



Minimum requirements for farm food safety programs

Implementation guide

Contents

Introduction	3
Glossary of terms	3
Section 1: Licensing, food safety program implementation and review	4
Section 2: Stockfeed	5
Section 3: Agricultural chemicals	6
Section 4: Veterinary drugs	7
Section 5: Cleaning chemicals	8
Section 6: Water.....	9
Section 7: Premises	10
Section 8: Cooling and storage equipment.....	11
Section 9: Calibration	12
Section 10: Pest control	12
Section 11: Traceability	13
Section 12: Competency and training.....	13
Section 13: Management of non-conformance.....	14
Section 14: Milking/communicable diseases	14
Appendix 1: Potential order/summary matrix.....	15

Published by Dairy Food Safety Victoria, May 2016

© Dairy Food Safety Victoria

Introduction

In Victoria, under the *Dairy Act 2000*, anyone operating a business where animals are kept for the purpose of producing milk for profit or sale is required to be licenced with Dairy Food Safety Victoria (DFSV).

As a condition of the licence all dairy farmers must operate under a food safety program (FSP) approved by DFSV which documents the control measures and procedures that are in place to reduce or eliminate significant food safety hazards associated with producing milk.

Compliance with the requirements of the approved food safety program is verified through a regular audit program, currently at a minimum of once every two years for dairy farm licensees.

The purpose of this Guide is to assist milk companies and farmers in understanding DFSV minimum requirements when assessing the appropriateness of and ongoing compliance with food safety programs (FSPs) on farm. The guidance comments in each section can be used to ensure a consistent approach to the development and auditing of FSPs.

The following reference documents provide detail around what should be included in a food safety program:

- DFSV: Code of Practice for Dairy Food Safety
- ANZDAC: Guidelines for Food Safety – Dairy Farms
- FSANZ: Primary Production and Processing Standard for Dairy Products: A Guide to Standard 4.2.4. Part 1: Dairy Primary Production Requirements
- FSANZ Food Standards Code: Chapter 3 – Food Safety Standards

Glossary of terms

ANZDAC	Australia & New Zealand Dairy Authorities Committee
APVMA	Australian Pesticides and Veterinary Medicines Authority
CAR	Corrective action request
DFSV	Dairy Food Safety Victoria
EPA	Environment Protection Authority
FSANZ	Food Standards Australia New Zealand
FSP	Food safety program
Approved auditor	An auditor approved by DFSV (or the relevant interstate authority) for the purpose of conducting food safety audits on farm

Section 1: Licensing, food safety program implementation and review

Minimum requirements – system

- Farmers must hold a current and valid DFSV dairy farmer licence.
- The food safety program (FSP) must be maintained (up-to-date) and available at the dairy.
- An annual review of the adequacy of the FSP should be completed.

Minimum requirements – records/evidence

A current DFSV licence must be available during an audit.

Records of annual reviews conducted must be maintained, and available during an audit. (Completion of a current FSP template, or completion of a company pre-audit checklist is sufficient evidence this has occurred).

Guidance

Corrective action requests (CARs) relating to the implementation or review of the FSP may be issued by an approved auditor where non-conformances have been raised against several elements of the program.

Section 2: Stockfeed

Minimum requirements – system

- Vendor declarations must be obtained for every source of stockfeed (including other farms, and any on farm mixed additives or supplements) stating:
 - name of supplier (vendor)
 - description of stockfeed and date (period) of supply
 - chemicals residue status
 - any applicable withholding periods
 - amount supplied
 - signature of person making declaration and date or appropriate company stamp.
- Stockfeed containing any material derived from animals, with the exception of tallow (type of tallow to be specified), gelatine and dairy products must not be fed to ruminants.
- A system must be in place to ensure that the use of effluent on paddocks does not pose a food safety risk. Effluent use on paddocks must be recorded.

Minimum requirements – records/evidence required

Records of the addition of supplements or additives must be kept.

Copies of vendor declarations must be available at audit.

