



True Quality[®] Dairy Farm

This Food Safety Programme was developed for
Dairy Farms Supplying Milk to Dairy Factories

The areas to be addressed on this dairy farm are:

- Module One Page 16 Milk Harvesting Food Safety and Quality
- Module Two Page 38 Livestock Purchases and Sales
- Module Three Page 40 Staff Training
- Module Four Page 41 On Farm Requirements

4th February 2010

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<h2 style="margin: 0;">RECORD FOR AMENDMENTS, AUTHORISATION AND ANNUAL REVIEWS</h2>

Document Name	Issue Date
1. Dairy Food safety programme	3 June 2009
• Farmer review sheet	4 February 2010
2. Overview of True Quality® Dairy Farm	13 August 2008
3. Documentation	13 August 2008
	3 June 2009
4. Control of Operation	
• Product description - raw cows' milk	13 August 2008
• Product description - meat/livestock	13 August 2008
5. Process flow diagram	13 August 2008
6. Introduction to Farm	13 August 2008
• Property details	3 June 2009
7. Company Overview	13 August 2008
• Staff responsibilities	
8. Farm – Map Plan	13 August 2008
9. Traceability of Milk from farm	3 June 2009
10. Herd Register	3 June 2009
11. Health of Milking Personnel	3 June 2009
• Infectious Disease Register	3 June 2009
• Personnel Hygiene Practices	3 June 2009
12. Milking Practices	3 June 2009
Module One - Milk Harvesting Food Safety and Quality	13 August 2008
• Cattle feed	3 June 2009
• Pesticides and antibiotics	3 June 2009
• Milking machine cleaning and sanitising	3 June 2009
• Animal identification	13 August 2008
• Handling and storage of milk on farm	3 June 2009
• Animal treatments-diseased, sick animals	3 June 2009
• Agricultural chemicals	3 June 2009
Module Two – Livestock Purchases and Sales	13 August 2008
	3 June 2009
Module Three - Staff Training and Skills and Knowledge	13 August 2008

3 June 2009

Module Four – On Farm Requirements

- Water quality
- Stock water
- Reclaimed water
- Effluent management
- Equipment maintenance programme
- Design, construction, maintenance, of dairy Premises
- Pest control
- Calibration thermometers
- Industry Endorsed Elements

13 August 2008

3 June 2009

3 June 2009

3 June 2009

3 June 2009

3 June 2009

3 June 2009

3 June 2009

3 June 2009

20 January 2010

Records	Page 56	Maintenance Records	13 August 2008
	Page 57	Problems/Issues Record	3 June 2009
	Page 58	Herd Management Records	3 June 2009
	Page 59	Milk and Hot Water Temperature	3 June 2009
	Page 60	Staff Training Records	13 August 2008
	Page 61	Paddock Records	3 June 2009
	Page 62	Stockfeed Additives	3 June 2009
	Page 63	Stockfeed Purchases	13 August 2009
	Page 64	Stockfeed Fodder, Hay, etc	3 June 2009
	Page 65	Stockfeed Supplier Declaration	13 August 2008
	Page 66	Monthly Hygiene Checks	3 June 2009
	Page 67	Diseased, Treatment Record	3 June 2009
	Page 68	Working Thermometer Record Ice	3 June 2009
	Page 69	Pesticide, Herbicide, Insecticide Record	20 January 2010

Appendix One	Page 70	Description of Terms	13 August 2008
			3 June 2009

Authorised by: David Harman

Date: 4th February 2010

1. DAIRY FOOD SAFETY PROGRAMME

This Food Safety Programme is written within the specifications out lined in:

- Dairy Food Safety Victoria – Code of Practice of Dairy Food Safety September 2002 (DFSV)
- Primary Production and Processing Standard for Dairy Products Standard 4.2.4
- Agricultural and Veterinary Chemicals (control of use) Regulations 2007
- ANZDAC - Guidelines for Food Safety Dairy Farms 2006

Introduction

The owner of a dairy farm is responsible for ensuring that milk intended for sale, whether it be cow, goat, sheep or buffalo:

- A. Is produced in accordance with a Food Safety Programme described in section 3.2 of (DFSV)
- B. Meets the standards described in section 3.3 of (DFSV)

Non-compliances with the Food Safety Programme, or this code or other regulatory requirements must be investigated to determine the root cause. Action must be taken to correct the non-compliance and to prevent a recurrence of the non-compliance.

AsureQuality Limited as owners of this Food Safety Programme will review the programme on a yearly base to ensure that it meets all new standards and that the programme is effective. All reviews will be documented on page 2 under (Record for Amendments, Authorisation and Annual Reviews)

Farmer users of the Food Safety Programme must also review this programme to ensure its continuing effectiveness. Any changes must be documented in their copy of the Food Safety Programme.

The following sheet can be used to help under take the review; any non-conformances must be attended to and recorded on the PROBLEM RECORD NON-CONFORMANCE form.

REVIEW UNDER TAKEN 2010 YEAR

AREA REVIEWED	DATE OF REVIEW	COMPLAINT		ACTIONS TO COMPLY	REVIEW PERSON
		YES	NO		
DRUG TREATMENTS					
Procedure Documented					
Records					
Separation treated animals					
Storage					
Expiry Dates					
Approved Drugs					
ANIMAL ID					
Recorded					
All animals have ID					
PLANT, VAT CLEANING					
Documented					
Approved chemicals					
Hygiene checks					
Problems					
MILK COOLING					
Temperature Records					
Problems					
Maintenance					
MILK GRADING					
Problems recorded					
Actions taken					
MILKING PERSONAL					
Hygienic practices					
Health of personnel					
PREMISES & EQUIPMENT					
Problems recorded					
Clean and sanitary					
Correct operation					
Maintenance					
STOCKFEED / FODDER					
Supplier Declarations					
Recorded					
Additives					
STOCK PURCHASES					
Recorded in Herd Register					
Declarations					
STOCK AGISTMENT					
Recorded					
Declarations					
CHEMICAL TREATMENTS					
Records for					
Pasture / Crops / Stored Grain					

REVIEW UNDER TAKEN 2011 YEAR

AREA REVIEWED	DATE OF REVIEW	COMPLAINT		ACTIONS TO COMPLY	REVIEW PERSON
		YES	NO		
DRUG TREATMENTS					
Procedure Documented					
Records					
Separation treated animals					
Storage					
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Approved Drugs					
ANIMAL ID					
Recorded					
All animals have ID					
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Documented					
Approved chemicals					
Hygiene checks					
Problems					
MILK COOLING					
Temperature Records					
Problems					
Maintenance					
MILK GRADING					
Problems recorded					
Actions taken					
MILKING PERSONAL					
Hygienic practices					
Health of personnel					
PREMISES & EQUIPMENT					
Problems recorded					
Clean and sanitary					
Correct operation					
Maintenance					
STOCKFEED / FODDER					
Supplier Declarations					
Recorded					
Additives					
STOCK PURCHASES					
Recorded in Herd Register					
Declarations					
STOCK AGISTMENT					
Recorded					
Declarations					
CHEMICAL TREATMENTS					
Records for					
Pasture / Crops / Stored Grain					

2. OVERVIEW OF TRUE QUALITY® DAIRY FARM

True Quality® Dairy Farm is a food safety and quality management programme designed for dairy farmers. It uses current 'good farm management' practices and offers an independent assessment with certification to a recognised standard.

True Quality® Dairy Farm demonstrates your commitment to quality and food safety. It recognises current industry and farm practices and integrates with your current management practices.

True Quality® Dairy Farm can also assist you with the training and management of farm staff.

Certification to True Quality®

True Quality® Dairy Farm means following good management practice, to produce a food that is both of good quality and safe for the consumer. Assessment for meeting the standards of True Quality® Dairy Farm will include a desk audit of your records and ensuring that the dairy shed, milking plant, equipment and surrounds conforms to the True Quality® Dairy Farm standard.

The dairy shed and surrounds must be maintained in a condition which will minimise the potential spoilage or contamination of the milk at all times.

- after milking keep the yards clean and free from manure
- keep the milking shed and equipment clean and well maintained
- ensure cleaning chemicals, agricultural and veterinary chemicals are stored to prevent possible contamination of the milk supply and/or access by children (sealed containers or dedicated storage areas)
- chemical containers should be clearly labelled to prevent incorrect use; veterinary chemicals should be stored in conditions as listed on the packaging and any products outside of their use-by date must be disposed of
- only those chemicals used in the production or manufacture of milk and the cleaning and sanitising of buildings and equipment used in the production of milk and other produce (livestock) can be stored in the milking shed
- ensure that the disposal method of dairy shed waste minimises contamination of natural water courses in the area and must not contaminate milk

3. DOCUMENTATION

Document approval and issue

- The True Quality® Dairy Farm documentation, including procedures and quality related forms, are approved for issue by AsureQuality. This is done by using an authorisation and amendment list maintained by AsureQuality
- Amendments for the True Quality® Dairy Farm are issued to you via your factory field officer
- The control of the True Quality® Dairy Farm programme is coordinated by the property manager
- If new copies of the record forms are needed - photocopy a master copy when needed; the master forms are available from your factory field officer

Document changes

- When changes are required to the documentation, including modules and forms, amendments will be issued by AsureQuality and the manager of the dairy farm must:
 - a) remove all obsolete forms from the True Quality[®] Dairy Farm manual
 - b) destroy all obsolete forms and procedures
- If operating procedures change greatly over the year - i.e. cleaning programme, dairy company supplied method of operation - please notify your dairy company who will then contact AsureQuality to register these changes. Amendments to your True Quality[®] Dairy Farm manual will then be issued by AsureQuality via your factory field officer reflecting these changes to your operating conditions.

