

# **Australian Animal Welfare Standards and Guidelines for Cattle: A Guide for Dairy Farmers**

**September 2014**

**Published by Dairy Australia Limited.**

Whilst all reasonable efforts have been taken to ensure the accuracy of the *Australian Animal Welfare Standards and Guidelines for Cattle: A Guide for Dairy Farmers*, use of the information contained herein is at one's own risk. To the fullest extent permitted by Australian law, Dairy Australia disclaims all liability for any losses, costs, damages and the like sustained or incurred as a result of the use of or reliance upon the information contained herein, including, without limitation, liability stemming from reliance upon any part which may contain inadvertent errors, whether typographical or otherwise, or omissions of any kind.

© Dairy Australia Limited 2014. All rights reserved.

ISBN: 978-0-9924204-6-8

# Contents

<b>1.</b>	<b>Introduction</b>	<b>2</b>
	New animal welfare standards and guidelines	2
	National Dairy Industry Animal Welfare Strategy	2
	Monitoring and evaluation of animal welfare performance	2
	Animal care key to a sustainable dairy industry	2
<b>2.</b>	<b>Principles for cattle welfare</b>	<b>3</b>
<b>3.</b>	<b>Standards</b>	<b>4</b>
	1. Responsibilities	4
	2. Feed and water	5
	3. Risk management of extreme weather, natural disasters, disease, injury and predation	6
	4. Facilities and equipment	7
	5. Handling and management	8
	6. Castration, dehorning and spaying	10
	7. Breeding management	12
	8. Calf-rearing systems	13
	9. Dairy management	14
	10. Beef feedlots	15
	11. Humane killing	15
<b>4.</b>	<b>Dairy industry initiatives to support cow care</b>	<b>17</b>
<b>5.</b>	<b>Glossary of terms</b>	<b>18</b>
<b>6.</b>	<b>Useful contacts</b>	<b>20</b>

# 1. Introduction

This booklet provides an easy reference guide for Australian dairy farmers on new Australian Animal Welfare Standards and Guidelines for Cattle.

Australian dairy farmers are committed to the health and wellbeing of their animals. Their cows are their livelihood and caring for them is a farmer's first responsibility. As an industry, the vision for animal welfare is that every dairy animal is well cared for.

Sound animal welfare practices underpin the reputation and integrity of the Australian dairy industry.

## New animal welfare standards and guidelines

The animal welfare system in Australia aims to ensure all animals receive an acceptable level of care and treatment including adequate housing or habitat, handling, sanitation, nutrition, water, veterinary care, and protection from extreme weather conditions and other forms of natural disasters.

New *Australian Animal Welfare Standards and Guidelines for Cattle* have been developed to safeguard the welfare of cattle on farms across Australia.

The standards and guidelines create clear and consistent regulation based on current scientific knowledge, recommended industry practices and community expectations. They have been developed by the Australian and State governments in consultation with Australian Dairy Farmers (ADF), Dairy Australia, other livestock organisations and animal welfare groups.

The standards are essential *legal* requirements that must be met by all dairy farmers. Following endorsement they will need to be implemented through State and Territory regulation, and they will replace the Codes of Practice for Cattle that previously operated at a State and Territory level. If farmers do not comply they are breaking the law, and will face the risk of legal action and financial penalties.

The standards cover the full range of on-farm management practices for cattle, and their welfare considerations. These include feed and water, risk management, facilities and equipment, handling, castration and dehorning, breeding, calf rearing systems, dairy management, beef feedlots (not relevant for dairy farmers) and humane killing.

Looking after cattle properly makes good farming sense and most Australian producers are already exceeding the requirements of the standards. However, it is important that all dairy farmers are aware of their responsibilities under these new laws.

Widespread public consultation has been completed and it is expected that the standards will be endorsed by all State, Territory and Australian agriculture ministers in 2014. The Standards will take time to implement in State legislation but they are based on the former Code of Practice for Cattle and are consistent with the National Dairy Industry Animal Welfare Strategy. All dairy farmers should ensure they are meeting the Standards now. They may need to review current practices to ensure they comply with the law.

The animal welfare guidelines have been developed as additional recommended practices to inform welfare outcomes. The guidelines may or may not be relevant in different farming systems. These voluntary guidelines are designed to complement the Standards. Failure to comply with the guidelines is not a legal offence.

For more information, visit [www.animalwelfarestandards.net.au](http://www.animalwelfarestandards.net.au)

## National Dairy Industry Animal Welfare Strategy

To foster and encourage responsible animal husbandry and good animal welfare outcomes, the Australian dairy industry has in place a National Dairy Industry Animal Welfare Strategy. The industry strategy and recommended practices are consistent with the new *Australian Animal Welfare Standards and Guidelines for Cattle*.

## Monitoring and evaluation of animal welfare performance

The Animal Husbandry Survey has been conducted by Dairy Australia regularly since 2005 to monitor and evaluate various animal health and welfare practices undertaken on Australian dairy farms. The data gathered is used to identify where the industry requires more support and information, to inform future development of the National Dairy Industry Animal Welfare Strategy, as well as to track the uptake of recommended practices.

In future, the survey will monitor dairy farmers understanding and adoption of the new *Australian Animal Welfare Standards and Guidelines for Cattle*.

## Animal care key to a sustainable dairy industry

The Australian dairy industry has developed a whole-of-industry Sustainability Framework which aims to:

- > Enhance livelihoods across the industry
- > Improve community and animal wellbeing
- > Reduce our environmental impact

In 2013, the Australian Dairy Industry Council endorsed a series of targets and performance measures under the Sustainability Framework, including a target for animal welfare – “to provide best care for all animals”. To assess whether the industry is making progress against this target, the following performance measures have been established.

- I. 100% of industry complying with legislated animal welfare standards
- II. All of industry adopting relevant industry recommended practices for animal care
- III. 25% increase in the number of consumers who believe dairy farmers do a good job caring for animals

## 2. Principles for cattle welfare

Cattle in Australia are managed in environments that vary from extensive rangelands to intensively managed systems. In all cases, the people in charge of cattle are responsible for the welfare of the animals under their control. In achieving improved welfare outcomes envisaged by the standards, it is important that people responsible for animals have the necessary knowledge, experience and skills to undertake the various procedures and meet the requirements of the standards, in a manner that minimises the risk to cattle welfare.