Guidance

Vendor declarations are required for each delivery. Where feed is purchased from FeedSafe-accredited businesses a vendor declaration may cover more than one purchase.

Note: Some company programs also require the vendor declaration to include information on:

- GM status
- 'Suitability for use' statement for dairy cattle.

These are not elements currently required by DFSV.

Best practice for effluent application will include a record of the withholding period along with identification of specific areas (e.g. paddock no.) where effluent has been applied.

Section 3: Agricultural chemicals

Minimum requirements – system

- Agricultural chemicals used must be registered and have an appropriate Australian Pesticides and Veterinary Medicines Authority (APVMA) or National Registration Authority (NRA) approval no.
- Agricultural chemicals must be used in accordance with the manufacturer's directions. Farm staff administering agricultural chemicals should be competent to undertake these duties.
- Agricultural chemicals must be stored in a secure manner so that they do not pose a risk to the milk (eg. Store chemicals out of the dairy plant and so that they are not accessible to the herd).

Minimum requirements records/evidence required

Records of use must be kept, stating:

- date of use
- who applied or administered the chemical
- chemical used (including trade name)
- rate of application or administration
- what was treated (e.g. paddock number, silo number, etc.)
- withholding period and clearance date
- farm staff competency in chemical handling.

Weather conditions on the day of application should be recorded if administered via spraying. If application is via aerial spraying then, as well as recording weather conditions, a copy of any instructions given to the pilot about location and dosage should be recorded.

Whenever a spray contractor is used a report should be received from them which details weather conditions, treatment, dosage rates and paddock details.

Guidance

Records must be permanent. Notes on a whiteboard or similar that can easily be removed are considered not to be of a permanent nature and CAR's should be generated as per the guidelines below.

Department of Economic Development, Jobs, Transport and Resources requirements need to be considered. A direct reference to the Agricultural and Veterinary Chemicals (Control of Use) Regulations 2007 must be included in the FSP in acknowledgement that a dairy farmer is required to meet these Regulations. This document details what records need to be kept.

The agricultural chemical being used must be suitable for use (and not pose a food safety risk). Any off label use should be accompanied by documented authorisation for that usage.

Section 4: Veterinary drugs

Minimum requirements – system

- All drugs and teat dips must be registered and must have an appropriate APVMA or NRA approval number.
- Veterinary drugs must be used in accordance with manufacturer's directions (as labelled).
- Veterinary drugs must be stored in a secure manner.
- Milk from animals treated with veterinary drugs must be isolated according to the recommendations as per the drugs usage instructions.
- Farm staff administering veterinary drugs should be competent to undertake these duties.

Minimum requirements – records/evidence required

Records of use must be kept stating:

- date of use
- drug used
- reason for treatment
- rate of application or administration
- who applied or administered the drug
- identification of cow/s treated. (This includes identification of cow for record keeping – eg ear tag number, and also method of identification for the milker eg. paint, to ensure isolation of that milk)
- withholding period and clearance date
- farm staff competency in administration of veterinary drugs.

Guidance

When not in use, drugs must be contained and stored in a manner whereby the drugs do not pose a risk to the food safety of the milk.

- Some food safety programs prescribe the use of locked cabinets, which further minimises risk of access to the drugs by children or other unauthorised persons.
- Expiry dates of drugs and required temperature of storage need to be observed.

Where a veterinarian prescribes an off-label use for a drug, the farmer should receive written advice from the vet to that effect. This record must be available at audit.

Identification methods used for treated cows should be on display (and readily visible) in the dairy. Details of how treated cows are milked or how their milk is kept separate should also be clearly visible in the dairy (eg. separate herd for treated cows, use of test bucket etc.).

Section 5: Cleaning chemicals

Minimum requirements – system

- All cleaning chemicals must be suitable for their intended purpose and used in accordance with the manufacturer's instructions.
- All chemicals must be registered and have an appropriate APVMA or NRA approval number.
- All cleaning chemicals must be labelled, handled, securely stored and disposed of after use so as not to pose a risk to milk.
- Premises must be cleaned and equipment cleaned and sanitised to prevent the risk of contamination of milk

Minimum requirements – records / evidence required

Cleaning and sanitising programs must be documented with ongoing verification (e.g. records of temperature checks, and correct concentrations are used).