Records

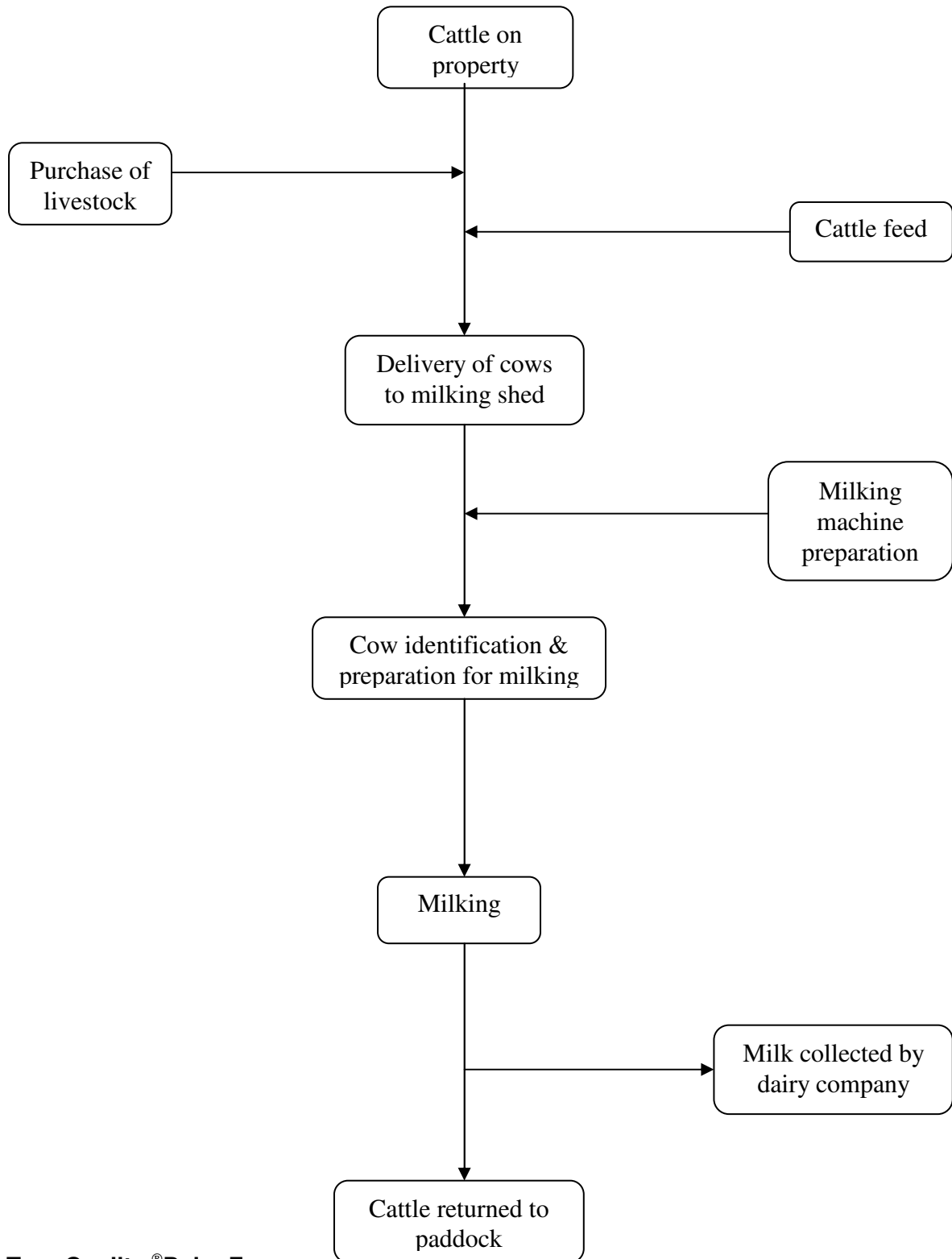
- It is important that you maintain all the records required for this programme
- Keep all records in the filing case provided for easy retrieval when required, for example your system reviews by your AsureQuality consultant or for your own reference (except if you have chosen to maintain the programme on computer)
- The key records to be maintained for True Quality[®] certification are referenced throughout True Quality[®] Dairy Farm manual
- Records should be maintained for a minimum period of 24 months.

4. CONTROL OF OPERATION

PRODUCT DESCRIPTION	
Product Name	Raw Cows' Milk
Product Characteristics	Unpasteurised - used for further processing
Intended Use of the Product <ul style="list-style-type: none"> • Normal use of the food? • Who will consume? • Keep refrigerated, heat before serving? 	<p>To supply milk to factories for processing into consumable products; milk must be heat treated prior to processing</p> <p>Milk must be cooled to less than 5°C within 3½ hours of the start of milking</p>
Packaging	N/A
Shelf Life	N/A
Labelling Instructions	N/A
Distribution Conditions <ul style="list-style-type: none"> • Retail or Food Service? • Storage Conditions 	<p>Raw milk to be protected at all times from conditions that may allow contamination or cause spoilage or tainting of the milk</p> <p>Milk must be kept refrigerated at all times until further processing (at less than 5°C)</p>

PRODUCT DESCRIPTION	
Product Name	Meat / Livestock
Product Characteristics	Animals should be free of agricultural and veterinary chemicals when sold Disease status of stock should be known e.g. Johne's disease, EBL
Intended Use Of The Product <ul style="list-style-type: none"> • Normal use of the food? • Who will consume? • Keep refrigerated, heat before serving? 	To supply dairy animals to other dairy herds To supply abattoirs with animals for slaughter Milk and meat from these animals should be free or below the Maximum Residue Levels (MRLs) for agricultural and veterinary chemical residues
Packaging	N/A
Shelf Life	N/A
Labelling Instructions	<ul style="list-style-type: none"> • All animals must be accompanied by a Vendor Declaration that lists all animal health treatments used in the six weeks prior to sale • All cattle sold from a property, must bear an approved tag identifying the property of origin. A tail tag is normally used but tail docked cattle must have an ear tag • The tags usually white but in cases where the vendor is able to document that particular cattle have NEVER been treated with HGP's (hormonal growth promotants) a pink tag may be used • Bobby calves sold from dairy farms must be identified by special calf ear tags • Animals brought into Victoria from interstate must be permanently identified e.g. ear tag, freeze brand, tattoo and must be accompanied by documentation of origin • <i>NOTE: Check details with current legislation; contact local department of agriculture, stock agents and private practitioners</i>
Distribution Conditions <ul style="list-style-type: none"> • Retail or Food Service? • Storage Conditions 	Ensure animals are transported to minimise stress; if stock are to be transported for long periods of time animals may need to be rested/watered/fed; refer to relevant state Code of Practice for details

5. PROCESS FLOW DIAGRAM



True Quality[®] Dairy Farm

6. INTRODUCTION

Property Details

Name of company / owner details

Address details

Phone number

Mobile

E Mail

Fax

Name of manager _____

Address details

Phone number

Mobile

Email

Fax

Dairy company supplied _____

Licence number _____

Property Identification Number {PIC} _____

Person/s with overall responsibility for implementing this Food Safety Programme on farm

Name _____
Signature _____
Date _____

Person/s with overall responsibility for signing off non-compliances for this Food Safety Programme

Name _____
Signature _____
Date _____

Name _____
Signature _____
Date _____

All non-conformances must be recorded on PROBLEM RECORD and signed off

Herd size _____

Shed type _____

Number of operator's _____

Number of relief milkers (if applicable) _____

Special operating considerations e.g. animal health issues, organic farming, irrigation, run a beef herd

Herd management system e.g. computer based

7. COMPANY OVERVIEW

Staff responsibilities

Name
Duties

Name
Duties

Name
Duties

Name
Duties

8. TRACEABILITY OF MILK PRODUCED ON FARM

Records must be kept for all milk that leaves the dairy. These records must include:

- A. Date and time milk leaves the dairy
- B. Name and address of milk recipient (dairy transport business)
- C. Volume of milk at collection

The dairy primary production business monthly farmer payment advice and quality report and tanker pick up charts may be used to collect some of the required information.

9. FARM-MAP PLAN

Copy of Farm Map-Plan must show layout of paddocks numbered, sheds, laneways, races, water ways, effluent ponds or paddocks, water storage.

A copy of the Farm Map-Plan can be found _____

10. HERD REGISTER

All farms will maintain a Herd Register; this can be paper, electronic or Herd Testing Company System.

Information required

- Identification and Herd Register number
- Sire and dam
- Date of birth and or arrival date on farm

11. HEALTH OF MILKING PERSONNEL

INFECTIOUS DISEASE REGISTER

To ensure the safety of raw milk supplied, any milker diagnosed, suspected, or a known carrier of an infectious disease or suffering from a food safety related illness, where there is a reasonable likelihood of milk contamination, must have no contact with raw milk or cows producing milk.

It is very important that all farm staff are aware of this requirement.

They must have no contact with raw milk or cows currently being milked until declared free of infectious disease or illness by a doctor.

The details of the illness must be recorded and kept on file.

Infectious diseases are prescribed in the Health (Infectious Diseases) Regulations 2001.

PERSONNEL HYGIENE PRACTICES

Adequate sanitation and employee practices must prevent contamination of milk with undesirable or pathogenic microorganisms.

Hand washing facilities; basin, running water and soap should be at the dairy.

The dairy should have a documented personal hygiene programme.

12. MILKING PRACTICES

Milking must be carried out in a manner that will prevent the microbiological, chemical and physical contamination of milk.

From the following sources:

- Milking personal – through good hygiene practices
- Milking equipment – through proper operation, cleaning and sanitation
- Animal – through proper cleaning and sanitation

Module One – Milk Harvesting Food Safety and Quality

Module One Milk Harvesting highlights 'FOOD SAFETY and FOOD QUALITY' areas of concern where potential problems may arise with milk harvesting on the dairy farm and that will need to be controlled by the farmer.

1. CATTLE FEED

- stockfeed suppliers declaration
- pesticides in the feed supply
- herbicide in the feed supply
- recording

2. PESTICIDES AND ANTIBIOTICS

- in purchased animals
- vendor declaration forms
- recording

3. MILKING MACHINE CLEANING AND SANITISING

- plant and vat cleaning programmes
- monthly hygiene checks
- bacterial growth in the milk supply
- cleaning chemical residues in the milk supply

4. ANIMAL IDENTIFICATION

- system to be used

5. HANDLING AND STORAGE OF MILK ON FARM

- milk temperature control
- vat break downs
- bacterial growth
- extraneous matter (sediment) in the milk supply
- chemical residues (cleaning) in the milk supply

6. ANIMAL TREATMENTS – DISEASED, SICK ANIMALS

7. AGRICULTURAL CHEMICALS

1. CATTLE FEED

To prevent contaminated milk meat and animals leaving the farm

The farmer (operator) must ensure that all feed used on the farm is free from pesticide and herbicide residues, and microbiological hazards and does not contain meat meal or fish meal.

