



Grazing BMP self-assessment

Animal health and welfare



Self-assessment – Animal health and welfare

A profitable and sustainable cattle business depends on good animal health and welfare. High standards of animal health and welfare are crucial to industry's reputation and market access.

Animal health and welfare must be considered when:

- undertaking livestock handling, husbandry procedures and livestock transport
- managing known threats such as diseases and parasites, possible sources of toxicity and predation
- responding to irregular events, such as extreme weather conditions
- preparing for events that could pose a threat to animal health or welfare such as notifiable disease outbreaks or outbreaks of endemic disease.

Japanese Ox bullocks in central Queensland



source: G Fletcher

Regulations applicable to disease management and livestock movements must be considered in all situations.

Written management plans that have been prepared ahead of time will assist you to manage animal health and welfare, both in your daily operations and when unexpected events occur.

This module comprises five key areas:

Key area 1 – Health management program

- AH 1.1 Identifying health risks
- AH 1.2 Health management program
- AH 1.3 Staff training
- AH 1.4 Recognising disease
- AH 1.5 Monitoring livestock
- AH 1.6 Responding to health issues
- AH 1.7 Managing parasites
- AH 1.8 Poisonous plants
- AH 1.9 Toxicities

Key area 2 – Extreme weather events and predation

- AH 2.1 Planning for extreme weather events
- AH 2.2 Managing predation

Key area 3 – Biosecurity

- AH 3.1 Biosecurity planning
- AH 3.2 Livestock health
- AH 3.3 Livestock movements
- AH 3.4 Quarantine procedures
- AH 3.5 Vehicles and equipment
- AH 3.6 Fodder biosecurity
- AH 3.7 Feral animals and wildlife
- AH 3.8 Record keeping

Key area 4 – Animal welfare

- AH 4.1 Animal welfare responsibilities
- AH 4.2 Sick or injured livestock
- AH 4.3 Feed and water
- AH 4.4 Facilities and equipment
- AH 4.5 Livestock handling
- AH 4.6 Environmental conditions
- AH 4.7 Husbandry procedures
- AH 4.8 Staff training
- AH 4.9 Breeding management
- AH 4.10 Humane destruction

Key area 5 – Livestock transport

- AH 5.1 Livestock transport responsibilities
- AH 5.2 Planning livestock transport
- AH 5.3 Livestock handling competency
- AH 5.4 Vehicles and facilities
- AH 5.5 Pre-transport selection
- AH 5.6 Time off water
- AH 5.7 Loading density
- AH 5.8 Handling and transport
- AH 5.9 Humane destruction



Cows and calves in healthy condition

Key area 1 – Health management program

Sickness results from a complex interaction between animal, agent (bacterium, virus or toxin) and environment (weather, management, diet). When all three are balanced, the animal can remain healthy, even in the presence of bacteria, viruses or toxins. When factors alter the characteristics of the animal, agent and environment, the balance can be upset and result in disease.

A well-planned approach to managing livestock health and welfare:

- selects livestock adapted to the environment
- uses preventative approaches to reduce the likelihood of sickness and disease
- controls the risk of disease in a cost-effective way
- optimises herd productivity
- employs early treatment if disease occurs, and uses as few chemicals as possible.

Identifying health risks

Consider which diseases or nutritional deficiencies are likely to occur in your beef enterprise by assessing:

- local health and disease risks
- grazing and husbandry practices
- age groups and classes of livestock
- health status of introduced livestock.

As well as having a major impact on animal performance nutritional deficiencies can contribute to health problems e.g. phosphorus deficient cattle chew bones and high mortalities occur if herds are not vaccinated.

Identifying and managing nutritional deficiencies is covered in **Key Area 5 – Managing nutrition** of the **Animal production module**.

Zoonosis risks

Zoonoses are infections naturally transmissible between animals and humans. Common disease risks for humans include leptospirosis and Q fever.

Assess the risk of people contracting a zoonotic disease from your livestock. Risks should be managed where practical by using strategies to reduce the risk of disease transmission to humans. The management system may include:

- human vaccinations e.g. Q fever
- livestock vaccinations e.g. leptospirosis
- strategies to reduce human exposure to animal diseases.

Health management program

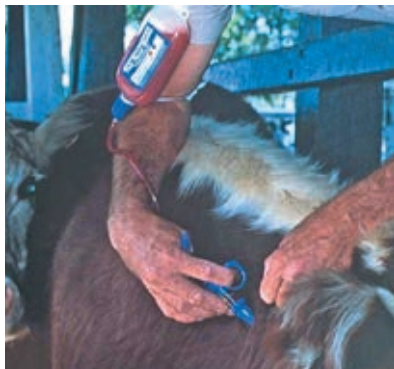
A health management program is a plan which sets out the overall strategy as well as specific procedures for maintaining livestock in good health. Health programs need to address both **clinical disease** (effects on the animal are readily observable), and **subclinical disease** (symptoms are not readily observable but there are production losses and or welfare issues).

An integrated approach considers all possible options for preventing disease and balances monitoring, vaccination and biosecurity measures. Once an animal health risk is identified you must decide whether to:

- take immediate action and adopt a preventive program, or



Steer suffering from external parasites



Tick fever vaccination



Tail bleeding for disease investigation

- monitor the herd for disease symptoms and act when the disease appears.

The appropriate approach will depend on balancing the cost-benefit of control and animal welfare.

Staff training

Livestock owners are responsible for ensuring that people who monitor livestock and perform livestock health procedures are trained and have relevant knowledge, experience and skills. People learning to monitor livestock and undertake health procedures should be directly supervised by a person with relevant knowledge, experience and skills.

Recognising disease

Being familiar with what is 'normal' will mean you are better able to recognise anything that is 'abnormal' and respond appropriately and promptly. Indicators include changes in:

- behaviour, such as reduced eating, drinking, movement, and interactions with group mates
- posture and gait (e.g. standing hunched-up or with head low, limping, unsteady walk)
- respiration rate (e.g. rapid panting or slow, laboured breathing)
- body condition e.g. sudden loss or bloating
- appearance e.g. swellings of joints or body parts
- colour and consistency of faeces and urine
- discharges e.g. from the eyes, nose, and mouth.