Guidance

Cleaning effectiveness may be monitored through a review of quality results. Farm quality results should be reviewed regularly.

Cleaning and sanitation programs should be displayed in the dairy. (These are usually available from the chemical supplier).

Where automatic chemical dosing occurs checks need to be in place to ensure correct dosage is used. This may include a check of the chemical level in the drum, and/ or a strength check on the cleaning solution at the exit from the cleaning system (ie has the correct amount of chemical been dosed into the system etc).

Section 6: Water

Minimum requirements – system

- Dairy farms must have enough water of suitable quality (i.e. that does not pose a food safety risk, or that renders cleaning chemicals ineffective) to clean the premises and equipment, for milk cooling, and for udder washing to prevent the risk of contamination of the milk.
- Where reclaimed water is used it must be in accordance with EPA guidelines.
 - Class A reclaimed water may be used for livestock drinking.
 - Class B and C reclaimed water must only be used for irrigating dairy pastures and withholding periods must be adhered to.

Minimum requirements – records/evidence required

If water is treated, records of treatments should be kept, and documented in the FSP.

Where re-use water is used, it is to be documented in the FSP.

Guidance

If water treatment chemicals are used records of chemicals used should be kept, and evidence of the safety of the product verified. Other treatments may include filtering or UV treatment, and records need to be kept relating to change of filters, replacement of UV lights etc.

If teat dips are mixed with water, boiled (then cooled) water should be used.

Reclaimed water (not dairy farm effluent) is water that has been derived from sewage systems or industry processes and treated to a standard appropriate for its intended use.

Note: Reclaimed water falls into four classes:

Class A	<10 <i>E.coli</i> org/100ml – Fit for human contact (toilets, garden watering), and livestock drinking. Not approved for human drinking, bathing or swimming.
Class B	<100 <i>E.coli</i> org/100ml – May be used for livestock grazing – withholding period of four hours.
Class C	<1000 <i>E.coli</i> org/100ml – Grazing and fodder for cattle, sheep, horses, goats, alpacas etc. (excluding dairy cattle and pigs – which have a withholding period on paddocks of five days).
Class D	Class D reclaimed water must not be used on dairy farms.

Reclaimed water must not be used as wash-down water for dairy milking machinery, food processing machinery or food packaging machinery.

Class A, B and C reclaimed water may be used for irrigation of pasture and fodder for dairy animals however the following restrictions apply:

- The reclaimed water storage and/or irrigation system is not to be accessible to stock.
- The reclaimed water storage area is to be constructed and managed to prevent overflow.

Re-use water is water that has been collected after single use in a dairy plant application e.g. post-clean rinse water, milk cooling water. Re-use dairy plant water, if used, should be documented in the FSP, and must be used in accordance with EPA guidelines.

Water testing may be necessary for farms with milk quality issues, or if the water source is changed. Some companies require an annual water test.

Section 7: Premises

Minimum requirements – system

- 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 contaminants to the milk. In general:
 - walls and ceilings should be smooth and easy to clean
 - floors should be well drained to prevent pooling of water, milk, and chemicals.
- Milking areas must be kept free from undesirable animals whose presence may result in the contamination of milk.

Vats and silos

- All major vat openings (e.g. vat outlets, swing lids, inspection hatches) must be adequately protected (*i.e.* pest proof, prevent entry of foreign matter) and easily cleaned, to ensure protection of the milk.
- The minimum requirement for swing lid vats and silos with unsecured or non-sealed swing lids is for such a vat to be fully enclosed in a pest proof vat room.
- Silo vats with a top opening inspection hatch that is **required for inspection of milk prior to pumping out** (for sampling or reading of dip stick) must be covered with a roof to protect the milk from the environment.
- Silo vats with a top opening or side opening inspection hatch that is **required for maintenance and cleaning purposes only** do not require covering with a roof, however breathers must be pest screened.