Chemicals in feed may be due to fumigants used to treat feed in storage silos to control vermin and insect pests.

Don't feed mouldy stockfeed to your milking cows - these may contain fungal toxins which can be transmitted to the milk.

Chemical residues in feed may concentrate in animals if the feed is eaten by livestock.

Microbiological hazards may come from effluent on pasture, previous use of paddocks, neighbouring properties e.g. spray drift.

All animal feeds including pasture given to milking animals must not present a risk of introducing, directly or indirectly, microbiological or chemical hazards to the milk at levels that present a health risk to the consumer or lead to contaminants in excess of MRLs or MLs.

To prevent or reduce pesticide or herbicide contamination of milk the farmer (operator) must:

(A) When buying in feed –(stockfeed, pasture, silage, hay, baleage)

- Obtain a **STOCKFEED SUPPLIER DECLARATION** for the usage of any pesticides or herbicides for all batches of feed purchased.
 - The stockfeed supplier declaration should state that all feed supplied is free of chemical contamination, and/or
 - Obtain a history report of fertiliser or chemicals used on the suppliers farm (which paddocks treated, chemical used, application rate, withholding period if any)
 - All declarations must be kept
- Only purchase stockfeed from an 'approved stockfeed supplier'
- Complete details of all feed purchased on **STOCKFEED PURCHASES** record
- Note which classes of stock are fed the feed mix(es) - record details on the **STOCKFEED PURCHASES** record

Declarations must identify

1. Name of supplier
2. Description of feed
3. Date or period of supply
4. Chemical residue status
5. Any withholding period
6. Stock food must not pose a risk of contamination to milk
7. Stock food containing any material derived from any animals with the exception of tallow, gelatine, dairy products must not be fed

If a **Certificate of Analysis is supplied**, it should detail the levels of pesticides and other chemicals present in the feed - Examples of products commonly used on properties to control weeds or pests include Fusillade, Roundup, and Glyphosphate.

(B) When growing the feed on the property

- Records must be maintained of the agricultural chemicals and treatments used on the farm the following details must be recorded on either the **PADDOCK RECORD** or **PESTICIDE, HERBICIDE** record sheet form and refer to property plan.
- Date of Use;
- Who applied or administered the chemical;
- Name of chemical used;
- Rate of application or administration;
- What was treated (e.g. Paddock Number, Silo Number, etc)
- Withholding period or clearance date.

In the event of either a pesticide or herbicide contamination being detected or suspected the dairy farmer must:

- Notify the dairy company and record the details on the **PROBLEM RECORD**
- Isolate the affected stock (refer to **HERD MANAGEMENT RECORDS**)
- Determine with assistance of veterinarian, which stock classes, if any, can be fed the suspect feed
- Refer to the **PADDOCK RECORD** for chemical treatment records and stock classes run on that paddock
- Determine, with consultation between local veterinarian/dairy company/ department of agriculture/state dairy authority, what is to be done with the 'suspect' milk

Note: pesticide and antibiotic residues may be detected through your dairy company's in-house testing programme or through the State Dairy Authority's AMRA survey of farm milk supplies.

Record and keep all STOCKFEED SUPPLIERS DECLARATIONS.

2. PESTICIDE AND ANTIBIOTIC RESIDUE IN PURCHASED LIVESTOCK

The farmer (operator) must ensure that the health status and treatment history is known for all stock brought on to the property.

- To ensure that farm milk meat and animals - are free from pesticide and antibiotic residues.
- Are the animals from a property with a known pesticide residue problem e.g. DDT, DDE, Dieldrin?

To prevent purchasing livestock contaminated with pesticides, antibiotics, growth promotants or other contaminants, the farmer (operator) should:

- Obtain a **VENDOR DECLARATION** outlining any animal health treatments carried out on stock six weeks prior to sale; the animal health treatments are to be detailed - i.e. no antibiotics, pesticides or growth promotants to be present at time of purchase, product used, reason for the treatment, withholding period of the animal health treatment
- Obtain details of stock feeding history i.e. grass fed, paddock pesticide treatments, feed mixes etc and their withholding periods if applicable
- If unsure of the animal health status and treatment history purchased animals the farmer/operator should isolate animals for 6 - 8 weeks (maximum withholding period of animal health treatments) to cover the withholding periods of animal health treatments – have milk sampled and tested for residues

In the event of either a pesticide or antibiotic residue contamination being detected or suspected the dairy farmer (operator) must:

- Notify the dairy company (record details on **PROBLEM RECORD**)
- Isolate the affected stock; (refer to **HERD MANAGEMENT RECORD**); animal details should be recorded on both the **HERD MANAGEMENT RECORDS** and **PROBLEM RECORD**
- Determine which, if any, animals may be contaminated and are still on the farm - refer to **HERD MANAGEMENT RECORDS** for details on animals
- Contact the local department of agriculture veterinary officer for advice on animal management - the veterinarian may organise for livestock to be tested for residues (meat)

Note: pesticide and antibiotic residues may be detected through your dairy company's in-house testing programme or through the State Dairy Authority's AMRA survey of farm milk supplies.

Record and keep all vendor declarations.

3. MILKING MACHINE CLEANING AND SANITISING

The milk vat and milking equipment must be thoroughly cleaned to remove all contamination, disinfected, rinsed and drained after each milking and collection.

Water used for cleaning sanitising and rinsing must be disposed of in a way that does not contaminate milk or the environment.

The exterior of all milking equipment, storage vats and silos must be clean at all times and free from dust, bird lime, cobwebs etc.

A Preventive Maintenance programme must be implemented to ensure the milking equipment is free of any contamination i.e. spot checks and monthly hygiene checks.

All cleaning non-conformances found at monthly hygiene check time or any other time must be reported and rectified.

Person/s to report problems to _____

A. Detergent and Sanitising Agents

Detergents and sanitising agents used on milk contact surfaces must be suitable for use in food premises and their intended purpose and approved by National Registration Authority {NRA} and that their usage are in accordance with the manufactures instructions.

All cleaning chemicals must be; approved, labelled, handled and securely stored in original containers and disposed of so as to ensure food safety is not jeopardised.

Milk should be free from cleaning chemicals.

The risk of contaminating milk with detergents and sanitisers must be prevented.

The farmer (operator) must ensure that the milk produced on the dairy farm is produced in an environment which:

- **reduces the levels of bacteria present in the milk**
- **minimises and prevents cleaning chemicals and sanitiser residues contaminating the milk.**

B. To prevent or reduce the bacterial contamination levels of milk produced on the farm, the farmer (operator) should:

- **Clean and sanitise premises and equipment to prevent the risk of contamination of milk**
- **Have a documented plant, vat cleaning and sanitising programme to manufacture standards that are validated to ensure effectiveness**

- An on-going verification programme by checking and recording the sanitation of the milking plant and vat at least monthly by recording details on **MONTHLY HYGIENE CHECK LIST**
- Recycle Alkaline wash for both plant and vat
- Check and record hot wash contact time
- Dump hot Alkaline wash at 60 to 65 ° C
- Have a food grade quality thermometer
- Check the condition of the milking plant, vat and ensure that the rubber ware is NOT cracked or perished (record details on **MONTHLY HYGIENE CHECK LIST**)
- Check on a daily basis, and record weekly the dairy hot water temperature (record details on **MILK AND HOT WATER TEMPERATURE CHECKLIST**); your dairy hot water unit should be capable of heating water to greater than 90 ° C
- Replace worn and cracked rubber ware as required and as per manufacturer's instructions e.g. liners changed after 2500 milkings (record date on **MILKING MACHINE MAINTENANCE CHECKLIST**)
- Refer to the farm's documented **MILKING MACHINE CLEANING PROGRAMME**

In the event of increased bacterial levels in farm milk (as per farmer payment advice and quality system) the dairy farmer must:

- Check that the cleaning programme is being followed
- Check that the correct detergent strengths have been used in the dairy farm cleaning programme
- Check that the cleaning programme alternates acid and alkali detergents – (Refer to documented farm **MILKING MACHINE CLEANING PROGRAMME**)
- Check milk plant and vat for milk stone, fat, protein deposits
- Increase detergent contact times and water temperature
- Bomb clean plant (when necessary) - record date on **PROBLEM RECORD**
- Check dairy hot water temperature and the quality of the dairy water supply (record on **MILK AND HOT WATER TEMPERATURE CHECKLIST**)
- If unsure of the water quality have a sample tested for bacteria, algae, 'hardness' or alkaline levels
- Replace cracked/perished rubber ware and liners as per manufacturer's instructions (record on **MILKING MACHINE MAINTENANCE RECORD**)
- Arrange for an AMMTA qualified technician to check the milking plant if the problem persists

C. To prevent or reduce the chemical contamination of milk with cleaning chemicals the farmer (operator) should:-

- Refer to **MILKING MACHINE CLEANING PROGRAMME**
- Only use approved detergents and sanitising agents to manufactures instructions
- Rinse plant and vat with hot water 80 ° C to remove chemicals and sanitise surfaces
- Open and drain plant after washing
- At start of milking let first lot of watery milk go to waste
- Check daily for the presence of chemical residue in the milk. Record details on **PROBLEM RECORD** if chemicals are detected

In the event of a contamination of the farm milk supply being detected or suspected, the Farmer (operator) must:

- Notify dairy factory of problem (record details on **PROBLEM RECORD**)
- Secure silo/vat outlet from possible collection
- Dump milk on advice from your dairy company (record details on **PROBLEM RECORD**)
- All cleaning chemicals must be stored securely
- Review cleaning programme and up-date **MILKING MACHINE CLEANING PROGRAMME**

Cleaning Chemicals and Rates Used List:

Hot Water Capacity

There must be enough hot water capacity to provide effective cleaning of both the plant and milk storage vat.

