or Fodder Care® accredited. Each new supplier of stockfeed is required to provide a vendor declaration.
- Farmers to maintain a paper trail for trace-back via delivery dockets and invoices and bag batch labels and feed specifications.
- Maintain paddock and stored grain treatment records for all treatments at all times.
- Maintain application records of effluent to paddocks.
- Mixing instructions for home mixed feeds with additives to be displayed.
- Samples of feed to be taken and tested in cases where residue status of the feed is in doubt.
- Sample(s) taken (or retained) as required and tested for toxins or other undesirable agents, if considered necessary.
- Sprayed paddocks to be clearly marked and a farm map made available to all staff.

## 6. Dairy cleaning and milking practices

### Hazards

- Poor cleaning will result in bacterial growth within the plant and milk stone/fat build up which can be a source of bacterial contamination of raw milk. This cause's milk spoilage, product downgrades and shortened shelf life of manufactured products.
- Factors affecting cleaning efficacy include:
  - Washing water volumes.
  - Detergent dose rate and operating temperature.
  - Hot water temperature (dairy/plant exit temperature of hot water not lower than 65°C).
  - Mechanical water agitation and duration (contact time).
  - Washing water quality and hardness.
  - Milking practices and cleanliness.
  - Dairy maintenance.
- Poor milking practice is a critical factor affecting the incidence of mastitis.
- In-efficient milking management increases animal stress and decreases milk yields and is a major factor contributing to bacterial and physical contamination of milk.
- Physical contamination of milk with sediment and foreign matter increases the risk of bacterial contamination of milk and indicates poor milking practices and in turn increases the cost of processing and may cause downgrading of product.
- Failure to follow milking procedures is a major factor in milk contamination, accidental contamination of milk by antibiotics or other inhibitory or veterinary substances and milk downgrades. Documented milking procedures help ensure this does not occur.
- The inclusion of colostrum in milk causes:
  - Downgrading of milk and effects milk colour, smell and taste.
  - Poor flavour, texture and keeping quality of cheese, butter and short shelf life products.
  - Impaired solubility of milk powders.
  - Cleaning problems in processing equipment.

### Standard

- To produce milk that records the lowest possible bacteriological contamination related to dairy hygiene and cleanliness. This is as measured by bacteriological testing limits as set by Bega Cheese and its customers. Food safety authorities also set maximum levels.

- To achieve this suppliers are to:
  - Display a documented 'Cleaning schedule' and directions for use of detergents and sanitisers in the dairy.
  - Use only registered products that are suitable for purpose (as per label).
  - Always have a clean milking area and clean external equipment surfaces.
  - Cleaning and sanitation agents are to be appropriately labelled and stored (see Sec 2.3).
  - Ensure dairy water standard is E. coli <1 per 100 ml, Coliforms<10 per 100 ml, SPC<1000 per ml.
  
- Only APVMA approved chemicals can be used. All chemicals must be suitable for their intended purpose and used in accordance with manufacturers instructions. All chemicals must be labelled with an appropriate APVMA or NRA approval number.
  
- Suppliers are to have NO RESIDUE VIOLATIONS in milk and to minimise contamination of milk with sediment and other foreign matter. To achieve this suppliers are to have milking practices that ensure:
  - Treated cows are withheld so NO ANTIBIOTIC or chemical residue violations occur.
  - Colostrum milk is excluded from supply for 8 milkings (or 10 milkings for cows that have been induced). Maximum allowable level is less than 0.3% of immunoglobulin.
  - There are no adverse sediment results.
  - Milk is free of abnormality (blood or clinical mastitis).
  - Udders and teats are free of detectable health problems.
  - Cows are not agitated or stressed during milking.
  
- AND these milking practices are documented and DISPLAYED at the dairy including vat wash instructions for tanker drivers.
  
- The frequency of monitoring for the Hygiene and Maintenance Checks is TWICE PER ANNUM and additionally as required under a major bacteriologic quality failure.
  
- 'As required' means, that for every major bacteriologic quality failure the farm must complete and record a hygiene and maintenance check.
  
- Water used for dairy plant and animal cleaning purposes must not jeopardise food safety or milk quality.

### **Monitoring and records**

- Bega Cheese monitors all milk tankers for out of specification bacterial contamination. Where a tanker is out of specification all farms on that collection run are tested:
  - Sediment tests are conducted by Bega Cheese.
  - All suppliers are regularly tested and notified of bacteriological counts and bulk milk cell counts.
  - Farmers are issued with milk quality advice.

- Hygiene and maintenance checklist must be completed as required.
- Notification of milk quality is by daily tanker dockets and contact will be made by Bega Cheese staff should quality parameters be breached.



# 7. Maintenance of dairy, refrigeration, equipment and environment

## Hazards

### Refrigeration

- Bacterial growth is minimised if milk is cooled quickly and stored at temperatures at or below 5°C.
- Poor milk vat temperature control and calibration can result in rapid and uncontrolled bacterial growth and increased bacteriological counts and milk spoilage.
- Milk quality can be affected when milk is frozen.
- Milk cooling towers can be a health hazard if poorly managed.