Minimum requirements – records/evidence required

Records must be kept of maintenance (*e.g.* milking machine tests, repairs and construction works).

Guidance

Silo side opening hatches and breathers may be housed in a pest proof alcove. Breathers should be at least pest screened.

Where lights are installed directly above vats, the bulbs should either be covered or shatterproof.

All construction and equipment non-conformances identified during an audit must be rectified.

Section 8: Cooling and storage equipment

Minimum requirements – system

- Milking equipment and piping must be installed and tested in accordance with the manufacturer's instructions or any available technical standard (e.g. Australian Standard AS 1187).
- Milk must be cooled within 3.5 hours of the commencement of milking to a temperature not exceeding 5°C and kept at or below this temperature until collected. Systems must be in place that are capable of achieving the cooling and storage temperatures.
- Alternatively, milk must be cooled to a temperature not exceeding 8°C within two hours of completion of milking, and then be cooled to a temperature not exceeding 5°C by two hours and 21 minutes from completion of milking. Milk must then be kept at or below this temperature until collected.
- The cooling requirements may be dictated by customers or markets supplied, and must be validated
- Cooling checks must be done a minimum of twice per year – once mid-summer and once during peak milking capacity.

Minimum requirements – records/evidence required

Records must be kept of the repairs, servicing and maintenance of the milking, milk cooling and storage equipment.

Records must be kept to demonstrate conformance to the requirement to cool and maintain milk at 5°C or less within the prescribed time.

Guidance

Milk cooling

In situations where cooling to less than 5°C within 3.5 hours from start of milking cannot be verified (e.g. due to extended milking times or early milk collection) an alternatively validated time/temperature equivalent for those cooling systems must be identified, e.g. milk cooling model – validation and model interface and/or Early Milk Collection Index (EMCI) tool. (This is a milk collection/ manufacturer issue).

Milk filters should be stored in a dry, protected place.

Section 9: Calibration

Minimum requirements – system

- Thermometers used for checking cooling system capacity (e.g. the vat thermometer) must be calibrated at least annually and records kept of calibrations.
- Thermometers must be a food grade metal or plastic exterior thermometer and MUST NOT be a mercury in glass thermometer.

Minimum requirements – records/evidence required

Accuracy of vat temperature gauges must be checked against a calibrated thermometer or calibrated tanker record at least annually.

Records of calibrations and any corrective actions must be kept.

Guidance

Thermometers may be calibrated by comparison with another thermometer that has been calibrated (e.g. calibration by a field officer or auditor's thermometer), or by a milking machine technician, refrigeration mechanic or chemical company representative.

Thermometers may also be calibrated using ice water and boiling water reference points.

Thermometers used for hot water and detergent temperature checks should also be periodically calibrated. A dropped thermometer needs re-calibration or replacement, and batteries need regular replacement.

Thermometers should be sourced from a reputable source such as a supplier of scientific equipment/thermometers).

Section 10: Pest control

Minimum requirements – system

- Pests must be controlled to prevent contamination of the milk.

Note: This requirement is also referenced under premises.

- Milking and milk storage areas must be kept free from undesirable animals and pests whose presence may result in the contamination of milk.
- Baits must not be above stockfeed in the dairy or feed storage area, and must not be in the milk room.

Minimum requirements – records/evidence required

Records for the use of pesticides, within the dairy premises must be kept and must identify:

- date of use
- type of activity addressed
- pesticide used
- rate of application
- what area was treated
- who carried out the treatment.

Guidance

Pesticides such as toxic baits and surface fly sprays applied to walls should be documented. Records of other pest treatments such as 'cow fly repellent' applied to cows, should also be kept.