The dairy hot water unit should be able to heat water to 90 ° C.

Recommended requirements for plant 10 L per set of cups and silo 2% of capacity.

Milking Machine and Vat Cleaning

Number of Clusters:

Alkali Detergent:

Acid Detergent:

RECOMMENDATIONS

- Plant rinsing, cold / warm water 20 litres per set of cups
- Plant washing, 10 litres per set of cups
- Hot water washing temperature – 85 ° C from cylinder
- Alkali wash followed by Acid wash
- Recycle alkaline wash, dump at above 60 ° C
- Rinse plant with hot water 80 ° C to remove chemicals and sanitise surface
- Filters on wash line suction pipes for plant and vat, to stop blockage of jettors and spray balls

PLANT CLEANING

Morning – Alkali Wash Days: Mon/ Tue/ Wed/ Thu/ Fri/ Sat/ Sun

Rinse plant with _____ litres of cold / warm water and discard to waste.

Pre-heat plant with _____ litres of hot water.

Use _____ litres of hot water and add _____ gms / mls of detergent.

Circulate for 5 minutes or until water temperature falls to 60 °C.

Add _____ gms / mls of acid detergent to _____ litres of cold or hot water and rinse plant. (Do not recirculate).

Open plant and all drain points and allow to drain and air.

Morning – Acid Wash Days: Mon/ Tue/ Wed/ Thu/ Fri/ Sat/ Sun

Rinse plant with _____ litres of cold / warm water and discard to waste.

Pre-heat plant with _____ litres of hot water (For hot wash only).

Use _____ litres of hot / cold water and add _____ gms / mls of acid detergent.

Circulate for 5 minutes or until water temperature falls to 60 °C.

Open plant and all drain points and allow to drain and air.

Evening Acid Wash

Rinse plant with _____ litres of cold / warm water and discard to waste.

Pre-heat plant with _____ litres of hot water (For hot wash only)

Use _____ litres of hot / cold water and add _____ gms / mls of acid detergent.

Rinse plant and allow wash to go to waste, no need to circulate wash.

Open plant and all drain points and allow to drain and air.

BULK MILK VAT CLEANING

Vat size is _____ litres. Vat size is _____ litres

Alkali detergent:

Acid detergent:

RECOMMENDATIONS

- Vat rinsing, cold / warm water 4% of capacity
- Vat washing, minimum of 2% of capacity otherwise 4% of capacity if no recycling
- Hot water washing temperature – 85 °C from cylinder
- Dump alkali wash water before temperature falls below 60 °C.
- Alkali wash followed by Acid wash
- Rinse milk vat with hot water 80 °C to remove chemicals and sanitise surfaces

Frequency of Acid washes to Alkali washes?

Frequency Rate: An alkali wash every time the vat is emptied / every second time the vat is emptied. (Cross out one).

BULK MILK VAT CLEANING

Rinse vat with _____ litres of cold / warm water and discard to waste.

Pre-heat vat with _____ litres of hot water.

Use _____ litres of hot water and add _____ gms / mls of alkali detergent.

Circulate for 5 minutes or until water temperature falls to 60 °C.

Add _____ gms / mls of acid detergent to _____ litres of cold or hot water and rinse plant. (Do not recirculate).

Open vat and all drain points and allow to drain and air.

FOR BOTH PLANT AND VAT

Dismantle and manually clean fittings that do not clean well automatically.

MONTHLY HYGIENE CHECK					
MONTH _____		YEAR _____			
Completed by _____			Tick box if clean or OK X if fault found		
MILKING MACHINES	TICK - X	MILK VAT	TICK - X	WASH TEMPERATURES	TEMPERATURE
Liners & pulse tubes		Inlet pipe & valve		At start of plant hot wash	
Claw & claw buttons & seals		Interior surfaces & agitator		At end of plant hot wash	
Long milk rubbers & elbows		Spray ball (no debris)		At start of vat hot wash	
Main milk line (use torch)		Outlet		At end of vat hot wash	
Receiver & airlines to sanitary trap		Seals (inlet and outlets)		MILK TEMPERATURE	
Sanitary trap & pulsator airline		Manhole door rubber		Record at first milking into vat	
Jetter cups (condition air leaks)		ARE THESE AREAS CLEAN		Last cups off	
Milk pump including seals & rubber		Milking area, yards & races		3 1/2 hours after start of milking	
Filter (top & bottom joins)		Milkroom & milk storage area		CONTACT WASH TIME	MINUTES
Plate cooler inlet (twice yearly open)		Farm dairy surrounds & environment		Plant start to finish – minutes hot wash only	
Test bucket & inside of rubber hoses				Milk vat start to finish – minutes hot wash only	

For sanitation faults X, wash and milk temperature failures, refrigeration and primary cooling failures, power failure, delayed milking etc
Please complete faults and corrective actions.

FAULTS AND CORRECTIVE ACTIONS TAKEN

DATE	FAULT FOUND	ACTION TAKEN	PERSON	DATE FIXED

4. ANIMAL IDENTIFICATION

The farmer (operator) must ensure that the farms milk/meat/animals are free from chemical or antibiotic residues and diseased or sick animals are not milked or slaughtered for manufacture.

Correct identification of treated or diseased or sick animals will ensure that the farmer (operator) can isolate any treated or diseased or sick animals and their milk from the main herd.

All stock must be permanently identified with at least two forms of ID- e.g.

- Plastic numbered ear tags
- Brass clip numbered tags
- Electronic tags
- Freeze brand
- Ear tattoo
- Other approved method

The methods of identification used on my farm:

Calves

Replacement stock

Adult cows

5. HANDLING AND STORAGE OF MILK ON FARM

A. Milk Temperature Control

Standard:

Milk must be chilled to 5°C or less within 3.5 hours from the start of milking, and be maintained at that temperature until collection.

The on farm milk storage cooling system must be validated to determine its effectiveness in complying with the cooling standard.

PROCEDURE:

- Daily check the milk temperature in vat 3.5 hrs after the start of milking.
- If above 5°C then investigate reason why temperature is high (record on **PROBLEM RECORD**), findings and action taken.
- Once a week record temperature of milk in vat 3.5 hrs after the start of milking on (**MILK TEMPERATURE CONTROL RECORD**), also check tanker collection chart for past week to see that milk temperature at collection time complies with standard.

MILK TEMPERATURE CONTROL RECORD SHEET

DATE	TEMPERATURE	TIME	PERSON	ACTIONS NON-CONFORANCES
03.08.09				
10.08.09				
17.08.09				
24.08.09				
31.08.09				

All non-conformances must be recorded on the PROBLEM RECORD and must be closed off.

The farmer (operator) must ensure that the milk produced and stored on the dairy farm is produced in an environment which:

- Complies with milk cooling standards
- Reduces the levels of bacteria present in the milk
- Reduces the presence of extraneous matter (sediment) present in the milk
- Minimises and prevents cleaning chemical residues contaminating the farm milk

To minimise the growth of bacteria while in storage the farmer (operator) should:

- Ensure that the milk is cooled to 1 - 5°C within 3.5 hours of the start of milking
- Check the milk vat temperatures daily
- Have the milk vat(s) serviced once per year (record details on **MILKING MACHINE MAINTENANCE RECORD**)

In the event of a problem e.g. vat breakdown, power cuts in the area, the farmer (operator) must:

- Notify the dairy factory processor and transport company immediately of any vat breakdowns
- Investigate cause and record findings for the failure, if known, e.g. heat, dust and rain thermostat setting, poor per milk cooling
- Organise for a refrigeration mechanic to repair, service the vat ASAP
- Record details on **PROBLEM RECORD**
- Ensure the bulk milk vat thermostat is working correctly - check and record vat temperatures also refer to TANKER PICK UP CHARTS for collection temperatures
- Milk vat(s) should be routinely serviced once a year (record details on **MILKING MACHINE MAINTENANCE RECORD**)

B. Extraneous Matter (Sediment)

To reduce the amount of sediment in the milk supply the farmer (operator) should:

- Ensure that all milk is filtered
- Ensure that a new, correctly sized milk filter is used at each milking - throw out old milk filter socks
- **DO NOT** re-use filter socks unless of a type specially designed for this purpose
- Review cow preparation for milking - strategic washing and drying of visibly dirty teats prior to milking
If dry and dusty then brush off. If wet and muddy, wash and air dry udder before cups put on.
- Ensure vat is thoroughly washed and rinsed before using
- Check the bottom of vat after milk is pumped out for sediment (record details on **MONTHLY HYGIENE CHECK**)
- Record any major sediment problems on **PROBLEM RECORD**
- Keep milk room doors closed to prevent unauthorised access e.g. by birds, pests
- Remind all staff to keep vat lid(s) closed
- Check the farm for problems with damaged farm tracks, boggy or flooded areas and repair these; clean dirty feed pads
- Retrain operators on cow preparation for milking record **STAFF TRAINING**

In the event of a sediment problem the farmer should:

- Check on the condition of the filter sock (has it burst etc) and change the size and type of the filter sock needed for the herd's production
- Record details on **PROBLEM RECORD**
- Determine and repair the source of the problem i.e. boggy paddocks, flooded paddocks, poor condition of farm tracks, dirty feed pads etc

C. Cleaning Chemical Residues

- Ensure that milk line is disconnected from the vat before milking machine cleaning
- Check for the presence (e.g. smell, colour) of chemicals in milk and vat
- Drain plant after cleaning
- Let first milk water go to waste at start of milking

In the event of detected or suspected chemical residues contaminating the farm milk supply, the farmer (operator) must:

- Notify dairy factory of any problems (record details on **PROBLEM RECORD**)
- Secure Silo/Vat outlet from possible collection
- Dump milk under advice from dairy company
- Review cleaning programme (update **MILKING MACHINE CLEANING PROGRAMME**)

6. ANIMAL TREATMENTS AND DISEASED SICK ANIMALS RECORDING

You must clearly identify, isolate and keep records when:

- An animal is diseased or sick
- An animal is being treated with a veterinary medicine or homeopathic treatment
- An animal is showing evidence of infectious disease
- The record of treatment or disease must be made within 48hrs after treatment or isolation
- Records must be retained for two years
- All veterinary chemical use must be recorded , regardless of whether the chemical has a milk withhold period

Agricultural and Veterinary Chemicals (Control of Use) Regulations 2007

Dairy farmers must meet the following requirements under the above Regulation.