Monitoring livestock

Livestock should be monitored frequently to ensure that their dietary requirements are being met through provision of adequate feed and water, and that they are in good health and free of disease and injury.

Responding to health issues

Investigate all animal deaths where practical. When large numbers of animals are affected in a very short time, the most common cause is toxicity. Key factors to consider are time and numbers, i.e. how many animals are affected and within what time frame.

If an uncommon or unexplained health problem occurs, seek professional advice from your local veterinarian or state department of agriculture.

Reporting notifiable diseases

Notifiable diseases are diseases (endemic or exotic) that by law must be reported to government veterinary services. A notifiable disease could be a disease which is not normally found in the region (e.g. cattle tick or Hendra virus) or it could be an exotic disease (e.g. Foot and Mouth Disease).

If you detect something unusual and are unable to contact your veterinarian or state department of agriculture, you can report it directly to the 24-hour Emergency Animal Disease Watch Hotline on free call 1800 675 888. Your early action could make all the difference. Animal Health Australia's (AHA) 'Spot the Risk' campaign highlights the issues in each livestock industry (www.animalhealthaustralia.com.au).

Vaccination

Vaccinations can prevent many common animal diseases. Vaccination strategies should be based on the welfare of the animal, the relative costs of vaccination versus production benefits and whether vaccination can reduce zoonotic disease risks for people handling livestock.

Keeping records

Good record keeping is integral to managing animal health. Property records can provide crucial information when diseases are investigated. Stock records and animal



source P Smith

Bone chewing can be an indication that an animal is lacking phosphorus



Bellyache bush

performance data – conception rates, losses between pregnancy test and weaning, growth rates – often indicate where losses may be occurring.

Develop a routine practice of recording details of deaths, diseased livestock and poor performance. It is important to record specific details when individual cattle are treated with products that have defined withholding periods (WHP) and Export Slaughter Intervals (ESI).

Managing parasites

Monitoring parasite burdens is critical to the timely identification of potential problems. Tools available include:

- worm egg counts
- monitoring external parasite burden by visual appraisal.

Poisonous plants

It is important to know the plants in your region which have the potential to cause poisonings. As many poisonous plants are not poisonous all year round, knowing when problems are likely to occur is also critical. Hungry stock, newly introduced stock and young stock are the most susceptible to poisonings.

To reduce the risk of poisonous plants:

- never let hungry stock onto suspect pastures, e.g. after a long trip
- manage access by weaners carefully because they have limited nutritional wisdom
- expose newly introduced stock gradually to suspect areas
- plan how to manage your stock operations around the danger periods.

Blue green algae poisoning can be a risk with algal blooms as some species can produce toxins. Algal blooms usually occur in still or slow flowing water. The risk of toxic algal blooms increases with low water levels, hot weather and

contamination of water by nutrient rich soil and faeces. The toxicity of a bloom can vary rapidly.

Toxicities

Many substances can cause poisonings under grazing conditions. Rubbish dumps, old dips, yards and buildings are common sources of livestock poisonings and or contamination.

Under the Livestock Production Assurance Program (LPA), producers must minimize the risk of livestock being exposed to sites that are contaminated with persistent chemicals. **Key Area 2 – Markets and marketing** of the **Animal production module** covers procedures required to comply with the LPA program.

Self-assessment – Health management program

Below industry standard	Industry standard	Above industry standard	Desired standard	Steps required to improve
AH 1.1 Identifying health risks				
<p>Livestock disease, deficiency and poisoning risks that occur in your locality are unknown or not considered.</p> <p><input type="checkbox"/></p>	<p>Livestock disease, deficiency and poisoning risks have been assessed.</p> <p><input type="checkbox"/></p>	<p>Industry standard plus: Health risks are documented in the property health management program.</p> <p><input type="checkbox"/></p>	<p>Industry standard</p> <p><input type="checkbox"/></p> <p>Above industry standard</p> <p><input type="checkbox"/></p>	<p>1.</p> <p>2.</p> <p>3.</p>
AH 1.2 Health management program				
<p>No health management program is in place.</p> <p><input type="checkbox"/></p>	<p>Health management program appropriate for your property's animal health risks has been developed and implemented, including a vaccination plan.</p> <p>Livestock deaths, disease occurrences and poor animal performance are documented.</p> <p><input type="checkbox"/></p>	<p>Industry standard plus: Health management program is documented.</p> <p>Livestock production and performance data is routinely reviewed for possible evidence of subclinical disease.</p> <p><input type="checkbox"/></p>	<p>Industry standard</p> <p><input type="checkbox"/></p> <p>Above industry standard</p> <p><input type="checkbox"/></p>	<p>1.</p> <p>2.</p> <p>3.</p>
AH 1.3 Staff training				
<p>Livestock monitoring and health procedures are undertaken by persons who are not competent in the procedures or not under the direct supervision of a person with the relevant knowledge, experience and skills.</p> <p><input type="checkbox"/></p>	<p>Persons undertaking livestock monitoring and health procedures are trained and competent in the procedures or are under the direct supervision of a person who has the relevant knowledge, experience and skills.</p> <p><input type="checkbox"/></p>	<p>Industry standard plus: Staff training is documented in the property health management program.</p> <p><input type="checkbox"/></p>	<p>Industry standard</p> <p><input type="checkbox"/></p> <p>Above industry standard</p> <p><input type="checkbox"/></p>	<p>1.</p> <p>2.</p> <p>3.</p>