Section 11: Traceability

Minimum requirements – system

- All milking stock must be permanently identified, including heifers, as they enter the milking herd.
- A system must be in place to track the ID of treated animals (refer also Section 4 Veterinary drugs).
- Milk must be supplied to a DFSV-licensed entity or an appropriately licensed entity if transfer is across state borders.
- If milk is supplied, sold or delivered to anyone other than a milk company, written approval must be obtained from DFSV confirming how that milk is to be treated so as to deter human consumption.

Minimum requirements – records/evidence required

Records allowing traceability of other farm inputs that can impact on food safety must be maintained.

Records of agistment must be kept. This includes any records relating to stock treatment while on agistment.

A stock register, including stock purchases and sales, and any vendor declarations of purchased milking stock must be maintained. This register should also include bulls.

Guidance

Traceability systems for milk supply will generally be managed by the milk processor. Appropriate traceability records must be kept where the milk is sent to more than one processor.

Section 12: Competency and training

Minimum requirements – system

Those undertaking and/or supervising the milking operation or management of the dairy must be able to demonstrate they have the appropriate skills and knowledge regarding hygienic milking of dairy animals, administration of agricultural chemicals and veterinary drugs, and food safety matters relevant to the activities undertaken at the premises.

Milking personnel must be aware that they should not be milking if they are suffering from or are a carrier of a foodborne disease that is likely to be transmitted through consumption of contaminated food.

Minimum requirements – records/evidence required

Training and competency records for employees and relief staff must be maintained.

Guidance

Relevant procedures should be available to ensure adequate staff training in the tasks that they are responsible for (e.g. cleaning, start up and shutdown procedures, treated stock identification and paddock identification following treatment).

Relief milkers – the licensee should be able to demonstrate that relief milkers understand relevant procedures relating to stock identification and milking practices (e.g. antibiotic usage, dry cow management and which paddocks the milking herd needs to be grazing).

Foodborne diseases that can be transmitted via food contaminated by infected handlers include gastroenteritis, hepatitis A, salmonellosis and campylobacter enteritis, and staphylococcus aureus infection (Ref: FSANZ Primary Production and Processing Standard 4.2.4).

Section 13: Management of non-conformance

Minimum requirements – system

Actions must be taken to correct or prevent non-conformances.

Minimum requirements – records/evidence required

Records must be maintained of non-conformances including the:

- date the non-conformance was identified
- action taken to control the non-conformance
- action taken to prevent reoccurrence
- proposed date by which action will be completed
- actual date of completion
- person responsible for rectifying the non-conformance.

Guidance

Previous audit reports should be sighted to confirm the history of non-conformances.

Milk quality or test reports (e.g. BMCC, bactoscan, antibiotic, or hot milk) should also be reviewed regularly for any adverse trends.

Any failure of the system needs to be recorded. (This includes recording of non-conformances found during audits, routine servicing of equipment etc.)

Corrective actions taken also need to be recorded. (This includes any staff training that follows a non-conformance).

Section 14: Milking/communicable diseases

Minimum requirements – system

- Milk from diseased animals must not be used for human consumption.
- Milk from animals treated with veterinary drugs must be isolated (Refer Section 4)

Animals with infectious diseases transferable to humans through milk or via the animal (TB, Listeriosis, Salmonellosis, Yersiniosis, Leptospirosis and Q Fever) must be segregated, or otherwise effectively managed.

Minimum requirements – records/evidence required

Minimum requirements for record keeping are documented in Section 4: Veterinary treatments.

Guidance

Review of stock sales/disposal and animal health treatment records may indicate a history of animal diseases on farm.

Appendix 1: Potential order/summary matrix

	Section	Minimum requirements	Records/evidence	Guidance	Non-conformance
	Licensing, FSP implementation and review				
Farm inputs	Stockfeed				
	Agricultural chemicals				
	Veterinary drugs				
	Cleaning chemicals				
	Water				
Plant and premises	Premises				
	Cooling and storage equipment				
	Calibration				
	Pest control				
Processes	Traceability				
	Competency and training				
	Management of non-conformance				
	Milking/communicable disease management				