Traceability of Agricultural and Veterinary Chemicals use.

All Agricultural and Veterinary Chemicals used must be recorded, regardless of whether the chemical has a milk withholding period.

Records of use of veterinary chemicals products

The user of a veterinary chemical product must, within 48 hours of using that product, make an accurate written record of-

- (a) the trade name of product
- (b) the species and location of the animal
- (c) any identification number or description of animal
- (d) the date on which the animal was first treated
- (e) the date of each subsequent treatment of the animal
- (f) the quantity of the product used for each treatment

Records must be retained for two years.

Records must be filled out within 48 hrs of use.

Treated and diseased animals must be identified, segregated and milked last. Their milk cannot be sent to the factory.

A record of all treatments must be made.

All veterinary chemicals must be purchased from approved sources and registered by {Australian Pesticides and Veterinary Medicines Authority}, be suitable for intended use and used under veterinarian's written instructions and as per label.

All drugs must be securely stored, ideally under lock.

Only drugs that are within the expiry date and are labelled can be used or stored in the Farm Dairy.

Milk from animals that have been treated with antibiotics or other veterinary drugs must not contain residues at levels exceeding the Maximum Residue Level (MRL), as specified in Standard 1.4.2 of the Australian New Zealand Food Standard Code – Volume 2 (ANZFA.2000)

Milk contaminated with residues exceeding the MRL must be managed in an environmentally responsible way and must not contaminate the food chain.

Milk which may contain residual of antibiotics and veterinary drugs are not sent for processing.

Milk that does not comply with the above must not be sold for human consumption.

VETERINARY MEDICINES used on farm

Mastitis Treatments, Dry Cow Treatments, Infection Treatments, Homeopathic Treatments

NAME OF PRODUCT	MILK WITHHOLDING		MEAT WITHHOLDING
	MILKINGS	HOURS	

DISEASE AND TREATMENT RECORDS

For Bovine dairy animals on property of

Location

RECORDS MUST BE KEPT FOR:

All treatments to animals, e.g. antibiotics and inductions. **All diseased animals even if not under treatment**, e.g. sever injury, abscess, severe diarrhoea and fever. **All homeopathic treatments. Animals showing evidence of infectious disease.**

All records are to be made within 48hrs after treatment or isolation. Records must be kept for 2 years.

Animal Number	Disease/Condition	Treatment Used	No: of doses Amount	Treatment Start Date	Treatment 2nd/3rd Date	Last Treatment	Administered by	Withholding Time Milkings	Milk to Vat Date

To minimise the risk of putting antibiotics diseased, sick animals' milk into the bulk milk vat the farmer (operator) should:

- Establish a clear method of identifying treated animals in the herd
- Depending on the number of treated animals in the herd run treated animals separately or draft out at milking time, separate and milk last after the line to vat is removed or closed
- Check each cow's identification against **HERD MANAGEMENT RECORDS** to determine health and treatment status
- Follow withholding periods of animal health treatments (refer to **HERD MANAGEMENT RECORDS**, drug manufacturers instructions or veterinary instructions).

In the event of an antibiotic contamination being detected or suspected the dairy farmer (operator) must:

- Notify dairy factory of contamination problem (complete details on **PROBLEM RECORD**)
- Secure silo/vat outlets from possible collection
- Farmer should note the reason, if known, for the contamination problem e.g. animal identification, relief milkers not made aware of the identification method used on this farm
- Review animal identification system
- Ensure all staff are aware of identification system used on the farm - run an in-house training session - record training on **STAFF TRAINING RECORDS**

Recording Systems

System for Individual Animal Identification	
System for Recording Animal Health Records Temporary Permanent	
Marking system for: Treated cows lactation Diseased cows Colostrum cows Dry Cow Therapy Introduced animals	
System for Colostrum Cow Separation	

Herd Separation Method

Start of Season / Calving Period All treated / diseased cows are kept in a separate mob in a nurse paddock close to the dairy; and milked last after the milk inlet pipe has been removed / diverted to prevent milk entering the vat.	
During Lactation (same as above)	

MASTITIS CONTROL

The farmer (operator) should ensure that the milking process minimises the transmission of bacteria between animals and between quarters of animals.

Minimising the spread of mastitis in the herd will help to reduce the BMCC levels in the herd.

To reduce the BMCC of the herd the farmer (operator) should:

- Refer to the dairy company payment advice and herd test results from your herd test centre
- Observe the frequency of cup slip (%) during milking - record details on **WEEKLY MILKING CHECKLIST**
- Check the teat condition pre- and post-milking
- Ensure all quarters are milked out
- Refer to the Australian mastitis programme 'Countdown Downunder'

In the event of increased BMCC levels the farmer (operator) should

- Have the milking machine tested by a qualified AMMTA technician
- Have the local veterinarian examine the affected animals
- Have the bacteria causing the mastitis identified (attach to **HERD MANAGEMENT RECORDS**)
- Treat the mastitis cows with a recommended animal health treatment (record details on **HERD MANAGEMENT RECORDS**)
- Retrain operators to remove teat cups from animals - record training on **STAFF TRAINING RECORD**
- Improve teat spraying technique
- Ensure that teat spray treatment is well mixed before application
- Check the concentration of teat spray used

To minimise the risk of increased BMCC levels due to the introduction of mastitis cows and reduce the over all level of BMCC the farmer (operator) should:

- Know the health status of purchased animals – check **VENDOR DECLARATION**
- Isolate new livestock and milk separately until health status determined
- Herd test animals and determine whether treatment is necessary
- Use recommended mastitis treatment; if necessary have mastitis causing agent identified
- Review mastitis treatment
- Use rapid mastitis detectors to find infections
- Refer to dairy company’s payment advice slip
- Refer to the Australian mastitis programme ‘Countdown Downunder’ guidelines to reduce mastitis and BMCC levels in your herd

COLOSTRUM, BLOOD IN MILK

- Clearly identify and isolate recently calved cows
- Record date of calving on **HERD MANAGEMENT RECORDS**
- Milk recently calved cows separately from main herd for 4 to 6 days; feed milk to calves
- Retrain operators on the cow identification system used on farm; record details on **STAFF TRAINING RECORD**

Udder Care

System for ensuring cows are suitable for milking	
System for detection of mastitis	
Type of teat spray used	
When teat spray applied	
System to ensure that only cows with clean dry udders / teats are milked	

Bovine Johne's Disease

To reduce the risk of Bovine Johne's Disease spreading on farm, farmers should follow the 3- Step Calf Rearing Plan as a minimum standard.

- Calves should be taken off the cow within 12 hours of birth
- Management of the calf rearing area should ensure that no effluent from animals of susceptible species come into contact with the calf
- Calves up to 12 months should not be reared on pastures that have had adult stock or stock that are known to carry BJD on them during the past 12 months

The status of all purchased animals should be known.
My Risk Management Plan for Johne's Disease is:

E.B.L. Management

The current EBL status for the herd must be known, if infected, the eradication programme must be under taken.

The status of all purchased animals should be known.

Yearly sampling of your bulk milk vat is under taken and a letter sent to you with the status of your herd.

The status of my herd is:

7. AGRICULTURAL CHEMICALS

Agriculture chemicals must be registered with a National Registration Authority e.g. (Australian Pesticides and Veterinary Medicines Authority)

All agricultural chemicals must be used in accordance with the manufacturer's instructions and be:

- **Suitable for use on a dairy farm**
- **Labelled**
- **Stored securely in a locked, dry, cool, and well ventilated area**
- **Stored further than 50 meters from the dairy**
- **Adhere to withholding periods**
- **Stored in closed original container**
- **Used by an operator that holds a current "Farm Chemicals licence"**

Use of agricultural chemicals must not contaminate milk.

All use of agricultural chemicals must be recorded information required and include:

- **Date of use**
- **Who applied / administered**
- **Trade name of chemical used**
- **Rate of application**
- **What was treated e.g. paddock number, silo number, etc**
- **Withholding period / clearance date**

Record information on PADDOCK RECORD or PESTICIDE, HERBICIDE sheet

Records must be filled out within 48 hrs of use.

Records must be kept for minimum of 24 months.

All chemicals whether they have a withholding period or nil withholding period must be recorded.

Agricultural and Veterinary Chemicals (Control of Use) Regulations 2007

Dairy farmers must meet the following requirements under the above Regulation.

Records of use of agricultural chemical products

- **The user of an agricultural chemical product must, within 48 hours of using that product, make an accurate written record of:**
 - (A) Rate of application
 - (B) Date the product was used
 - (C) Trade name of product used
 - (D) Crop or commodities product was applied
 - (E) If the product is poison bait intended for pest animal control, the date on which the baiting period started and date baiting ended
 - (F) If the product is not a poison bait for pest animal control then record
 - Area of land product applied
 - Volume of water to which product applied
 - Volume of the stored commodity to which product applied
 - Weight of commodity to which product applied
 - (G) Specific location at which product was used
 - (H) In the case of product applied by being sprayed outdoors (other than by means of a hand held appliance) wind speed, and direction at site of application
 - (I) Name address of person spraying, spreading or dispersing the product and if applicable the name and address of the person supervising such spraying, spreading or dispersing chemical to be identified.
 - (J) The name and address of person for whom the spraying, spreading or dispersing of product was carried out.

- **Records must be retained for two years.**

Hand held appliance means - a small portable sprayer that can be carried and operated manually.

Traceability of Agricultural and Veterinary Chemicals use.

All agricultural and veterinary chemicals used must be recorded, regardless of whether the chemical has a milk withholding period.