Adherence to good animal husbandry principles is essential to meet the welfare requirements of animals. Good husbandry principles that also meet the basic physiological and behavioural needs of cattle include:

- > a level of nutrition adequate to sustain good health and welfare
- > access to sufficient water of suitable quality to meet physiological needs
- > social contact with other cattle
- > sufficient space to stand, lie and stretch their limbs and perform normal patterns of behaviour
- > handling facilities, equipment and procedures that minimise stress to the cattle
- > procedures to minimise the risk of pain, injury or disease
- > provision of appropriate treatment including humane killing if necessary
- > minimising the risk of predation
- > provision of reasonable precautions against extremes of weather and the effects of natural disasters
- > selection and breeding of cattle appropriate for the environment and the level of planned herd management to be provided
- > assessment of the need to undertake any husbandry procedures that may result in significant short-term pain against alternative strategies for the long-term welfare of the cattle
- > undertaking any husbandry procedures required for planned herd management in a manner that reduces the impact of these procedures and minimises risks to cattle welfare.

The term pain relief is used throughout this document to mean the reduction of behavioural and physiological responses by an animal to a painful stimulus to a level judged to be reasonable. Drugs are the common means by which pain relief is achieved; they act in various ways on the peripheral and central nervous systems and may be applied topically or by injection. The range of drugs available for use in cattle, and the effectiveness and duration of pain relief provided is often limited.

The assessment of pain is an inexact science. The types of pain and their perception are often not understood and are known to vary at different ages and between individuals. In considering the use of pain relief, cattle should be given the benefit of the doubt.



## 3. Standards

### 1. Responsibilities

Objective: A person knows their responsibilities for cattle welfare and is able to perform the required tasks to minimise the risk to the welfare of cattle

#### Standard (essential requirement)

**S1.1** A person must take reasonable actions to ensure the welfare of cattle under their care.

#### Guidelines (additional practices that may be relevant)

- G1.1** Elements of responsibility for cattle management should include:
- > understanding the standards and guidelines for cattle welfare
  - > obtaining knowledge of relevant animal welfare laws
  - > understanding cattle behaviour and use of low stress stock handling techniques
  - > planning and undertaking actions for the enterprise to meet the welfare standards and address contingencies that may arise
  - > assessing the quantity, quality and continuity of feed and water supply
  - > handling to minimise stress, and using handling aids, facilities and other equipment appropriately
  - > undertaking hygienic practices for husbandry procedures in a manner that minimises the risks to cattle welfare
  - > understanding and following chemical and drug treatment instructions for cattle
  - > identifying distressed, weak, injured or diseased cattle, and taking appropriate action
  - > maintaining appropriate records
  - > knowledge of local patterns of disease and disease prevention
  - > humanely killing cattle by appropriate methods, or seeking the assistance of someone who is capable and equipped to kill them humanely.
- G1.2** Agistment responsibilities should be documented, communicated and clearly understood by all parties involved.
- G1.3** Owners, managers and stockpersons should have an appropriate staff induction program, periodically review existing practices, and be aware of new developments and training relevant to the welfare of cattle.

## 2. Feed and water

Objective: Cattle have access to feed and water to minimise the risk to their welfare

### Standard (essential requirement)

**S2.1** A person in charge must ensure cattle have reasonable access to adequate and appropriate feed and water.

### Guidelines (additional practices that may be relevant)

#### Feed

- G2.1** Feed supply for cattle should minimise harmful metabolic and nutritional conditions, and be based on:
  - > body weight, and/or fat/body condition score
  - > extra demands associated with growth, pregnancy, lactation and exercise
  - > prevailing/predicted weather conditions.
- G2.2** Regular assessment should be made of the needs of the cattle in relation to the quantity and quality of feed and water.
- G2.3** Stocking rates and/or feed supplementation should be managed to maintain cattle in appropriate body condition.
- G2.4** Feed supplements should be carefully assessed for suitability and safety.
- G2.5** Major changes in diet should be introduced over an appropriate length of time and be closely monitored.
- G2.6** Shy feeders should be identified and managed appropriately.
- G2.7** Cattle access to contaminated and spoilt feed, toxic plants and harmful substances should be avoided or managed.
- G2.8** Self feeders should be checked, cleaned and maintained regularly.
- G2.9** An appropriate fat/body condition score system should be used as a guide for the monitoring and planned feeding of cattle.

#### Water

- G2.10** Cattle should have reasonable access to water at least daily.
- G2.11** Lactating cows, and all cattle in hot weather, should have access to water at least twice daily.
- G2.12** Calves removed from cows should have access to water at all times.
- G2.13** Where the water quality is known to be variable, it should be monitored regularly for harmful substances and managed to protect cattle welfare.
- G2.14** Water infrastructure should be inspected and maintained to allow effective provision of water in a reasonable time.
- G2.15** Medicated water systems should be closely monitored to ensure cattle are not overdosed.
- G2.16** Assessment of water requirements for construction of cattle-watering facilities should consider:
  - > daily requirements and total annual requirement
  - > flow rates needed for peak, short-term demand
  - > constructed to prevent temperature build-up.

#### Calves and weaners

- G2.17** Calves should receive adequate colostrum within 12 hours of birth, with the first feed occurring as soon as possible.
- G2.18** Weaned calves should be provided with appropriate energy and protein supplements.



### 3. Risk management of extreme weather, natural disasters, disease, injury and predation

Objective: Cattle are managed to minimise the impact of threats to their welfare including, extremes of weather, natural disasters, disease, injury and predation

#### Standard (essential requirement)

- S3.1** A person in charge must take reasonable actions to ensure the welfare of cattle from threats, including extremes of weather, drought, fires, floods, disease, injury and predation.
- S3.2** A person in charge must ensure the inspection of cattle at intervals, and at a level appropriate to the production system and the risk to the welfare of cattle.
- S3.3** A person in charge must ensure appropriate treatment for sick, injured or diseased cattle at the first reasonable opportunity.

#### Guidelines (additional practices that may be relevant)

##### *Weather and natural disasters*

- G3.1** Plans to minimise risks to cattle welfare should include:
  - > emergency contact details
  - > breakdown or mechanical failure affecting feed, water, ventilation or milking
  - > adverse weather — specifically, conditions that predispose cattle to heat or cold stress
  - > flood and fire
  - > insufficient supply of feed or water
  - > disease outbreak or injury
  - > emergency killing and disposal
  - > other issues specific to the enterprise or cattle being managed.
- G3.2** Drought strategies should be prepared in advance and then progressively implemented before paddock feed runs out, and may include:
  - > relocation
  - > supplementary feeding
  - > use of stock containment areas
  - > sale or agistment
  - > segregation according to risk
  - > early weaning
  - > humane killing.
- G3.3** If practical, cattle should be provided with adequate shelter to minimise risks to welfare during inclement weather.
- G3.4** Cattle handling should be minimised during extremely hot weather.