Below industry standard	Industry standard	Above industry standard	Desired standard	Steps required to improve
AH 1.4 Recognising disease				
<p>People are unaware of how to recognise abnormal behaviour and disease symptoms.</p> <p><input type="checkbox"/></p>	<p>People are skilled in recognising abnormal behaviour and disease symptoms in stock.</p> <p><input type="checkbox"/></p>	<p>Industry standard plus: Abnormal behaviour and disease symptoms are documented as required under the health management program.</p> <p><input type="checkbox"/></p>	<p>Industry standard</p> <p><input type="checkbox"/></p> <p>Above industry standard</p> <p><input type="checkbox"/></p>	<p>1.</p> <p>2.</p> <p>3.</p>
AH 1.5 Monitoring livestock				
<p>The herd is not actively monitored for abnormal behaviour and disease symptoms.</p> <p><input type="checkbox"/></p>	<p>The herd is systematically monitored for abnormal behaviour and disease symptoms.</p> <p><input type="checkbox"/></p>	<p>Industry standard plus: Abnormal behaviour and disease symptoms are documented as required under the health management program.</p> <p><input type="checkbox"/></p>	<p>Industry standard</p> <p><input type="checkbox"/></p> <p>Above industry standard</p> <p><input type="checkbox"/></p>	<p>1.</p> <p>2.</p> <p>3.</p>
AH 1.6 Responding to health issues				
<p>Deaths and sickness are not investigated and/or recorded.</p> <p><input type="checkbox"/></p>	<p>Deaths and sickness are recorded and investigated where practical. Veterinary advice is sought for any significant or unexplained health problems and results are reported to relevant authorities. Statutory obligations to report notifiable diseases are complied with.</p> <p><input type="checkbox"/></p>	<p>Industry standard plus: Animals displaying unusual symptoms are isolated from the main mob where practical and monitored. Health investigations are documented as part of the health management program.</p> <p><input type="checkbox"/></p>	<p>Industry standard</p> <p><input type="checkbox"/></p> <p>Above industry standard</p> <p><input type="checkbox"/></p>	<p>1.</p> <p>2.</p> <p>3.</p>

Below industry standard	Industry standard	Above industry standard	Desired standard	Steps required to improve
AH 1.7 Managing parasites				
Parasites common in your locality are not known or considered. <input type="checkbox"/>	Parasites common in your locality are known and stock are monitored for parasite burden. Control strategies are implemented as required to manage parasite risk. <input type="checkbox"/>	Industry standard plus: Health management program documents parasite monitoring and control programs. <input type="checkbox"/>	Industry standard <input type="checkbox"/> Above industry standard <input type="checkbox"/>	1. 2. 3.
AH 1.8 Poisonous plants				
The risks of plant and/ or blue green algae poisoning are not known or considered. <input type="checkbox"/>	Poisonous plant and blue green algae risks are known and considered in grazing and livestock management. Stock are managed to minimize access to poisonous plants and blue green algae when plants could be toxic or stock vulnerable. <input type="checkbox"/>	Industry standard plus: Health management program documents poisonous plant and blue green algae risks as well as procedures for managing poisoning risks. <input type="checkbox"/>	Industry standard <input type="checkbox"/> Above industry standard <input type="checkbox"/>	1. 2. 3.
AH 1.9 Toxicities				
Potential for livestock poisoning from rubbish dumps, chemicals, old dips, mine sites etc is not known or considered. Potential for contamination of stockfeed is not known or considered. <input type="checkbox"/>	Risk of livestock poisoning has been assessed and action taken to remove risk or exclude livestock from hazardous sites. Hazardous sites are identified on a property map. Potential for contamination of stockfeed is considered and preventative action taken. <input type="checkbox"/>	Industry standard plus: Health management program documents procedures to prevent poisoning. <input type="checkbox"/>	Industry standard <input type="checkbox"/> Above industry standard <input type="checkbox"/>	1. 2. 3.

Key area 2 – Extreme weather events and predation



source D Holroyd

Managing drought conditions is critical for animal welfare



Uncontrolled fire can cause major damage to the environment

A critical component of livestock management is minimising the impacts of extreme weather, natural disasters, injury and predation on animals' health and welfare.

Drought

Successful drought management depends on early planning and action. It requires a sound understanding of your current position, and a clear idea of the position you want to be in at the end of the drought. It should consider the effects on land, pasture, property finances, people and cattle.

The key components of drought management are:

1. Assessing the current situation
2. Considering the available options and financial implications.
3. Deciding which option/s to adopt.
4. Deciding which cattle are to be sold and what will trigger selling, e.g. rainfall, pasture condition, dates.
5. Developing an appropriate supplementation program for cattle being retained.

Reducing cattle numbers early rather than late is critical. Assessing pasture quantity and quality and adjusting stock numbers accordingly will reduce feeding costs. The quantity of feed available at the end of the wet season is generally all that is available until the season breaks in spring/early summer. The inevitable decline in feed quality as the dry season progresses must also be considered.

Efficient supplementary feeding depends on:

- segregating cattle according to their feed requirements
- identifying the nutrients most limiting production, and

- selecting the right feed/supplement to achieve required performance at least cost.

Cattle are capital assets that can be sold rather than kept and fed at any cost. The logic of selling all dry cattle first to save the breeders should be questioned. Breeders are the most difficult and expensive cattle to keep alive in a drought. Dry cattle are easier and less expensive to keep alive and will provide a cash flow sooner after the drought. Breeder herds take time to generate cash flow unless the breeders themselves are sold.

Fire

While fire management varies between regions, strategies to protect pasture from fire, such as strategic early burning and fire break maintenance, should be part of any fire management plan. It is critical to maintain fire-fighting equipment in good order and to have a fire control plan that specifies staff responsibilities.

Fire has both short- and long-term impacts on available forage and the consequent condition of livestock. Implement a grazing management plan that allows for pasture recovery after any fire. Assess stock immediately after a fire and humanely destroy injured stock which cannot be humanely treated. Provide other stock with appropriate treatment and access to feed and water while plans are made to either relocate the stock or feed them locally. If boundary or internal fencing has been damaged, steps should be taken where feasible to avoid stock mixing.