Records of use of veterinary chemicals products

- **The user of a veterinary chemical product must, within 48 hours of using that product, make an accurate written record of:**
 - (a) the trade name of product
 - (b) the species and location of the animal
 - (c) any identification number or description of animal
 - (d) the date on which the animal was first treated
 - (e) the date of each subsequent treatment of the animal
 - (f) the quantity of the product used for each treatment

- **Records must be retained for two years.**

Module Two - Livestock Purchases and Sales

1. PURCHASE OF LIVESTOCK

ALL LIVESTOCK PURCHASED ONTO FARM MUST BE ACCOMPANIED BY A NATIONAL VENDORS DECLARATION FORM

- Forms must be kept and filed
- No animal can enter the property unless the disease and chemical residue status is known
- Any animal under treatment at time of entering the property must be recorded in DISEASE TREATMENT RECORDS
- Other Diseases
- The status for Enzootic Bovine Leucosis (EBL) and Bovine Johnes Disease must be recorded
- All stock purchases including Bulls must be recorded in the Herd Register

2. SALE OF LIVESTOCK

Animals may be sold that have not completed their withholding period for either animal treatments or feed treated with pesticides or other chemicals.

The farmer (operator) should ensure that no animal leaves the farm with antibiotic or pesticides residues.

To minimise or prevent this occurring the farmer (operator) should:

- **Refer to HERD MANAGEMENT RECORDS, PADDOCK RECORD, STOCKFEED PURCHASES and the ANIMAL HEALTH TREATMENT schedule for details on the various chemical treatments and when the withholding period (if any) is over**
- **Provide VENDOR DECLARATION to the purchaser of the animals**
- **Record all livestock sales in your HERD MANAGEMENT RECORDS and keep copies of VENDOR DECLARATIONS you will have completed when selling animals.**

In the event of a problem arising (residues detected in livestock sold from the farm) the farmer (operator) should:

- **Review animal health treatments and other chemical treatments (fumigants, pesticides etc) used on the property (in consultation with local veterinarian) and the animal identification system used**
- **Review methods and reasons for selecting stock to sell (refer to the HERD MANAGEMENT RECORDS)**
- **Update ANIMAL HEALTH TREATMENTS and withholding periods**
- **Ensure that all staff are aware of the identification system used on the property for identifying treated animals**

- **Ensure all staff are aware of the paddock layout and identification and any treatments that have occurred on the paddocks and the withholding periods of these treatments, if any.**
- **Record details of residues on PROBLEM RECORD sheets**
- **Review pesticide treatments and animal feeding practices on farm**
- **Review livestock purchase methods (if this is found to be the initial source of the contamination problem)**

Module Three - Staff Training Skills and Knowledge

The owner of a dairy farm must ensure that persons undertaking and supervising the milking operations and the management of the dairy farm Food Safety Programme can demonstrate competency and the necessary skills and knowledge in the relevant dairy activities in:

- a. Skills and knowledge in the hygienic milking of dairy animals
- b. Skills and knowledge in the administration of veterinary drugs and applications of agricultural chemicals
- c. Skills and knowledge of food safety and food hygiene matters relevant to the activities undertaken at the premises
- d. Skills and knowledge of the animal identification systems
- e. Skills and knowledge of the milking procedures
- f. Skills and knowledge of preparation of animals for milking
- g. Skills and knowledge of the machine operation (milking equipment, heat exchanger, bulk milk vat)
- h. Skills and knowledge of mastitis detection, treatment
- i. Farm chemical use
 - J Skills and knowledge of the cleaning procedures for plant and vat

Staff training highlights the need for ensuring that staff have the appropriate skills to perform key farm duties.

Training of employees in any business is important. On-going training, whether it be through formal courses (e.g. dairy farm traineeships, farm management, computer training) or informally by attending workshops, discussion groups or on-the-job training and meetings, ensures staff working on your farm are keeping up to date with current practices in the industry.

Training can be particularly important when farm owners are absent from the day-to-day running of a property. Owners need to rely on staff to ensure that the farm is running well, and this means relying heavily on the skills and knowledge of all the staff.

Often a solution for dealing with a problem that has occurred on a farm can include re-training staff, e.g. chemical handler's course.

1. TRAINING & TRAINING RECORDS

Maintaining records of staff training will allow farm owners and managers to quickly determine whether staff need further training, and in what areas, to ensure farm operations run smoothly.

Complete the skill details on Form D - **STAFF TRAINING & SKILLS RECORDS**.

If staff have the appropriate skills to perform key farm duties place a tick in the box opposite that skill and against their name.

Lack of training may be the root cause of problems involving your milking and livestock operations.

Module Four – On Farm Requirements

- 1 WATER QUALITY**
- 2 STOCK WATER**
- 3 RECLAIMED WATER**
- 4 EFFLUENT MANAGEMENT**
- 5 EQUIPMENT MAINTENANCE PROGRAMME**
- 6 DESIGN, CONSTRUCTION, MAINTENANCE OF DAIRY PREMISES**
- 7 PEST CONTROL**
- 8 CALIBRATION THERMOMETERS**
- 9 VICTORIAN INDUSTRY ENDORSED ELEMENTS REFERENCES TO WEB LINKS**
- 10 FORMS**

1. WATER QUALITY

It is important to ensure that the water you supply to your livestock and use in your milking operations e.g. plant vat washing, udder and teat washing, is suitable for the purpose and not result in the direct or indirect contamination of milk, is free from pathogens, taints and odours, plant and algal toxins, agricultural and veterinary chemicals.

These contaminants can end up in the milk produced on your farm.

MILKING SHED WATER

Dairy farms must have enough water of suitable quality to clean the premises, animals and equipment and for cooling of the milk to prevent the risk of contamination of the milk. Water used for cleaning udder and teat surfaces must not contaminate milk.

FARM DAIRY WATER

- Source of water supplied

- Any treatment of water

- The uses of water

- Water treatment plan

2. STOCK WATER

Hazards identified in the stock water by contamination from the environment or agricultural practices must have control measures to manage any hazard.

Milking animals must not consume or have access to contaminated water that is likely to cause disease transmissible to humans or contaminate milk.

To ensure that you are using the best possible water supply available to your farming operation:

- Protect the water from possible contamination with agricultural chemicals by taking care when applying chemicals near water supplies - this includes dams, tanks, streams etc
- Prevent stock access to contaminated water supplies (e.g. chemical or algal blooms) - check with your local department of agriculture to decide if, and when, this water source can be used for stock and/or in the milking shed
- When using chemicals on your farm make sure to read the product directions (this will help minimise the risk of contaminating your water supplies)
- Avoid situations where run off from washing equipment or chemical containers can enter your water supplies
- Be careful when using wastewater to irrigate your paddocks - dairy shed wastewater must not enter into waterways. The high nitrogen content of this water may also contribute to toxic algal growth
- Be careful when applying fertilisers - these can run-off into water ways and may cause the growth of toxic algae
- The water quality on your farm could be a source of milk quality problems - remember to check this potential problem area if you are having problems with milk quality payments

If in doubt of the water quality on your farm check with your local department of agriculture for assistance and advice.

3. RECLAIMED WATER

Dairy farms using reclaimed water to irrigate dairy pastures must adhere to the Environmental Guidelines for the Use of Reclaimed Water (EPA,2001) and the requirements set out in Reclaimed Water on dairy farms- General Information and Requirements for Users, (VDIA,1999).

4. EFFLUENT MANAGEMENT

- Effluent Management needs to ensure that all effluent remains on the property or is disposed of to another suitable property.
- Stock should not have access to the effluent, if effluent is sprayed on paddocks, a suitable withholding period should be observed before allowing cattle to graze (Guideline 10 –14 days)
- Effluent should be stored away from the milking shed and milk storage area (Guideline greater than 50 metres)
- Effluent must be disposed of in a manner that does not jeopardise food safety.
- The effluent system must be reviewed quarterly and any problems recorded, a **Incident Report** is completed
- **Waste water management (including effluent). Outline the current method of waste water treatment and disposal e.g. pondage system, travelling irrigator, gravity feed**

Reference to Dairy Gains –

Here is a web link to the Industry Endorsed Elements. The link will give background to the program. www.dairyingfortomorrow.com

The following 4 Questions will be asked at audit time

1. Do you have an effluent system (pond or direct application)?
2. Is your effluent contained on site- does not leave the property boundary or enter surface waters (waterways, drains etc)?
3. Does your pond ever overflow, become crusted or never need emptying?
4. Do you spread or rotate your effluent over at least 10% of farm to avoid nutrient overload?

5. MILKING EQUIPMENT, MILK COOLING AND STORAGE EQUIPMENT MAINTENANCE PROGRAMME

- It is important to have a regular maintenance programme in place to ensure that your milking plant is running effectively. It is recommended that you have your milking plant checked by an AMMTA qualified machine technician yearly.
- A record must be kept of the repairs, servicing and maintenance of the milking, milk cooling, and storage equipment.
- Have your vat and cooling equipment serviced once per year - particularly coming up to the warmer months of the year.
- Have your hot water unit checked by a qualified technician once per year - hot water is important for an effective machine cleaning programme and can help control milk quality problems. Have the temperature checked against a certified thermometer once per year - this can be done against the certified thermometers used by authorised AsureQuality auditor. Your dairy hot water service should be capable of heating water to greater than 90 °C.
- Check your rubber ware (liners, milk tubes etc) - you should replace all your liners every 2500 milkings or twice per year. You should also replace damaged or cracked rubber ware and liners when found to reduce problems with milking and milk quality.

All milking plant, vat equipment and utensils used for milk collection storage, must be made of materials that are easy to clean, disinfect and are corrosion resistant. They must also be resistant to acid and alkaline washing.

All milking equipment and piping is to be installed in accordance to the manufacture's instructions or any technical standard e.g. Australian Milking Machine Trade Association – AMMTA - Australian Standard AS 1187 etc.

6. DESIGN, CONSTRUCTION, MAINTENANCE OF MILKING SHED, MILK STORAGE AREA AND SURROUNDS

Premises used for the production and storage of milk and milking equipment, must be designed, constructed, situated and maintained in a manner that will prevent the introduction of hazards and contamination to the milk.