##### *Disease and injury*

- G3.5** Unexplained disease and deaths should be investigated to formulate appropriate remedial and preventive actions.
- G3.6** Appropriate veterinary advice on cattle disease diagnosis, prevention or treatment should be sought as required.
- G3.7** Cattle should be vaccinated to protect against likely infectious diseases if there is a significant risk to the welfare of cattle.
- G3.8** Treatments and vaccines should be administered in accordance with directions. Records of treatments should be kept.
- G3.9** Consideration should be given to selecting cattle that are suitable for and adapted to the production environment, and that are resistant to parasites and specific diseases relevant to the environment.
- G3.10** Internal and external parasites should be monitored and controlled.
- G3.11** Downer cattle should be assessed and treated without delay.

##### *Predators*

- G3.12** Predator control programs should be implemented where predation is a significant risk to the welfare of cattle.

## 4. Facilities and equipment

Objective: A person knows their responsibilities for cattle welfare and is able to perform the required tasks to minimise the risk to the welfare of cattle

### Standard (essential requirement)

**S4.1** A person in charge must take reasonable actions in the construction, maintenance and operation of facilities and equipment to ensure the welfare of cattle.

### Guidelines (additional practices that may be relevant)

- G4.1** Facility construction or modification should take into account:
- > cattle behaviour
  - > topography (location and drainage)
  - > flood and fire risk
  - > climate
  - > purpose/length of confinement
  - > space
  - > feed and water space requirements
  - > shade/shelter
  - > surface materials
  - > cleaning and waste disposal.
- G4.2** Passage ways, races and entrances should be designed to take advantage of cattle behaviour and to reduce stress during movement through facilities. Visual barriers should be used as appropriate. Changes in levels, poor lighting, narrow or uneven passages, and awkward turns should be avoided.
- G4.3** The surfaces of yards, pens, tracks and laneways should be constructed and maintained to minimise the risk of lameness, slips and falls.
- G4.4** Facilities should be free of protrusions and obstacles that may cause injury.
- G4.5** Water sprinklers should be used to reduce dust levels and provide cooling during handling in yards as appropriate.

### Housed cattle

#### Note:

*Includes relatively low numbers of show cattle, bulls in preparation, cattle housed for research and dairy cattle housed in loose housing systems or free stalls, and at breeding establishments in single pens or small groups.*

- G4.6** Faeces and urine accumulations should be removed regularly.
- G4.7** Housed systems should have hospital pens with a comfortable lying surface for sick or injured cattle, and the means to move downer cows to the hospital pen.
- G4.8** A normal diurnal pattern of lighting should be provided for indoor cattle.
- G4.9** Cattle should have the opportunity for appropriate exercise each day.
- G4.10** Air should be of acceptable quality with respect to dust, chemicals and smells. Continuous periods of detectable smoke should be avoided.
- G4.11** Concrete flooring in rest areas should be covered by an appropriate depth of bedding material.
- G4.12** Fire alarms and adequate fire fighting equipment should be fitted and maintained in all indoor housing systems.



## 5. Handling and management

Objective: Handling and management practices are appropriate and minimise the risk to the welfare of cattle

### Standard (essential requirement)

- S5.1** A person must handle cattle in a reasonable manner.
- S5.2** A person handling cattle must not:
- 1) lift cattle off the ground by only the head, ears, horns, neck or tail unless in an emergency; or
  - 2) drop cattle except to land and stand on their feet; or
  - 3) strike, punch or kick, cattle in an unreasonable manner; or
  - 4) drag cattle that are not standing, except in an emergency, for the minimum distance to allow safe handling, lifting, treatment or humane killing; or
  - 5) deliberately dislocate or break the tail of cattle; or
  - 6) use metal pellets to wound cattle as an aid for mustering.
- S5.3** A person must not drive cattle to the point of collapse.
- S5.4** A person must consider the welfare of cattle when using an electric prod, and must not use it:
- 1) on genital, anal, or udder areas of cattle; or
  - 1b) on facial areas, unless cattle welfare is at risk; or
  - 2) on calves less than three months old, unless their welfare is at risk; or
  - 3) on cattle that are unable to move away; or
  - 4) in an unreasonable manner on cattle.
- S5.5** A person in charge of a dog, must have the dog under effective control at all times during the handling of cattle.
- S5.6** A person in charge must ensure a dog is muzzled when moving calves less than 30 days old that are without cows.
- S5.7** A person in charge must ensure tethered cattle are able to exercise daily.

### *Electro-immobilisation*

- S5.8** A person must only use electro-immobilisation on cattle if:
- 1) the device is approved for use in the jurisdiction; and
  - 2) the cattle are more than six months old; and
  - 3) the operator is trained or it is done under direct supervision of a veterinarian or a trained person; and
  - 4) alternative restraining methods are not adequate to hold cattle sufficiently for the procedure being performed.
- S5.9** A person must not use electro-immobilisation on cattle as an alternative to pain relief.

### *Identification*

- S5.10** A person must use the most appropriate and least painful method to identify cattle that is applicable to the jurisdiction and the production system.
- S5.11** A person must not place a permanent brand on the head of cattle.

## **Guidelines (additional practices that may be relevant)**

### **Handling and management**

- G5.1** Cattle should be handled quietly and calmly, taking into account their flight zone and natural herding instinct to minimise stress during handling. Allowances should be made for cattle with special needs such as young calves, lame cattle and bulls.
- G5.2** Calves should be weaned in an appropriate and secure area. Calves should be trained to become accustomed to regular handling practices.
- G5.3** Under paddock or extensive systems, the frequency of inspection should take into consideration:
- > feed availability
  - > water supply
  - > age
  - > class
  - > pregnancy status
  - > weather
  - > disease risk
  - > predator risk
  - > recent management procedures.
- G5.4** The degree and duration of restraint for cattle should be the minimum necessary to allow a procedure to be done efficiently and safely.
- G5.5** Handling aids such as drafting canes, flappers, flags, rattles or other noise makers should be used in preference to other strike objects to move cattle.
- G5.6** Use of dogs and electric prodders should be limited to the minimum necessary.
- G5.7** Cattle being moved should be rested or allowed to slow if they show signs of exhaustion.
- G5.8** Calves less than 30 days old should be handled with care because they may not have developed following behaviours, and may also become easily fatigued.
- G5.9** Cattle should be returned to feed and water as soon as possible after holding in yards.
- G5.10** Wounds should be treated as soon as practicable to prevent infection and flystrike.
- G5.11** Cattle should be closely supervised when dipping to prevent drowning.
- G5.12** Care should be taken when drenching cattle to avoid inhalation of the drench or bolus, and damage to the mouth and throat.
- G5.13** Hoof paring should be limited to avoid damage to soft tissue.
- G5.14** Permanent or long term tethering should be avoided.