Flood

Flooding can result in:

- livestock drowning, particularly young animals
- isolation and starvation of livestock



Calf attacked by wild dogs

- short- to long-term loss of pasture biomass and/or quality, leading to nutritional stress on livestock
- loss of internal or boundary fencing, leading to stock mixing with other stock on or off the property
- increased populations of biting insects which can transmit diseases such as ephemeral fever.

Monitoring weather forecasts, rainfall and river heights before and during a flood event enables timely decisions to be made about moving stock to less flood-prone country.

Predation

Livestock owners/managers must be alert to the signs of predation. New born animals are the most vulnerable. Hide and carcass damage in older animals can indicate that significant losses are occurring among younger animals.

Pest animal control requires a planned, integrated approach undertaken in collaboration with your neighbours. Control on individual properties is often of limited benefit because pest animals will quickly move into areas where a gap has been created by control. Timing of control measures is also critical for maximum impact.

Self-assessment – Extreme weather events and predation

Below industry standard	Industry standard	Above industry standard	Desired standard	Steps required to improve
AH 2.1 Planning for extreme weather events				
No management plans for potential extreme events (drought, flood or fire).	Management plans developed for potential extreme events (drought, flood and fire). These plans identify risks and strategies for dealing with them.	Industry standard plus: Management plans for extreme weather events are reviewed as required to ensure their suitability for the property situation and potential weather risks.	Industry standard <input type="checkbox"/>	1.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Above industry standard <input type="checkbox"/>	2.
				3.
AH 2.2 Managing predation				
No planned control program(s) to manage potential livestock predators.	Livestock are monitored for predation. Injured livestock are treated or humanely destroyed as appropriate. Targeted predator control program(s) implemented as required. Property participates in co-ordinated local control programs where available.		Industry standard <input type="checkbox"/>	1.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Above industry standard <input type="checkbox"/>	2.
				3.



Vehicle washdown to prevent spread of weeds

Key area 3 – Biosecurity

Biosecurity means protecting animals and plants by preventing disease and biological agents from entering your property, or by immediately containing them if they are found on your property. In some situations a property may already be infected (e.g. with cattle ticks), but still be at risk from resistant strains of the organism.

Exotic diseases are far less likely to occur, but have the potential to economically and socially damage the livestock industry. Producers need to be aware of unusual clinical signs that may indicate an exotic disease and also of how these diseases could inadvertently enter the country. For example, Foot and Mouth Disease could be introduced via illegally imported meat products.

Develop a biosecurity plan and a working relationship with your veterinarian, stock inspector or livestock advisor to be prepared for emergencies. Information on biosecurity measures can be obtained at www.farmbiosecurity.com.au.

Biosecurity planning

A biosecurity plan for a cattle enterprise addresses:

- response to sick or dead animals
- assessment of cattle introduced to the property
- monitoring of cattle on the property for any adverse signs of ill-health
- stock movements
- vehicle and people movements
- vehicle and equipment hygiene
- stockfeed biosecurity
- feral animals and wildlife.

Livestock health and movements

Biosecurity strategies for livestock include:

- monitoring for signs of disease and abnormalities
- reporting unexplained deaths or illness affecting a high percentage of the herd to a local veterinarian or the state department of agriculture
- not transporting animals with contagious diseases
- properly disposing of dead animals i.e. by burning or burying
- keeping newly introduced animals isolated from the herd and observing them for disease
- isolating animals that have been off the farm and in contact with other livestock.

Quarantine procedures

It is recommended that new or returning stock be quarantined from other stock on the property for 5 to 7 days if possible. Monitor them during this time, and vaccinate and treat them for parasites if applicable. After moving the stock, monitor the area for new weeds the stock may have brought in with them.

Vehicles and equipment

Biosecurity strategies for vehicles and equipment include:

- controlling access to your property by locking gates or obstructing alternative entry points
- recording details of vehicles and equipment entering the property in a log book
- minimising vehicular traffic through livestock and feeding areas



Bullocks being fattened on oats



source S & M Daley La Mancha Longreach

Only source stockfeed from reputable suppliers

- cleaning and disinfecting equipment used for removing manure or dead animals before using it to handle feed.

Fodder biosecurity

Biosecurity strategies for stockfeed include:

- only sourcing stockfeed from reputable suppliers
- purchasing feed that is accompanied by a Safemeat Commodity Vendor Declaration (CVD) to ensure the feed is compliant with residue and contaminant standards
- restricting access to feed storage areas by people and native animals
- not feeding food scraps or stockfeed containing meat, bone meal or other banned products to livestock
- ensuring stockfeed cannot be contaminated by livestock effluent or dead livestock
- if there are concerns about the weed status of purchased fodder, restricting if possible the number of feeding locations and preferably feeding away from low lying areas and watercourses
- monitoring feeding sites for introduced weeds and controlling weed infestations quickly.

Feral animals and wildlife

Feral animals and wildlife can introduce and spread some diseases. Biosecurity threats can be minimized by:

- developing a feral animal/pest monitoring and control program
- working with your neighbours – what is affecting you will be affecting them
- addressing feral animal and wildlife access to rubbish dumps
- limiting feral animal access to dead stock where possible

- monitoring feral animals and wildlife and reporting disease or abnormalities to the state department of agriculture.

Record keeping

The following records should be maintained:

- record of inspection of health status of newly arrived cattle on the property
- record of cattle deaths on the property
- records of cattle movements on the property
- record of incoming and outgoing vehicles, machinery and/or equipment (contractors) on the property
- record of training for people on the property in the early detection of cattle diseases
- record of livestock introductions onto the property – Waybill/NVD
- record of stock feed purchases and stock feed brought on to the property – Safemeat CVD.