The premises must be secure and free of pests and are protected from dirt, dust, fumes, smoke and other contaminants.

The premises include any building or other structures where milking, chilling and storage activities occur and adjacent animal holding areas.

WALLS, CEILINGS, ROOF UNDER SURFACES, BAILS AND EXPOSED TIMBER

All walls, ceilings and roof under surfaces of the dairy must be constructed to prevent or minimise the harbouring of birds, rodents, insects or other animals and also minimise the accumulation of dust and dirt.

They shall be made of a material the final surface of which is impervious to moisture and allow for effective cleaning and if necessary, sanitising.

Doors and Ventilation

Doors must be fitted in the milk storage room where there is a lidded vat.

Where roller doors are fitted they shall have capped ends to prevent birds nesting.

There shall be adequate ventilation to provide sufficient air movement to dry out the room's interior surfaces.

Screens

Where there is a lidded vat permanent screens must be provided over ventilation openings to prevent the access of flies, birds and rodents into the milk storage room.

Milk Storage Room Lighting

Lights shall be placed so that they will shine into lidded vats.

Lights in the milk room and storage room will be screened with shatter proof cover so that no glass from lights can enter the milk supply via vats or wash tubs.

Lights must be easily cleaned and shall be designed so that dust will not accumulate on top surfaces.

Milking Area Lighting

Permanent lighting shall be installed in milking area, the lighting shall be sufficient to adequately illuminate the area where animals are milked.

Floors, Yard Surfaces

All the floors of a dairy (milking area, receiving room, milk storage area, yards and associated storerooms, offices) shall be made of concrete or a similar impervious material. These floors and yards shall be uniformly graded, be able to be readily cleaned after every milking and have a fall to allow drainage to approved outlet points.

Kerbing

The perimeter of all the yards and all races concreted shall have a kerb minimum of 150mm above the level of the surface of the yard. The kerb shall be made of concrete. The purpose of the kerbing is to stop soil and dung being washed over the side.

Effluent Drains and Sumps

Drains, sumps and traps must be of a sufficient size to cope with the total effluent flow. There shall be adequate fall in the drains to the drainage point. Open drains shall be constructed of concrete and rounded off at bottom to assist with self cleaning.

Effluent Disposal

Drainage out falls or effluent discharge from all livestock including pigs and silage pit run-off must not be closer than 50 meters from the milking, milk receiving and milk storage areas and the water supply.

This includes effluent ponds, treatment ditches and places where effluent is sprayed onto land.

The application of the following waste to land used for grazing milking animals and the use of the feed from the land shall not be permitted

- Human waste
- Meat processing waste
- Industrial waste from tanneries and pulp and paper mills

Waste water from the farm dairy effluent system must not be used for cleaning the yards and premises.

Amenities

Where there is a toilet at the dairy then there shall be a door between any toilet and the milking, milk receiving area or milk storage area.

The toilet shall be in a separate room with a ceiling and adequate ventilation.

A hand basin shall be provided in or adjacent to the toilet, have running water, soap and be connected to the toilet drainage system.

Both the toilet and basin shall be fitted in compliance with local authority by-laws.

Storage of Goods

The milk storage area shall be used only for the storage of equipment required for the milking process, milk cooling, and refrigeration and cleaning.

Storage facilities shall be provided for goods required for use in the farm dairy.

A cupboard shelves or separate room shall be provided to store materials and equipment associated with the milking process.

Cupboards and shelves shall be set above the floor so that the area under can be washed and kept clean.

All animal treatments shall be clearly identified and must be kept in a secure facility which should be capable of being locked.

All cleaning chemicals must be labelled and securely stored.

Maintenance of Dairy

On a yearly basis, the dairy premises must be inspected, assessed by the farm operator to ensure that the premises and facilities used in the milking of the animals is constructed, and maintained so that the milking shed, milk vat, and milking equipment must protect milk from contamination during milking, storage and collection.

All construction and equipment non-conformance must be rectified and recorded on the **(PROBLEM RECORD)**.

Pigs and Poultry Housing

Because pigs and poultry can carry infectious diseases that may result in the contamination of milk, milk tanker and dairy factory; the above animals must not be on free-range around the dairy premises.

Poultry must be housed 20 meters away from; milking area, milk storage area, and milk collection area.

Pigs must be housed 50 meters away from; milking area, milk storage area, and milk collection area.

Cooling Towers

All cooling tower systems must be registered with the Department of Health. Registration forms and a Risk Management Plan Template can be obtained from the Department of Health on 1800 248 898 or downloaded from the following web link.

www.health.vic.gov.au/environment/legionella/index.htm

Information for cooling towers can be found on the web link for the Victorian Industry Endorsed Elements.

My Risk Management Plan can be found:

General

- Milking sheds must be maintained in a suitable condition to prevent build up of dirt, manure and cow feed. Where necessary, repairs to walls, floors and roof areas must be completed as necessary to maintain these conditions.
- Milk storage areas must be kept clean and must be kept clear of unnecessary items. In particular, clear access must be made to enable hygienic milk collection.
- Walls, floors and ceilings must be maintained in good conditions to enable adequate cleaning of the area and prevent contamination from the external environment.
- Shed surrounds must be maintained in a suitable condition to minimise pest activity, mud and dust. This includes maintenance of tracks and grass areas.

7. PEST CONTROL

Pests must be controlled to prevent the contamination of milk by pests or pest activities, such as faeces, urine, hair and nesting material, and in a way that does not result in pesticide or insecticide residues getting into the milk.

A programme that ensures the milking premises are kept free from pests as much as practicable should be under taken.

The system should cover both preventative measures and eradication measures.

All farms must have an active pest control programme.

This must include a map of the control area and records kept for all bait stations.

Pesticides can only be applied through a Bait Station system.

The inspection of the bait stations and pesticide or insecticides must be routinely carried out and recorded.

Pesticides and insecticides must be used in accordance with manufacturers' instructions and must be labelled and stored in a secure manner 45 meters from the dairy.

PESTS: includes, but is not limited to birds, rodents, insects and arachnids and covers all animals that could contaminate food either directly or indirectly.

The risk of contaminating milk by pesticides or insecticides must be prevented.

Shed surrounds must be maintained in a clean and tidy condition to prevent harbourage of pests. Pests are best controlled by maintaining good housekeeping (such as cleaning up feed spills) and by minimising entry points to the milk storage area. Where possible, openings to the milk storage area should be kept closed or sealed up to prevent pest access.

If necessary, pest control chemicals may be used, however, these must be external to the milk storage area and away from feed storage to prevent accidental contamination of milk or feed with pesticides.

Pest proofing should be checked twice a year and recorded on the Maintenance Record (Form A).

Procedure:

Person responsible for pest control and monitoring activities on this farm is

Any problems or corrective actions to be reported to

Monthly check all stations for pest presents and record

Check control areas e.g.

Area	Control used
Farm Dairy Surrounds	All
Milk Storage Area	Traps only
Milk Treatment Room	Traps only
Bail Area	Traps only
Side Buildings	Traps only
Feed Storage Areas	Traps only

Bait stations are used on this farm

YES	NO
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For **YES**, record all bait station sites on plan and check monthly record findings.

Also record findings on **(PROBLEM RECORD)**.

Records required for Pesticides and Insecticide used

- A** Date of use?
- B** Who Applied?
- C** Name of pesticide used?
- D** Rate of application?
- E** What area was treated?

Pest Control - BAIT STATIONS

Pest activity Very High (VH), High (H), Medium (M), Low (L), None (N)

Date	Station Numbers																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

8. CALIBRATION THERMOMETERS

In order for dairy farms to monitor the cooling capacity of their equipment the farmer needs to demonstrate that the thermometer used to measure the temperature of the milk is accurate.

Thermometers, whether fixed as part of equipment or handheld, must have been calibrated by the supplier when purchased. Documentation provided at purchase should refer to the accuracy limit of the thermometer supplied. The farmer needs to check, however, that the reading on the thermometer remains accurate over time.

The farmer may check the accuracy of a thermometer by comparing its reading against an already calibrated thermometer (AsureQuality dairy auditor, refrigerator technician, Dairy Factory thermometer) if the thermometer is not accurate, the farmer should record how far the instrument is out and the correction needed. Any adjustment to a thermometer should be performed by the supplier.

WORK INSTRUCTION FOR THERMOMETER ICE POINT CHECK

Frequency

All thermometers used in dairies for assessments of hot water and milk vat temperatures shall be checked for accuracy by calibrated thermometer or Ice Point determination yearly.

Additional checks shall be conducted if discrepancies between farm silo/vat thermometers and working thermometer are observed.

Equipment

Vacuum flask (thermos)

Crushed Ice

Plastic siphon tube

Metal rod

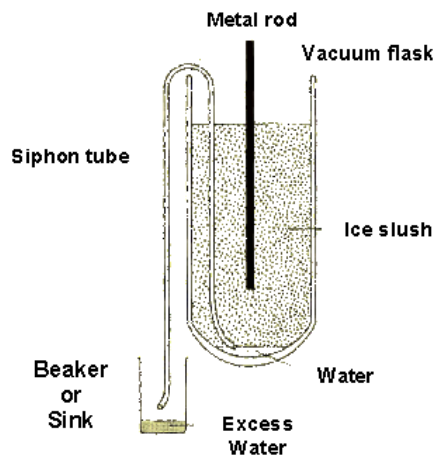
Working Thermometer

Working Thermometer Ice Point Check Sheet – Refer 8.1.1

Method

1. Set up Ice Bath
2. Crush ice into small chips measuring 2-5mm.
3. 1/3 fill vacuum flask with water (with siphon tube installed)
4. Add ice to full flask
5. Compress ice/water mixture to form a tightly packed slush (metal rod may help)
6. Siphon off any excess water
7. Leave mixture to stand for 15 minutes

Diagram of Ice Bath Set-Up



1. Insert probe into the centre of the Ice bath and leave for 10 minutes.
2. Read and record temperature reading on the check sheet, repeat 3 times at 3-minute intervals.
3. Calculate the average reading and record on Working Thermometer Ice Point Check Sheet – Refer 8.1.1

Follow-up

If temperature readings with a discrepancy of greater than $0 \pm 1^{\circ}\text{C}$ are found at the Ice Point Check, arrange servicing and calibration of the instrument.