- G5.15** A person tethering cattle should:
- > ensure the tether is long enough to allow adequate exercise and grazing
  - > ensure cattle have adequate shelter
  - > ensure the tether does not become entangled
  - > inspect the cattle a minimum of once per day
  - > not tether cattle by the leg or foot.
- G5.16** Instruments should be maintained and in good working order.
- G5.17** Post-operative herd management should ensure effective mothering-up of calves at foot after the procedure is completed.
- G5.18** Unnecessary cattle handling should be avoided during extreme weather.
- G5.19** Cattle should have sufficient time to become aware of electric fences, and space to move away.
- G5.20** Insect worry should be managed by implementing control measures where appropriate.

### **Electro-immobilisation**

- G5.21** Any benefits from using electro-immobilisation on cattle should be judged against its aversive effects.
- G5.22** The lowest setting of current for electro-immobilisation that produces restraint should be selected.
- G5.23** Operators using electro-immobilisation should undertake formal training and assessment to a high level of competency.
- G5.24** Electro-immobilisation should not be used for routine procedures as a substitute for feasible upgrading of handling facilities.

### **Identification**

- G5.25** Hot-iron branding of wet cattle should be avoided.
- G5.26** The correct time period of application and temperature of the iron should be used when hot-iron branding.
- G5.27** Hot-iron branding of weak or extremely thin cattle should be avoided.
- G5.28** Care should be taken with the concurrent application of volatile pour-on treatments when hot-iron branding or applying the electric prodder.
- G5.29** Ear tagging and tattooing should be done in a way that minimises the risk of infection and tearing of the ear.
- G5.30** Ear marking and tattooing instruments should be sharp and clean, with relevant hygienic techniques followed.

## 6. Castration, dehorning and spaying

Objective: Castration, dehorning and spaying are done only when necessary and in a manner that minimises the risk to the welfare of cattle, particularly pain and distress

### Standards (essential requirements)

**S6.1** A person castrating or dehorning cattle must have the relevant knowledge, experience and skills, or be under the direct supervision of a person who has the relevant knowledge, experience and skills.

#### *Castration*

**S6.2** A person in charge must ensure the use of appropriate pain relief when castrating cattle, unless cattle are:

- 1) less than six months old; or
- 2) less than 12 months old if at their first yarding and where the later age is approved in the jurisdiction.

**S6.3** A person must use appropriate tools and methods to castrate cattle.

#### *Disbudding and dehorning*

**S6.4** A person in charge must ensure the use of appropriate pain relief when dehorning cattle, unless cattle are:

- 1) less than six months old; or
- 2) less than 12 months old if at their first yarding and where the later age is approved in the jurisdiction.

**S6.5** A person must consider the welfare of the calf when using caustic chemicals for disbudding the calf, and must only use it if the calf:

- 1) is less than fourteen days old; and
- 2) can be segregated from its mother for four hours after treatment; and
- 3) can be kept dry for 12 hours after treatment; and
- 4) is not wet.

**S6.6** A person must use appropriate tools and methods to dehorn cattle and disbud calves.

#### *Spaying*

**S6.7** A person spaying a cow must be a veterinarian or, if permitted in the jurisdiction, be accredited or be under the direct supervision of a veterinarian or a person who is accredited.

**S6.8** A person in charge must ensure the use of appropriate pain relief when performing the flank approach for spaying or webbing of cattle.

**S6.9** A person must not use vaginal spreaders to spay small or immature cattle.

### **Guidelines (additional practices that may be relevant)**

- G6.1** Surgical procedures should only be done if there are no alternatives and the procedure results in either:
- > life-time benefits to cattle welfare, or
  - > better herd management, or
  - > a reduced work health and safety risk.
- G6.2** Surgical procedures should be done with pain relief. Operators should seek advice on current pain minimisation strategies.
- G6.3** Surgical procedures should be planned with consideration of the health and age of cattle, weather, staff availability and facilities, including the use of temporary or permanent yards.
- G6.4** Good hygiene practices should be implemented in relation to facilities, hands, handling and instruments. Disinfectant should be used and changed frequently.
- G6.5** Effective but not excessive restraint should be used to minimise movement, and to enable the procedure to be done quickly and efficiently.
- G6.6** Equipment for restraining cattle should only be used:
- > for the minimum time necessary, and
  - > with the minimum restraint necessary, and
  - > if it is in good working order.
- G6.7** Calves should be separated from their mothers for the shortest possible time unless they are to be hand-reared or weaned onto a solid diet.
- G6.8** Bleeding from surgical wounds should be minimised by selecting an appropriate method, preventing overheating of calves and allowing them to settle after mustering.
- G6.9** Infection should be minimised by avoiding muddy or dusty yards, and wet weather.
- G6.10** Surgical procedures should not be undertaken during extreme weather.
- G6.11** Cattle should be inspected regularly and with minimal disturbance for signs of post-operative complications during the healing process, and appropriate action taken.

### **Castration**

- G6.12** A person should use the most appropriate tools and least painful method to castrate cattle that is applicable to the production system.
- G6.13** Cattle to be castrated or made cryptorchid should be as young as possible (less than 12 weeks old) and the procedure should be done before the cattle are weaned.
- G6.14** Calves should be more than 24 hours old when castrated.
- G6.15** Calves less than two weeks old should be castrated by the rubber-ring method in preference to the cutting method.
- G6.16** Calves more than two weeks old should be castrated by the cutting method in preference to the rubber-ring and tension-band methods.
- G6.17** Use of rubber rings or tension bands on calves should ensure that the correct position and tension is achieved to block the arterial blood flow.
- G6.18** The incision for surgical castration should be of sufficient size, and extend to the base of the scrotum, to allow effective drainage and reduce the risk of infection.