Self-assessment – Biosecurity

Below industry standard	Industry standard	Above industry standard	Desired standard	Steps required to improve
AH 3.1 Biosecurity planning				
<p>Biosecurity implications for the beef industry are not considered. No biosecurity plan has been developed for the property.</p> <p><input type="checkbox"/></p>	<p>Implications of biosecurity for the beef industry are understood.</p> <p>A biosecurity plan is in place, covering vehicles, equipment, livestock monitoring, livestock movements and stock feeds.</p> <p><input type="checkbox"/></p>	<p>Industry standard plus:</p> <p>Biosecurity plan is documented.</p> <p>Health and pest status of neighbouring properties is known.</p> <p><input type="checkbox"/></p>	<p>Industry standard</p> <p><input type="checkbox"/></p> <p>Above industry standard</p> <p><input type="checkbox"/></p>	<p>1.</p> <p>2.</p> <p>3.</p>
AH 3.2 Livestock health				
<p>Deaths and sickness are not investigated and/or recorded.</p> <p>Dead animals are not disposed of and other animals and scavengers can access carcasses.</p> <p><input type="checkbox"/></p>	<p>Deaths and sickness are recorded and where practical investigated.</p> <p>Veterinary advice is sought for any significant or unexplained health problems. When appropriate results are reported to the state department of agriculture.</p> <p>Where practical, dead animals are disposed of so livestock or scavengers cannot access the carcass.</p> <p><input type="checkbox"/></p>	<p>Industry standard plus:</p> <p>Where possible, post mortems are conducted on explained deaths.</p> <p>An annual consultation on biosecurity issues is conducted with a veterinarian, stock inspector or livestock advisor.</p> <p><input type="checkbox"/></p>	<p>Industry standard</p> <p><input type="checkbox"/></p> <p>Above industry standard</p> <p><input type="checkbox"/></p>	<p>1.</p> <p>2.</p> <p>3.</p>
AH 3.3 Livestock movements				
<p>Movement of livestock is not controlled.</p> <p>No, or incomplete, records are kept of stock movements.</p> <p><input type="checkbox"/></p>	<p>Where practical, secure internal and boundary fencing is in place.</p> <p>Stock movement records are kept.</p> <p><input type="checkbox"/></p>		<p>Industry standard</p> <p><input type="checkbox"/></p>	<p>1.</p> <p>2.</p> <p>3.</p>

Below industry standard	Industry standard	Above industry standard	Desired standard	Steps required to improve
AH 3.4 Quarantine procedures				
Health status of incoming animals is not determined. Incoming livestock are not given appropriate health treatments or quarantined.	Incoming livestock are quarantined and observed for 5 to 7 days and given vaccinations and parasite treatments as appropriate. Treatments of incoming livestock are documented.		Industry standard <input type="checkbox"/>	1.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Above industry standard <input type="checkbox"/>	2. 3.
AH 3.5 Vehicles and equipment				
Movement of vehicles and equipment onto and around the property is not controlled. No procedure for washing down vehicles and equipment that pose a biosecurity risk.	Movement of vehicles and equipment is regulated to minimize risk. Vehicles and equipment that pose a biosecurity risk are washed down before being used on the property. Stock crates/trailers are routinely cleaned.	Industry standard plus: Records are kept of vehicle and equipment movements that pose a biosecurity risk.	Industry standard <input type="checkbox"/>	1.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Above industry standard <input type="checkbox"/>	2. 3.
AH 3.6 Fodder biosecurity				
Biosecurity implications are not considered when fodder is purchased or fed out. No records are kept of fodder purchases or fodder use on the property.	Biosecurity implications are considered when fodder is purchased and fed out. Records are kept of fodder purchases and use. Weed and chemical residue status of purchased fodder is known. Meat and bone meal or other restricted materials (e.g. dog and poultry feed) are not fed to cattle and stored separate to cattle feeds.	Industry standard plus: Stockfeed is sourced from manufacturers who operate under a quality assurance program that has a biosecurity component. Safemeat Commodity Vendor declarations are obtained for all stockfeed purchased.	Industry standard <input type="checkbox"/>	1.
<input type="checkbox"/>	<input type="checkbox"/>		Above industry standard <input type="checkbox"/>	2. 3.

Below industry standard	Industry standard	Above industry standard	Desired standard	Steps required to improve
AH 3.7 Feral animals and wildlife				
Feral animals are not monitored or controlled. Feral animals and wildlife have access to rubbish dumps and dead stock. <input type="checkbox"/>	Feral animals are monitored and controlled. Feral animal and wildlife access to rubbish dumps and dead stock is minimised where possible. If unusual signs or symptoms are noticed in feral animals or wildlife the state department of agriculture is notified. <input type="checkbox"/>		Industry standard <input type="checkbox"/>	1. 2. 3.
AH 3.8 Record keeping				
Property records do not meet LPA requirements or enable effective property biosecurity. <input type="checkbox"/>	Property has records of livestock movements, health treatments, stockfeed, vehicles/equipment and personnel, which ensure LPA compliance and enable effective property biosecurity. <input type="checkbox"/>		Industry standard <input type="checkbox"/>	1. 2. 3.



Facilities and equipment need to be designed and maintained to minimise risks to livestock welfare

Key area 4 – Animal welfare

The welfare of livestock is paramount to their health, productive capacity and ultimately the profitability of the enterprise. It is in the long-term interest of industry and individual producers to demonstrate high standards of animal care.

The *Australian Animal Welfare Standards and Guidelines – for Cattle* provide a basis for developing and implementing consistent legislation (the Standards) and provide guidance (the Guidelines) to all people responsible for livestock.

Animal welfare responsibilities

Good animal husbandry principles are essential for animal welfare:

- providing adequate feed and water to sustain good health and welfare
- enabling social contact with other livestock
- using handling facilities, equipment and procedures that minimize stress to livestock
- minimising the risk of pain, injury or disease
- providing care of sick, injured or diseased livestock, including humane killing if necessary at the earliest practical opportunity
- selecting and breeding livestock appropriate for the environment and planned level of herd management
- assessing the need for husbandry procedures and implementing alternative strategies if available and feasible

- undertaking husbandry procedures in a manner that minimizes stress and pain to livestock and risks to livestock welfare.

Sick or injured livestock

All persons responsible for livestock must provide appropriate care and treatment (which may include euthanasia) to sick, injured or diseased livestock at the earliest practical opportunity to ensure animals suffer for the least time possible.