Working Thermometer Ice Point Check Record Sheet

Thermometer Description:							
Serial No.:				Location:			
Date	Reading 1	Reading 2	Reading 3	Average	Result P/F	Tester	Signature

INDUSTRY ENDORSED ELEMENTS – web links

COOLER TOWERS:

www.health.vic.gov.au/environment/legionella/index.htm

DAIRY GAINS:

www.australiandairyfarmers.com.au

DAIRY SAT:

www.dairyingfortomorrow.com

MAINTENANCE RECORD

	Date	Date	Repairs recommended, comments	Action taken; manager/ operator signature
Milking machine test (Attach report)				
Changed liners & rubber ware				
Vat(s) service				
Plate heat exchanger				
Milk pump				
Hot water unit				
Vacuum pump				
Shed and surrounds				
Milk storage area				
Pest control/proofing				

** Temperature checks against a certified thermometer can be done at the time of the audit byASUREQuality authorised auditor*

**PROBLEM RECORD
NON-CONFORMANCES**

DATE	PROBLEM	ACTION TAKEN TO CONTROL NON- CONFORMANCE	ACTION TAKEN TO PREVENT REOCCURRENCE	CLOSE OFF DATE	OPERATOR SIGNATURE

HERD MANAGEMENT RECORDS

Animal	Problem	Treatment, dose & method	Date of last treatment	Clearance date after with holding	Operator

MILK AND HOT WATER TEMPERATURE CONTROL RECORD SHEET

ONCE A WEEK RECORD TEMPERATURE OF MILK IN VAT 3.5 HRS AFTER MILKING AND HOT WATER BEFORE USE.

STANDARD – MILK – 5 C OR LESS WITHIN 3.5 HRS OF THE START OF MILKING
HOT WATER – 85 TO 90 C

DATE	TEMPERATURE		TIME	PERSON	ACTIONS NON- CONFORANCES
	MILK	HOT WATER			
01.03.10					
08.03.10					
15.03.10					
22.03.10					
29.03.10					
05.04.10					
12.04.10					
19.04.10					
26.04.10					
03.05.10					
10.05.10					
17.05.10					
24.05.10					
31.05.10					
07.06.10					
14.06.10					
21.06.10					
28.06.10					
05.07.10					
12.07.10					
19.07.10					
26.07.10					
02.08.10					
09.08.10					
16.08.10					
23.08.10					
30.08.10					
06.09.10					
13.09.10					
20.09.10					
27.09.10					
04.10.10					

STAFF TRAINING RECORDS

SKILLS	NAME:	NAME:	NAME:	NAME:
Milking Machine Preparation				
Milking				
Milking Machine Cleaning				
Stockfeed Purchase				
Stockfeed Preparation				
Stock Treatment (including identification)				
Stock purchases				
Chemical Handler Cert				
Records:				
Milking Machine Maintenance				
Problems				
Herd Management				
Staff Training & Skills				
Paddock				
Stockfeed Purchases				
Weekly Milking				

Legend: √ = have appropriate skills to do the job without supervision

PADDOCK RECORDS

Refer to farm plan

Date of Use & Operator Name	Paddock Number (Name)	TREATMENT			Product Withholding Time	Date Ready to Run Stock On	Stock Class
		Chemical Used	Application Rate	Application Method			

STOCKFEED ADDITIVES

SUPPLIER	TYPE OF ADDITIVE	DATE	SUPPLIER DECLARATION YES / NO	DOCKET NUMBER	CLASS OF STOCK FED (Milkers, calves etc)	COMMENTS TONNAGE FINISH DATE

STOCKFEED PURCHASES

SUPPLIER	FEED PURCHASED	DATE	SUPPLIER DECLARATION YES / NO	DOCKET NUMBER	CLASS OF STOCK FED (Milkers, calves etc)	COMMENTS TONNAGE FINISH DATE

STOCKFEED FODDER, HAY, SILAGE, BY PRODUCTS

SUPPLIER	FEED PURCHASED	DATE	SUPPLIER DECLARATION YES / NO	DOCKET NUMBER	CLASS OF STOCK FED (Milkers, calves etc)	TONNAGE FINISH DATE	COMMENTS

STOCKFEED SUPPLIER DECLARATION.

Supplier Name:

Address:

Phone:

Fax:

Stockfeed Description:

Date Supplied

Agistment Feed:

Location:

Date Agistment used

Declaration

I / We declare that the above stockfeed or agistment is provided free from any chemical residues above maximum limits, does not contain any meat meal or fish meal, and that if permitted substances are used that correct usage rates and withholding periods have been observed.

.....
Signed on behalf of supplier

.....
Date

MONTHLY HYGIENE CHECK					
MONTH _____		YEAR _____			
Completed by _____		Tick box if clean or OK X if fault found			
MILKING MACHINES	TICK - X	MILK VAT	TICK - X	WASH TEMPERATURES	TEMPERATURE
Liners & pulse tubes		Inlet pipe & valve		At start of plant hot wash	
Claw & claw buttons & seals		Interior surfaces & agitator		At end of plant hot wash	
Long milk rubbers & elbows		Spray ball (no debris)		At start of vat hot wash	
Main milk line (use torch)		Outlet		At end of vat hot wash	
Receiver & airlines to sanitary trap		Seals (inlet and outlets)		MILK TEMPERATURE	
Sanitary trap & pulsator airline		Manhole door rubber		Record at first milking into vat	
Jetter cups (condition air leaks)		ARE THESE AREAS CLEAN		Last cups off	
Milk pump including seals & rubber		Milking area, yards & races		3 1/2 hours after start of milking	
Filter (top & bottom joins)		Milkroom & milk storage area		CONTACT WASH TIME	MINUTES
Plate cooler inlet (twice yearly open)		Farm dairy surrounds & environment		Plant start to finish – minutes hot wash only	
Test bucket & inside of rubber hoses				Milk vat start to finish – minutes hot wash only	

For sanitation faults X, wash and milk temperature failures, refrigeration and primary cooling failures, power failure, delayed milking etc. Please complete faults and corrective actions.

FAULTS AND CORRECTIVE ACTIONS TAKEN

DATE	FAULT FOUND	ACTION TAKEN	PERSON	DATE FIXED

DISEASE AND TREATMENT RECORDS

For Bovine dairy animals on property of

Location

RECORDS MUST BE KEPT FOR:

All treatments to animals, e.g. antibiotics and inductions. **All diseased animals even if not under treatment**, e.g. severe injury, abscess, severe diarrhoea and fever. **All homeopathic treatments. Animals showing evidence of infectious disease.**

All records are to be made within 48hrs after treatment or isolation. Records must be kept for 2 years.

Animal Number	Disease/ Condition	Treatment Used	No: of doses Amount	Treatment Start Date	Treatment 2nd/3rd Date	Last Treatment	Administered by	Withholding Time Milkings	Milk to Vat Date

Working Thermometer Ice Point Check Record Sheet

Thermometer Description:							
Serial No.:				Location:			
Date	Reading 1	Reading 2	Reading 3	Average	Result P/F	Tester	Signature

PESTICIDE, HERBICIDE, INSECTICIDE USE RECORD SHEET

Date of Use	Who applied	Chemical used	Application Rate	What was treated	Withholding Time

APPENDIX ONE

Description of some terms used in this manual

- **AMMTA** (Australian Milking Machine Trade Association)
- **Animal Health Treatments record**

Make sure that you include all possible animal health treatments that you use for your livestock during the year, including mastitis treatments, drenches, and external parasite treatments etc. (Each year a new form will need to be completed). Maintaining this record in conjunction with your HERD MANAGEMENT RECORDS will help ensure that chemical contamination of your milk, meat and livestock will be minimised. Remember to obtain details from your local veterinarian of any treatments given to individual animals and record all details on any withholding periods for these treatments in your HERD MANAGEMENT RECORDS.

- **Approved Feed Supplier**

A supplier that has a proven history supplying feed of good quality and can provide a Supplier Declaration for stock feed supplied.

Examples of chemicals that should be tested for if requesting a CERTIFICATE OF ANALYSIS include the following:

aldrin; BHC (alpha, beta); chlordane/oxychlordane; lindane; DDE, DDD, DDT; dieldrin; heptachlor; hcb bromophos-ethyl; chlopyriphos; chlorpyiphos-methyl; chlorfenvinphos; coumaphos; diazinon; ethion; fenchlorphos; fenitrothion; fenthion;

Feed samples may also contain antibiotics and other chemicals - make sure you ask your feed supplier to supply you with feed free from chemical residues.

- **Cup Slip %**

To calculate %cup slip during milking - count the number of times you notice cups falling off cows. Divide this number by the number of cows you are milking and then multiply this result by 100.

E.g. you are milking 125 cows this morning. During the milking you notice that cups fell off cows teats 29 times.

29 divided by 125 = 0.232
the 0.232 multiplied by 100 = 23.2%

It is recommended that **if there is more than 5% cup slip** then the milking equipment needs to be serviced by an AMMTA qualified technician; the milk lines may be too small to carry the amount of milk during the milking. High levels of cup slip during milking can contribute to mastitis spreading through your herd if there are mastitis infected cows present (mastitis infection may be either clinical or sub clinical). Cup slip causes vacuum fluctuations in the milking plant which can spread mastitis causing bacteria between animals. In some cases cup slip may be due to the size of the cows' teats. This factor should be noted on your WEEKLY MILKING CHECKLIST if you are certain this is the cause.

- **Problem record**

This form can be used to record any event which may potentially cause a problem in your farming operation e.g. vat break down, power cuts, lack of feed, antibiotics in the vat, high levels of cup slip, hot water unit breakdown, broken claw bowl, algal blooms in water supply etc.

Using the PROBLEM RECORD to document any of these types of issues will allow you to potentially trace back to the root cause of milk and meat/livestock quality problems.