### **Disbudding and dehorning**

- G6.19** Preference should be given for breeding of naturally polled cattle.
- G6.20** Disbudding should be done in preference to dehorning.
- G6.21** Hot-iron cautery should be used in preference to excision methods for disbudding calves.
- G6.22** Calves should be disbudded or dehorned as young as possible.
- G6.23** The hair around horn buds should be clipped before using caustic chemicals for disbudding.
- G6.24** Tipping should only remove a solid, nonvascular portion of the horn, and result in a blunt horn end.
- G6.25** Horn regrowth or a scur that has a blunt horn end should not be dehorned or tipped.

### **Spaying**

- G6.26** Passage webbing or the dropped ovary technique (DOT) should be used in preference to other surgical methods for cattle spaying, where possible.
- G6.27** In mature cows where it is considered there is a greater risk of haemorrhage, webbing by the passage approach should be used where possible.



## 7. Breeding management

Objective: Breeding and management practices are appropriate to minimise the risk to the welfare of cattle

### Standards (essential requirement)

- S7.1** A person performing artificial breeding procedures on cattle must have the relevant knowledge, experience and skills, or be under the direct supervision of a person who has the relevant knowledge, experience and skills.
- S7.2** A person performing artificial breeding procedures on cattle must take reasonable actions to minimise pain, distress or injury.
- S7.3** A person in charge must ensure the inspection of calving cattle at intervals appropriate to the production system and the level of risk to the welfare of cattle.
- S7.4** A person in charge must ensure calving induction is done under veterinary advice.
- S7.5** A person in charge must ensure that induced calves receive adequate colostrum or be humanely killed at the first reasonable opportunity, and before they are 12 hours old.

### Guidelines (additional practices that may be relevant)

- G7.1** Persons responsible for breeding management should have an understanding of the reproduction and behaviour of both the cow and the bull.

#### *Cows and calves*

- G7.2** In the last 4–6 weeks of pregnancy, management practices should minimise stress on cows and reduce metabolic diseases.
- G7.3** Calving should occur in a sheltered and well-drained area where surveillance is possible. Unless birthing assistance is required, disturbance of cows should be avoided.
- G7.4** Care should be taken to minimise calving difficulties by adopting suitable management practices, which may include:
  - > selecting heifers for mating only when they have reached the minimum target weight for the breed
  - > avoiding overfeeding or underfeeding pregnant cows and heifers
  - > avoiding mating heifers to bulls known to sire large birth weight calves
  - > supervising cows and heifers close to calving, where possible, and early intervention if required
  - > selecting bulls rated for calving ease.
- G7.5** Cows that receive severe injuries during calving or that are affected by a severe adverse outcome (prolapsed uterus, unable to remove calf) should receive urgent treatment, or be humanely killed without delay.
- G7.6** Weak or orphaned calves with very little chance of survival should be humanely killed without delay.
- G7.7** A cow's body condition should be considered when deciding when to wean the calf.

#### *Induction of calving*

- G7.8** Herd management strategies should be adopted to minimise or eliminate the need to induce calving.
- G7.9** Cows subject to an induction program should be inspected twice daily. Any cow requiring calving assistance or treatment should receive this intervention without delay.
- G7.10** Calving induction should only be done when necessary for the welfare of the individual cow or calf.

#### *Bulls*

- G7.11** Bulls should be checked at regular intervals for injuries and disease.
- G7.12** The welfare of teaser cattle used in bull-serving ability tests should be closely monitored.

## 8. Calf-rearing systems

Objective: Calf-rearing systems are appropriate to minimise the risk to their welfare

### Standards (essential requirement)

- S8.1** A person in charge must ensure the feeding and inspection of calves in calf rearing systems are performed daily.
- S8.2** A person in charge must ensure that calves housed in pens can turn around, lie down and fully stretch their limbs.
- S8.3** A person in charge must ensure sufficient iron in the diet to prevent anaemia in calves in veal production systems.
- S8.4** A person in charge must not allow the faeces and urine of calves housed in indoor systems to accumulate to the stage that compromises calf health and welfare.

### Notes:

1. Calves may be housed individually for disease control purposes.
2. Sheds are not enclosed to the extent that ventilation or temperature control is an issue.
3. Bobby calf transport is covered in the *Australian Animal Welfare Standards and Guidelines – Land Transport of Livestock*.

### Guidelines (additional practices that may be relevant)

- G8.1** Calves removed from cows should receive adequate colostrum within 12 hours of birth, with the first administration occurring as soon as possible.
- G8.2** The quality of colostrum should be checked.
- G8.3** If artificial feeding of new-born calves is required, the calves should be supervised until they are successfully trained to self-feed.
- G8.4** Where a cow is being restrained to suckle or adopt an orphaned calf, the cow should be observed to ensure that the cow is not becoming distressed and that the calf is sucking.
- G8.5** Calves should be grouped by size and age to reduce competition, and facilitate observation and management.
- G8.6** Where there are two or more calves on a property, calves housed in single pens should be able to see neighbouring calves.
- G8.7** Calves should be kept in the company of other calves from three weeks old.
- G8.8** Liquid feed should be fed at the appropriate temperature.
- G8.9** Solid feeds should be gradually introduced. Roughage should be provided to encourage the development of the rumen function from three weeks old.
- G8.10** Feeding equipment should be hygienically maintained.
- G8.11** Calves that become sick should be segregated and treated immediately.
- G8.12** Floor area of 1.5–2.0 m<sup>2</sup> should be provided for each calf in group pens to permit self-grooming and prevent overcrowding. An area of 2.0m<sup>2</sup> should be provided for calves in individual pens.
- G8.13** Calves should be raised in an environment that is:
  - > clean
  - > dry
  - > well drained
  - > provided with sufficient bedding
  - > draught free and well ventilated
  - > free of projections that may cause injury.
- G8.14** Action to protect against extremes of hot or cold weather should begin as soon as it is expected that conditions will deteriorate.
- G8.15** Very early weaning of calves should be supported by a high protein diet.

## 9. Dairy management

Objective: Dairy cattle are managed to minimise the risk to their welfare

### Standards (essential requirement)

- S9.1** A person in charge must ensure the daily inspection of lactating dairy cows.
- S9.2** A person in charge must implement appropriate actions to minimise heat stress of cattle.
- S9.3** A person must tail dock cattle only on veterinary advice and only to treat injury or disease.
- S9.4** A person in charge must ensure dairy cattle that are kept on feed pads for extended periods have access to a well-drained area for resting.

### Notes:

1. The Australian dairy production system is almost entirely outdoors and pasture based.
2. Bobby calf transport is covered in the Australian Animal Welfare Standards and Guidelines — Land Transport of Livestock.