Feed and water

Livestock must have access to feed and water to minimize risks to their welfare. Matching stocking rates to available feed is the most critical factor in maintaining appropriate body condition for good production and animal welfare.

In many grazing situations supplementation has an important role in maintaining appropriate body condition. Livestock feeds and feeding strategies should minimize harmful metabolic and nutritional conditions, and be based on:

- nutritional requirements of animals to be fed i.e. maintenance, growth, pregnancy or lactation
- condition score and, where appropriate, liveweight
- prevailing and predicted weather conditions.

Introduce major changes in diet gradually and closely monitor animals. Identify shy feeders and manage them to achieve required feed intake.



Livestock should be handled quietly and calmly, so as to minimise stress during handling



Husbandry procedures must be done in a manner that minimises the risk to livestock welfare

Facilities and equipment

Facilities and equipment need to be designed, maintained and used to minimize risks to livestock welfare. When constructing or modifying facilities take into account:

- livestock type and behaviour
- topography (location and drainage)
- climate
- space needs
- feed and water requirements
- shade and shelter.

Important principles of animal behaviour to be considered are:

- cattle follow a curve more readily than a straight line
- cattle work better on a slight uphill slope
- turns less than 90° reduce cattle flow and increase bruising
- cattle become bewildered and more nervous if they cannot see or are not allowed the time to see where they are required to go
- use visual barriers where appropriate.

Where these factors are considered in yard design and construction, the time spent handling and processing cattle will be reduced and animals will be more content.

Livestock handling

Handle livestock quietly and calmly, taking into account their flight zone and natural mobbing instinct, so as to minimize stress during handling. Make allowances for livestock with special needs such as young livestock, lame stock and bulls.

Where practical, livestock should not be handled when environmental conditions are unfavourable e.g. extreme heat or boggy conditions.

The degree and duration of restraint for livestock should be the minimum necessary to allow a procedure to be done efficiently and safely. Limit the use of dogs and electric prodders to the minimum amount necessary.

Husbandry procedures

Surgical husbandry procedures, such as castration, dehorning, spaying and identification, should only be done where there are no alternatives and the procedure results in:

- benefits to livestock welfare over the long term
- improved herd management, and
- reduced safety risks for people handling livestock.

Conduct procedures in a manner that minimizes the risk to livestock welfare, particularly pain and stress. Where practical and cost effective, pain relief should be provided. Perform procedures at the youngest practical age. Use effective but not excessive restraint to minimize movement and to enable the procedure to be done quickly and efficiently.

The MLA publication, “A Guide to best practice husbandry in beef cattle – branding, castrating and dehorning”, is a recommended reference.

Staff training

Livestock owners and managers are responsible for ensuring that people who handle livestock and perform husbandry procedures have the necessary knowledge, skills and experience. People learning to handle livestock and undertake husbandry procedures should be directly supervised by a person with the relevant knowledge, skills and experience so as to meet regulatory requirements and in a manner that minimizes the risks to animal welfare.

Breeding management



Females being pregnancy tested for herd management

A person performing artificial breeding procedures on cattle must take reasonable precautions to minimize pain, distress or injury. These procedures include artificial insemination, oocyte collection, embryo transfer, semen collection and pregnancy diagnosis.

In the last trimester of pregnancy, management practices should minimize stress on cows to reduce the incidence of metabolic diseases. Calving cattle must be inspected at intervals appropriate to the production system and the level of risk to the welfare of cattle. Bulls should be checked at regular intervals for injuries and disease.

Humane destruction

When it is necessary to kill livestock and feral animals this must be done promptly, safely and humanely. Close range firearms or captive bolt to the brain are recommended humane killing methods for both adult cattle and calves.

Self-assessment – Animal welfare

Below industry standard	Industry standard	Above industry standard	Desired standard	Steps required to improve
AH 4.1 Animal welfare responsibilities				
Relevant standards and guidelines and other regulatory requirements are not understood. Standards in the <i>Australian Animal Welfare Standards</i> are not adopted. Livestock inspections are ad hoc. <input type="checkbox"/>	Relevant standards and guidelines and any other regulatory requirements are understood. Standards in the <i>Australian Animal Welfare Standards</i> are adopted. Livestock are inspected at intervals and at a level appropriate to the production system and the risks to livestock. <input type="checkbox"/>		Industry standard <input type="checkbox"/>	1. 2. 3.

Below industry standard	Industry standard	Above industry standard	Desired standard	Steps required to improve
AH 4.2 Sick or injured livestock				
Sick, injured or diseased livestock do not receive treatment at the first reasonable opportunity.	Sick, injured or diseased livestock are provided with appropriate care and/or treatment at the first reasonable opportunity.		Industry standard <input type="checkbox"/>	1. 2. 3.
<input type="checkbox"/>	<input type="checkbox"/>			
AH 4.3 Feed and water				
Livestock do not have access to adequate and appropriate feed and water to maintain good health.	Livestock have access to adequate and appropriate feed and water to maintain good health.		Industry standard <input type="checkbox"/>	1. 2. 3.
<input type="checkbox"/>	<input type="checkbox"/>			
AH 4.4 Facilities and equipment				
Welfare outcomes are not considered in the construction, maintenance and operation of facilities and equipment. Restraint facilities do not allow for cattle to be handled efficiently without endangering animals or handlers.	Facilities and equipment are constructed, maintained and operated to ensure the welfare of livestock. Restraint facilities are designed to allow cattle to be handled efficiently with minimal danger to the animals and their handlers.		Industry standard <input type="checkbox"/>	1. 2. 3.
<input type="checkbox"/>	<input type="checkbox"/>			