### Milking plant

- Poor milking plant performance results in:
  - Increased mastitis and teat damage and higher Bulk Milk Cell Counts.
  - Increased milking times can lead to stress on staff and cows and reduced milk production.
  - Poorly maintained dairy equipment can result in bacterial contamination of milk and activation of milk lipase, which causes milk fat breakdown.

### Shed and surrounds

- Clean, tidy and rubbish free dairy and surrounds reduces opportunity for external contamination of milk.
- Milk can be tainted by odours from the shed environment.
- Poor maintenance can affect the safety of the workplace for harvesting and collection of milk.
- Rubbish harbours rodents and vermin, which are a source of human and animal pathogens.
- Bega Cheese customers can see and potentially visit supplying dairies and their attitudes are important to the security of the market place and milk income.
- Provide milk tankers, feed trucks and other vehicles safe and unrestricted access to the dairy.
- Non milking animals are to be segregated from the dairy and surrounds to reduce the potential for milk contamination.

## **Dairy effluent**

- Poorly managed Dairy Effluent can pollute the environment and is a risk to milk quality and cow health.
- Bega Cheese requires suppling farms to manage dairy effluent responsibly and supports Industry endorsed programmes.

## **Standard**

- It is a requirement to have a minimum of a 'B-rating' dairy building.
- Milk plant performance must meet ISO Standards.
- Australian Standard for milk refrigeration must be complied with.
- Harvested Milk cooled to 5°C within 3½ hours from the start of milking or not exceeding 5°C by two hours, 21 minutes from the completion of milking.
- Thermometer must read within  $\pm 0.5^{\circ}\text{C}$  of temperature by standards thermometer.
- Thermostat cut-in at 4°C and cut-out before freezing.
- For farms with pre-cooling, exit milk temperature within 2–3°C of the pre-cooling water.
- To ensure dairy effluent is contained on the property and the system complies with industry standards. See Dairy Waste Management Industry Guidelines.
- Use only food grade and corrosion resistant materials in milking plant.
- Guidelines for water cooling towers must be complied with.
- Vats with top opening lid or inspection hatch are to be covered with a roof.
- Breathers on vats must be screened to exclude pests.
- Swing lid vats must be in an enclosed pest proof room or have the ability for the lid to be secured.

## **Monitoring and records**

### **Refrigeration**

- Milk vat temperature observations by milkers at the beginning and finish of milking.
- Milk pickup temperature checks are automatically made, recorded and a notification left at the dairy by the bulk milk tanker operator at pick-up. Pickup notice is to be checked by the milker for each pick-up.
- Hand held farm thermometers are calibrated at least annually.

- The following checks carried out at least twice per year or more regularly or as required by Bega Cheese:
  - Vat cooling time.
  - Temperature of thermostat cut-in.
  - Temperature of thermostat at cut-out.
- Required annual refrigeration system maintenance by technician and report supplied.
- Recommend a six monthly check for system leaks, faults and general condition of system.

#### **Dairy surrounds and milking plant**

- It is required that a qualified technician undertake milking plant performance test at least once annually and supply a detailed report.
- Inspection of shed, dairy surrounds and tanker access as per the Hygiene and Maintenance Checklist at least twice per year and as required. (A shed inspection report is in the attached reference material).
- If a cooling tower is in place that requires registration then a risk management plan needs to be in place.

#### **Dairy effluent**

- Dairy effluent disposal monitored daily and the effluent application area to be quarantined for a minimum of 21 days for direct sludge application and 14 days for irrigation application before grazing.
- Daily monitoring of operation of effluent system.



## 8. Managing quality assurance (training, records, audits, corrective actions)

### Hazards

- Untrained and or incompetent staff and contractors pose a risk to product quality and safety.
- The integrity, consistency and relevance of the quality system will be compromised if there is a lack of quality records, no farmer self-audits and corrective actions, or the quality programme is not independently audited and verified. This will lead to inferior continuous improvement and or inconsistent milk safety and quality.

### Standard

- Staff are adequately trained in all aspects of the quality programme related to their work.
- The minimum training standard for users of farm chemicals is to have completed or be supervised by staff who have completed an approved 'Farm Chemical Users Course'.
- Farm manager to annually review the quality system, record and correct non-conformances, check records, complete a Farmer Self-audit (Manual 4), check corrective actions and verify the system ensuring on-going compliance and continuous improvement.

### Monitoring and records

- QA Records maintained and filed.
- Maintain an "incident" reporting sheet to record non compliances and action plans to rectify (see Manual 3 – incident report and diary note sheet).
- Formal audits as determined by performance against milk safety, quality and quality programme management.
- Training (recorded in the 'Manual 3') and work instructions recorded.
- Maintain and file farm chemical authorisations.
- Complete all questions and actions in the Bega Cheese Farmer Self-audit.
- Wall charts and Instruction sheets.
- Traceability of milk is maintained through each tanker pickup docket which records milk pick up time, volume, company supplied and temperature.