### Guidelines (additional practices that may be relevant)

- G9.1** Milking machinery and equipment should be regularly tested and maintained.
- G9.2** The milking technique should minimise the risk of discomfort, injury and disease.
- G9.3** A lameness management strategy should be implemented and should include practices for prevention, early detection and effective treatment.
- G9.4** Lameness assessment and/or hoof inspections should be conducted regularly and hoof trimming carried out when necessary.
- G9.5** A mastitis management strategy should be implemented and should include practices for prevention, early detection and effective treatment.
- G9.6** During hot weather, access to drinking water should be available at all times.
- G9.7** Dairy operators should develop, document and implement routine management procedures to reduce the excessive heat load risks identified before they occur.
- G9.8** If it is deemed necessary to remove extra teats, the procedure should be done expertly and hygienically as soon as they can be identified.
- G9.9** Calving in free stalls should be avoided.



## 10. Beef feedlots

Section 10 applies to Beef feedlots and the standards and guidelines here are not relevant for dairy farmers.

## 11. Humane killing

Objective: Where it is necessary to kill cattle, it is done promptly, safely and humanely

### Standards (essential requirements)

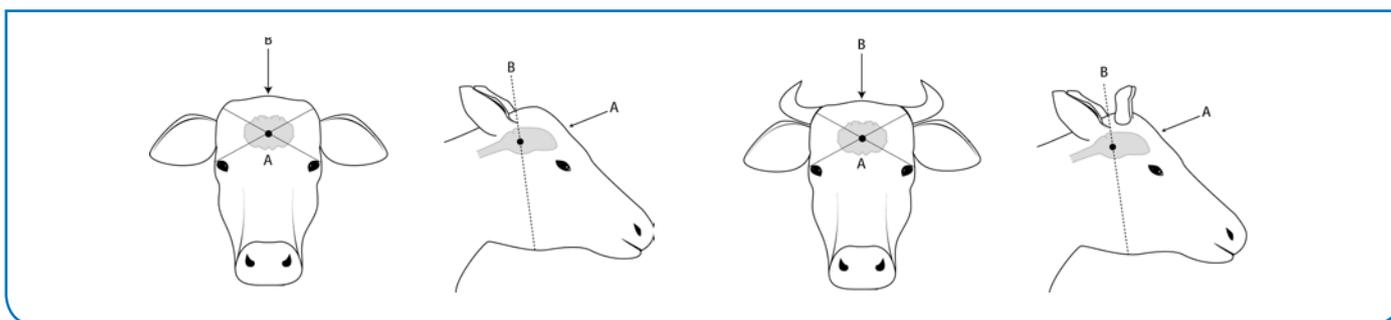
- S11.1** A person in charge must ensure killing methods for cattle result in rapid loss of consciousness, followed by death while unconscious.
- S11.2** A person must have the relevant knowledge, experience and skills to be able to humanely kill cattle, or be under the direct supervision of a person who has the relevant knowledge, experience and skills, unless:
- 1) the cattle are suffering and need to be killed to prevent undue suffering; and
  - 2) there is an unreasonable delay until direct supervision by a person who has the relevant knowledge, experience and skills becomes available.
- S11.3** A person in charge of cattle suffering from severe distress, disease or injury that cannot be reasonably treated must ensure that the cattle are killed at the first reasonable opportunity.
- S11.4** A person killing cattle must take reasonable action to confirm the animal is dead.
- S11.5** A person killing a calf by a blow to the forehead must first ensure that the calf is less than 24 hours old and only use this method when no other humane killing methods are reasonably available.

### Guidelines (additional practices that may be relevant)

#### Recommended humane killing methods for cattle

- G11.1** The recommended methods for humane killing of adult cattle and calves is use of close-range firearm to the brain or a captive bolt to the brain (see figure 11.1).

**Figure 11.1** Recommended position and direction of fire for the humane killing of cattle



#### Notes:

1. (A) indicates the frontal method, (B) indicates the poll method. For blunt trauma in calves less than 24 hours old, use position A
- In general, firearms are the most acceptable method of humane killing for cattle. The distance between the end of the firearm barrel and the cattle is expected to be between 10 and 100 cm. The only approved target organ is the brain. Before firing, the cattle's head must be still.
- There are two effective aiming points at the head: frontal (A) and poll (B). The frontal method is the preferred target site.
- For the frontal method (A), in polled cattle, the firearm or captive bolt should be directed at a point midway across the forehead where two imaginary lines from the topside of the base of the ears and top of the eyes intersect, or slightly above this point.

In horned cattle, aim at a point midway across the forehead at the intersection of imaginary lines that join from the top of each eye with the opposite horn.

The line of fire should be aimed into the skull towards the centre of the brain or spinal cord to target the brainstem which is midway along an imaginary line drawn between the base of the ears.

For the poll method (B), cattle are shot through the skull just behind the base of the horns. The line of fire should be directed slightly forward of the angle of the jaw of the cow, depending on the point of impact, to target the brainstem.

2. The diagrams are representative and individual anatomical differences in cattle to be killed must be taken into account.

**G11.2** The preferred option for humane killing should be a firearm directed to the frontal position of the head. The brainstem should be targeted and it lies midway along an imaginary line drawn between the base of the ears.

**Note:**

*For adult cattle, a rifle should deliver at least the muzzle energy of a standard 0.22 magnum cartridge. For larger animals and bulls, 0.30 calibre high-power cartridges are recommended. For calves, a rifle should deliver at least the muzzle energy of a standard 0.22-long rifle cartridge.*

**Confirming death in cattle after humane killing**

**G11.3** Three or more signs should be observed to determine whether the method used for humane killing has caused death.