Below industry standard	Industry standard	Above industry standard	Desired standard	Steps required to improve
AH 4.5 Livestock handling				
<p>Livestock are not handled so as to optimise welfare outcomes.</p> <p>Electric prodders are used inappropriately or excessively.</p> <p>Dogs are not under effective control at all times.</p> <input type="checkbox"/>	<p>Livestock are handled so as to optimise welfare outcomes.</p> <p>Electric prodders are only used when required and use is minimized.</p> <p>Dogs are under effective control at all times during livestock handling.</p> <input type="checkbox"/>		<p>Industry standard</p> <input type="checkbox"/>	<p>1.</p> <p>2.</p> <p>3.</p>
AH 4.6 Environmental conditions				
<p>Environmental conditions e.g. hot weather are not considered in decisions regarding the timing of handling.</p> <input type="checkbox"/>	<p>Where practical, animals are only handled when environmental conditions are favourable for their welfare.</p> <input type="checkbox"/>		<p>Industry standard</p> <input type="checkbox"/>	<p>1.</p> <p>2.</p> <p>3.</p>
AH 4.7 Husbandry procedures				
<p>Animal welfare risks are given little consideration when carrying out castration, dehorning, spaying and identification procedures.</p> <input type="checkbox"/>	<p>Castration, dehorning, spaying and identification procedures are carried out in a manner that minimizes animal welfare risks by considering the age and condition of the animal, market specifications and regulatory requirements.</p> <input type="checkbox"/>		<p>Industry standard</p> <input type="checkbox"/>	<p>1.</p> <p>2.</p> <p>3.</p>

Below industry standard	Industry standard	Above industry standard	Desired standard	Steps required to improve
AH 4.8 Staff training				
Livestock handling and husbandry procedures are undertaken by persons without the necessary knowledge, skills and experience or are not supervised by a person with the relevant knowledge, skills and experience. <input type="checkbox"/>	Persons undertaking livestock handling and husbandry procedures have the necessary knowledge, skills and experience or are supervised by a person with the relevant knowledge, skills and experience. <input type="checkbox"/>		Industry standard <input type="checkbox"/>	1. 2. 3.
AH 4.9 Breeding management				
Breeding is not undertaken on this property. <input type="checkbox"/>				
Breeding management practices do not minimize the risk to livestock welfare. Artificial breeding procedures are done without considering how to minimize pain, stress or risk of injury to animals. <input type="checkbox"/>	Breeding management practices are conducted in a manner that minimizes the risk to livestock welfare. All reasonable actions are taken to minimize pain, stress and risk of injury to livestock during artificial breeding procedures. Pregnant and calving cattle are handled in a way that minimizes stress and their welfare is appropriately monitored. <input type="checkbox"/>		Industry standard <input type="checkbox"/>	1. 2. 3.
AH 4.10 Humane destruction				
Livestock suffering from severe stress, disease or injury that cannot be reasonably treated are not humanely destroyed at the first reasonable opportunity. <input type="checkbox"/>	Livestock suffering from severe distress, disease or injury that cannot be reasonably treated are humanely destroyed at the first reasonable opportunity. <input type="checkbox"/>		Industry standard <input type="checkbox"/>	1. 2. 3.



All people involved in transporting cattle share responsibility for minimising risk factors

Key area 5 – Livestock transport

From an animal welfare perspective, transport management commences before the journey begins and ends after the journey is complete, with the pre-transport phase being critical to success.

Any person in charge of livestock at any time carries a duty of care or responsibility for the welfare of the livestock. They are expected to take reasonable action to minimize risks.

The *Australian Animal Welfare Standards and Guidelines - Land Transport of Livestock* provide a basis for developing and implementing consistent legislation (the Standards) and providing guidance (the Guidelines) for all people responsible for livestock transport.

Livestock transport responsibilities

All people involved in transporting cattle share responsibility for minimising risk factors. This includes owners, managers, handlers, agents and drivers.

The **consignor** is responsible for:

- mustering and assembling the livestock
- selecting only those that are ‘fit for the intended journey’
- holding and handling the livestock before loading
- preparing the livestock for travel, including providing appropriate amounts of feed and water.

The **transporter** (except for rail) is responsible for:

- determining the loading density
- inspecting the stock as “fit to load” for the intended journey
- loading the livestock

- providing rest periods during the journey as required
- inspecting the livestock during the journey
- unloading at the destination.

The rail company is only responsible for the livestock during the journey.

The **receiver** is responsible for handling the livestock after they have been unloaded.

Livestock can be transported more effectively and with lower risk to welfare if the following principles are addressed.

Livestock transport planning

- The journey is planned to ensure prompt delivery of livestock, and that arrival is appropriately timed for the welfare of the livestock.
- Consideration is given to feed and water requirements, provision of adequate shelter, and protection from, or treatment of, injury and disease.

Livestock handling competency

- Livestock are managed and handled by persons with the necessary knowledge, skills and experience or are under the direct supervision of a person who has the relevant knowledge, skills and experience, so as to meet regulatory requirements and in a manner that minimizes the risks to animal welfare.
- Livestock are handled correctly at all times using well-designed and maintained facilities.

Livestock transport vehicles and facilities

- Road and rail transport facilities and vehicles are designed and maintained for the safe transport of livestock.



source 5 O'Connor
Cattle being settled into their new paddock after travel

Pre-transport selection and handling

- The preparation of livestock for transport is appropriate and adequate for the intended journey.
- Competent selection of “fit to load” livestock is conducted prior to loading.

Time off water

- Water provision for livestock takes into account prevailing weather conditions, pre-transport handling, travel time and destination.
- The maximum times off water for cattle are set out in the Welfare Standards.

Humane destruction

- If it is necessary to destroy livestock, this is done promptly, safely and humanely.