**Note:**

*Signs of death include:*

- > *loss of consciousness and deliberate movement including eye movement*
- > *absence of a corneal 'blink' reflex when the eyeball is touched, or*
- > *maximum dilation of the pupil*
- > *absence of rhythmic respiratory movements for at least five minutes*

**Firearms**

**Note:**

*Firearms energy specifications are as follows:*

- > *The standard 0.22-long rifle cartridge means the use of any 0.22 rim-fire cartridge that produces in excess of 100 foot pounds of energy at the muzzle.*
- > *The standard 0.22 magnum cartridge means the use of any 0.22 rim-fire magnum cartridge that produces in excess of 300 foot pounds of energy at the muzzle.*
- > *The centre-fire cartridge means the use of any centre-fire cartridge that produces in excess of 1000 foot pounds of energy at the muzzle.*

**Captive bolt devices**

**Note:**

*Captive bolt use on cattle should be in the frontal or poll positions and be accompanied by appropriate restraint followed by an effective procedure, if necessary, to ensure death.*

*The captive bolt stunner should be pressed firmly on the head before being discharged, and should be positioned as described in the approved positions for cattle. The temporal position should be avoided.*

*For penetrating captive bolt stunners, the cartridge power should be appropriate to the class of cattle. Non-penetrating captive bolt stunners are not recommended.*

*Operators should make sure that charges intended for use are appropriate for the class of cattle.*

*Captive bolts should be regularly cleaned and maintained in optimal working condition according to the manufacturer's instructions.*

**Bleeding out (exsanguination)**

**G11.4** Bleeding out of unconscious cattle should be done using a suitable, sharp knife

**Note:**

*Bleeding out (exsanguination) is done by cutting the main blood vessels at the top of the heart via the thoracic inlet (chest stick) or in the neck (neck cut).*

## 4. Dairy industry initiatives to support cow care

The Australian dairy industry has a range of programs and activities which build knowledge and improve the care of dairy. Initiatives include:

- > **On-farm assurance programs** – incorporate recording, analysis, and auditing of animal health and welfare as part of the production of high quality milk and for food safety purposes.
- > **Cool Cows** – assists dairy farmers to manage the risk of heat stress in their herds.  
Visit [www.coolcows.com.au](http://www.coolcows.com.au)
- > **Grains2Milk** – addresses issues associated with feeding concentrates to dairy cows in order to minimise the risk of animal health and welfare issues such as acidosis and laminitis.  
Visit [www.dairyaustralia.com.au](http://www.dairyaustralia.com.au)
- > **CowTime** – provides farmers with options to make milking more efficient and easier, and reduce stress for cows in the dairy.  
Visit [www.cowtime.com.au](http://www.cowtime.com.au)
- > **FutureDairy** – assesses animal behaviours in automatic milking systems.  
Visit [www.futuredairy.com.au](http://www.futuredairy.com.au)
- > **InCalf** – helps farmers improve the fertility of their cows, reducing the need for interventions such as calving induction.  
Visit [www.dairyaustralia.com.au/Animal-management/Fertility/About-InCalf](http://www.dairyaustralia.com.au/Animal-management/Fertility/About-InCalf)
- > **Countdown 2020** – helps farmers manage mastitis in their herds improving herd health and cow comfort.  
Visit [www.dairyaustralia.com.au](http://www.dairyaustralia.com.au)
- > **Dairy Futures CRC** – developing dairy cattle breeding values and genomic markers with implications for animal welfare such as calving ease, mastitis resistance and longevity.  
Visit [www.dairyfuturescrc.com.au](http://www.dairyfuturescrc.com.au)
- > **Rearing Healthy Calves** – provides farmers with information and practical recommendations for successful calf management.  
Visit [www.dairyaustralia.com.au](http://www.dairyaustralia.com.au)
- > **Australian Dairy Herd Improvement Scheme** – provides farmers with the information they need to make breeding decisions based on traits associated with improved animal welfare.  
Visit [www.adhis.com.au](http://www.adhis.com.au)
- > **National Centre for Dairy Education Australia** – ensures trainees and farmers have access to formal training courses and extension workshops in animal husbandry, a key component of which is health and welfare.  
Visit [www.ncdea.edu.au](http://www.ncdea.edu.au)
- > **Animal health and biosecurity programs** – addresses disease and illness problems such as the prevention, timely identification and treatment of diseases and the management of downer cows.

More information about these initiatives can be found on the Dairy Australia website at [www.dairyaustralia.com.au](http://www.dairyaustralia.com.au)  
Links to relevant State and Territory legislation will be included on the website when finalised.



## 5. Glossary of terms

### access to water

A reasonable opportunity for cattle to be able to drink water of a suitable quality and quantity to maintain their hydration.

### animal welfare

The state of an animal and how well it is coping with the conditions in which it lives.

### artificial breeding procedures

Includes artificial insemination, oocyte collection, embryo transfer, semen collection including by artificial vagina or electro-ejaculation, and pregnancy diagnosis on cattle.

### beef feedlot

A confined yard area with watering and feeding facilities where cattle are completely hand or mechanically fed for the purpose of beef production.

### bleeding out

Loss of blood caused by cutting the major blood vessels, usually in the neck or at the base of the heart via the thoracic inlet.

### calf

A bovine animal less than six months old.

### calving induction

The process of initiating calving by hormonal treatment in a cow three weeks or more before the expected full-term calving date.

### castration

The removal or disruption of the function of the testes by excision, or by constriction and/or crushing of the testicular blood supply (using a rubber ring, tension band or burdizzo clamp) or by dysfunction created by the cryptorchid method.

### Notes:

1. *Immuno-castration is not included in this definition but is not considered a welfare concern.*
2. *For the purpose of this document, cryptorchidism is effectively considered to be castration.*

### cattle

All members of the genus *Bos*.

### caustic chemicals

Chemicals that when applied will burn or denature undamaged skin. Does not include veterinary treatments.

### class

A group of a livestock species defined by age, size or sex. Lactating livestock with young at foot are considered as a single class.

### construction

Nature of facilities or equipment including the design, layout, installation, assembly of the facilities and the materials of which they are made.

### cow

An individual female of the genus *Bos*.

### dehorning

The removal of attached horns.

### direct supervision

A person (the supervised person) is acting under the direct supervision of another person (the supervisor) if the supervisor:

- (a) provides instructions and guidance to the supervised person in relation to the subject activity; and
- (b) oversees and evaluates the performance of the activity by the supervised person; and
- (c) is contactable by the supervised person; and
- (d) is supervising the person in accordance with paragraphs (a), (b) and (c) above; and
- (e) is on the same premises as the supervised person while the subject activity is being undertaken; and
- (f) is able to immediately render assistance to the supervised person, if required, at any time during which the subject activity is being undertaken.

### disbudding

Removal of an area of skin including the horn bud in a young calf prior to solid attachment of the horn bud to the skull.

### dropped ovary technique (DOT)

A technique for spaying cattle that involves dropping ovaries into the abdomen by using a prescribed instrument to:

- (a) enter the abdomen by piercing the wall of the vagina with the instrument's spearhead; and
- (b) place each ovary, by rectal manipulation, in the oval hole in the instrument's spearhead; and
- (c) sever the ovaries with the sharp edge of the slit in the instrument's spearhead by retracting the instrument.

### drought

A severe feed and/or water shortage following prolonged periods of abnormally low rainfall not expected in the seasonal cycles.

### earmarking

The removal by cutting of a registered, shaped portion of the ear with earmarking pliers.

### effective control

In relation to working dogs, 'under control' means that they are fully responsive to the commands of a stockperson at all times while mustering or handling livestock.

### electro-immobilisation

The use of pulsed, low-frequency electrical current to restrain an animal. The process produces tetanic contractions of skeletal muscles and therefore voluntary movement is not possible. The process does not produce pain relief.

### emergency

Where animal welfare or human safety may otherwise be compromised.

#### excessive heat load action plan (EHLAP)

A written contingency plan to address excessive heat load conditions for a feedlot operation.

Note: These are audited every year for NFAS feedlots.

#### extremes of weather

Temperature and climatic conditions (e.g. rain, hail, snow, wind, humidity and heat) that individually or in combination are likely to predispose cattle to heat or cold stress.

#### facilities

Any yard, raceway, ramp, crush, building or enclosure used for the purposes of housing or handling cattle, including portable facilities and equipment.

Does not include a paddock or laneway with conventional wire fencing.

Fences yards, sheds, raceways, feed and water troughs, portable yards, ramps, and equipment including dips and sprays.

#### flank approach

The incision of the skin and tissue layers on the left side of the cow to gain access to the abdominal cavity.

#### free stalls

Can be open-air, partially or fully enclosed structures in which dairy cattle are housed and provided with feed and water. They can be used to house dairy cattle for extended periods and include a bedding area for cattle to lie down, and possibly a loafing area for cattle to stand. The term 'free stall' refers to the bedding area where cattle are allocated specific cubicles (stalls), which they may enter to lie down.

#### heat stress

When the response by animals to hot conditions above their thermo-neutral limit (heat load) exceeds the ability of their behavioural, physiological or psychological coping mechanisms.

#### inspection

The visual check of the health and welfare of cattle on an individual or herd basis.

#### lift

'Lifting off the ground'. Handling of the head, neck, horns, ears or tail to control or steady an animal in a supported lift or other manoeuvre, is permitted where the major effort is whole body support, and not using one or a combination of the above body parts for the major effort.

#### pain relief

The administration of drugs that reduce the intensity and duration of a pain response.

#### shy feeder

Cattle in a feedlot that do not eat and drink enough.

#### spaying

The removal of the ovaries by excision, or disruption of the function of the ovaries by removal of part of the fallopian tubes.

Note: Immuno-spaying is not included in this definition and is not considered a welfare concern.

#### supervision

A person (the supervised person) is acting under the supervision of another person (the supervisor) if the supervisor:

- (a) provides instructions and guidance to the supervised person in relation to the subject activity; and
- (b) oversees and evaluates the performance of the activity by the supervised person; and
- (c) is contactable by the supervised person.

See 'direct supervision'.

#### tail dock or docking

The removal of a portion of a cow's tail, or actions that cause the loss of a section of the tail. It does not include any trimming of the switch hairs (the bush).

#### tether or tethering

The securing of an animal to an anchor point to confine it to a desired area. It is not short-term tying up or hobbling.

#### weaning

When liquid feed is no longer provided to the calf.

#### webbing

Spaying by removing a short length of the fallopian tubes. The ovaries are not affected. Existing pregnancy is usually maintained.

#### yarding

The process of putting cattle into a cattle yard.

## 6. Useful contacts

For more information, visit [www.animalwelfarestandards.net.au](http://www.animalwelfarestandards.net.au)

### **Animal Health Australia**

Tel: 02 6232 5522

[www.animalwelfarestandards.net.au](http://www.animalwelfarestandards.net.au)

### **Australian Dairy Farmers**

Tel: 03 8621 4200

[www.australiandairyfarmers.com.au](http://www.australiandairyfarmers.com.au)

### **Dairy Australia**

Tel: 03 9694 3777

[www.dairyaustralia.com.au](http://www.dairyaustralia.com.au)

### **State Dairy Farmer Organisations**

#### **NSW Farmers Association**

Tel: 02 9478 1000

[www.nswfarmers.org.au](http://www.nswfarmers.org.au)

#### **Queensland Dairyfarmers' Organisation**

Tel: 07 3236 2955

[www.dairypage.com.au](http://www.dairypage.com.au)

#### **South Australian Dairy Farmers Association**

Tel: 08 8293 2399

[www.sada.asn.au](http://www.sada.asn.au)

#### **Tasmanian Farmers and Graziers Association**

Tel: 03 6332 1800 / 1800 154 111 (within Tasmania)

[www.tfga.com.au](http://www.tfga.com.au)

#### **United Dairy Farmers of Victoria/Victorian Farmers Federation**

Tel: 1300 882 833

[www.vff.org.au](http://www.vff.org.au)

#### **WAFarmers**

Tel: 08 9486 2100

[www.wafarmers.org.au](http://www.wafarmers.org.au)

### **Regional Development Programs**

#### **DairySA**

Tel: 08 8766 0127

[www.dairysa.com.au](http://www.dairysa.com.au)

#### **DairyTAS**

Tel: 03 6432 2233

[www.dairytas.com.au](http://www.dairytas.com.au)

#### **DairyNSW**

Tel: 0412 825 466

[www.dairynsw.com.au](http://www.dairynsw.com.au)

#### **GippsDairy**

Tel: 03 5624 3900

[www.gippsdairy.com.au](http://www.gippsdairy.com.au)

#### **Murray Dairy**

Tel: 03 5833 5312

[www.murraydairy.com.au](http://www.murraydairy.com.au)

#### **Subtropical Dairy**

Tel: 0431 197 479

[www.dairyinfo.biz](http://www.dairyinfo.biz)

#### **Western Dairy**

Tel: 0418 931 938

[www.westerndairy.com.au](http://www.westerndairy.com.au)

#### **WestVic Dairy**

Tel: 03 5557 1000

[www.westvicdairy.com.au](http://www.westvicdairy.com.au)



**Dairy Australia Limited** ACN 105 227 987  
Level 5, IBM Centre  
60 City Road, Southbank VIC 3006 Australia  
T + 61 3 9694 3777 F + 61 3 9694 3701  
E [enquiries@dairyaustralia.com.au](mailto:enquiries@dairyaustralia.com.au)  
[www.dairyaustralia.com.au](http://www.dairyaustralia.com.au)