Self-assessment – Livestock transport

Below industry standard	Industry standard	Above industry standard	Desired standard	Steps required to improve
AH 5.1 Livestock transport responsibilities				
A duty of care is not exercised to ensure the welfare of livestock and compliance with the livestock transport standards.	A duty of care is exercised to ensure the welfare of livestock and compliance with the livestock transport standards.		Industry standard	1.
			<input type="checkbox"/>	2.
				3.
<input type="checkbox"/>	<input type="checkbox"/>			

Below industry standard	Industry standard	Above industry standard	Desired standard	Steps required to improve
AH 5.2 Planning livestock transport				
Adequate planning is not carried out and contingency measures for minimising risks to livestock welfare are not in place.	Adequate planning is carried out and contingency measures for minimising risks to livestock welfare are in place.		Industry standard	1.
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	2.
				3.
AH 5.3 Livestock handling competency				
The handling, selection, loading, transporting and unloading of livestock is not performed by persons with the necessary knowledge, skills and experience or is not supervised by a person with the relevant knowledge, skills and experience.	The handling, selection, loading, transporting and unloading of livestock is performed by persons with the necessary knowledge, skills and experience or is supervised by a person with the relevant knowledge, skills and experience.		Industry standard	1.
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	2.
				3.
AH 5.4 Vehicles and facilities				
Livestock transport vehicles and handling facilities are not constructed, maintained and operated in a way that minimizes the risk to livestock welfare.	Livestock transport vehicles and facilities are constructed, maintained and operated in a way that minimizes the risk to livestock welfare.		Industry standard	1.
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	2.
				3.

Below industry standard	Industry standard	Above industry standard	Desired standard	Steps required to improve
AH 5.5 Pre-transport selection				
The fitness of livestock for the intended journey is not assessed before loading. <input type="checkbox"/>	The fitness of livestock for the intended journey is assessed at every loading. Livestock assessed as not fit for transport are not loaded, and appropriate arrangements are made including where necessary appropriate treatment or humane destruction at the first opportunity. <input type="checkbox"/>		Industry standard <input type="checkbox"/>	1. 2. 3.
AH 5.6 Time off water				
Time off water is not managed to minimize the risk to livestock welfare. <input type="checkbox"/>	Time off water is managed to minimize the risk to livestock welfare, taking into consideration prevailing conditions and the Standards for times off water. <input type="checkbox"/>		Industry standard <input type="checkbox"/>	1. 2. 3.
AH 5.7 Loading density				
Loading density is not assessed for each pen or division in the livestock crate. <input type="checkbox"/>	Loading density is assessed for each pen or division in the livestock crate to minimize the risk to livestock welfare. <input type="checkbox"/>		Industry standard <input type="checkbox"/>	1. 2. 3.

Below industry standard	Industry standard	Above industry standard	Desired standard	Steps required to improve
AH 5.8 Handling and transport				
Livestock are handled, loaded, transported and unloaded in a manner that does not minimise risks to livestock welfare.	Livestock are handled, loaded, transported and unloaded in a manner that minimises risks to livestock welfare.		Industry standard	1.
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	2.
				3.
AH 5.9 Humane destruction				
Livestock destruction, when required, is not done promptly, safely and humanely.	When it is necessary to destroy livestock, this is done promptly, safely and humanely.		Industry standard	1.
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	2.
				3.

References and further reading

Key area 1 – Health management program

Animal Health Australia www.aahc.com.au

Queensland Department of Agriculture, Fisheries and Forestry
www.daff.qld.gov.au

Department of Agriculture and Food, Western Australia www.agric.wa.gov.au

Cattle health and welfare

AusVETPlan (2009) Animal Health Australia www.animalhealthaustralia.com.au/programs/emergency-animal-disease-preparedness/ausvetplan/

More Beef from Pastures – Module 7: Herd health and welfare (2004). Meat & Livestock Australia, Sydney www.mla.com.au/research-and-development/extension-and-training/more-beef-from-pastures

Collected references on health and disease issues relevant to beef production www.futurebeef.com.au/topics/health-and-disease/

Assessing the economic cost of endemic disease on the profitability of Australian beef cattle and sheep producers (2006) D Sackett, P Holmes, K Abbott, S Jephcott & M Barber. Final report AHW.087, Meat & Livestock Australia, Sydney.

Livestock diseases in Australia (2006) A Brightling. CH Jerram & Associates.

Hungerford's Diseases of Livestock 9th edition (1990) TAG Hungerford. McGraw-Hill.

Poisonous plants

Poisonous plants: Handbook for farmers and graziers (1983) EJ McBarron. Inkata Press.

Poisonous plants: a field guide (1993) R Dowling & R McKenzie. Queensland Department of Primary Industries.

Medical and veterinary aspects of plant poisoning in New South Wales (1976) EJ McBarron. NSW Agriculture.

Key area 2 – Extreme events and predation

Seasonal forecast information www.bom.gov.au/climate/enso/

North Australian Fire Information www.firenorth.org.au

Welfare of extensive livestock in dry periods www.dpi.qld.gov.au/4790_8181.htm

Key area 3 – Biosecurity

Biosecurity measures to protect property and livestock www.farmbiosecurity.com.au

Biosecurity or Disease Risk Mitigation Strategy for the Australian Cattle Industry, Version 1 (2003). Animal Health Australia (AHA), Canberra <http://www.farmbiosecurity.com.au/files/2011/05/Cattle-Industry-Farm-Biosecurity-Plan.pdf>

Key area 4 – Animal welfare

Australian Animal Welfare Standards and Guidelines for Cattle, Post Reference Group Meeting One – Working Version (2011) Primary Industries Ministerial Council (PIMC). AHA, Canberra.

A guide to best practice husbandry in beef cattle – branding, castration and dehorning (2007) R Newman. Meat & Livestock Australia, Sydney. www.mla.com.au/Publications-tools-and-events

A national guide to describing and managing beef cattle in low body condition (2013). Meat & Livestock Australia, Sydney. www.mla.com.au/Publications-tools-and-events

Managing cattle in dry conditions: Pastoralists' options and animal welfare responsibilities (2010) Agriculture WA: www.futurebeef.com.au/topics/welfare/#dryseason

Key area 5 – Livestock transport

Australian Standards and Guidelines for the Welfare of Animals www.animalwelfarestandards.net.au/land-transport/

Is it fit to load? A national guide to the selection of animals fit to transport (2006). Meat & Livestock Australia (MLA), Sydney. www.mla.com.au/Publications-tools-and-events