G o a t s

Animal Welfare (Goats)

Code of Welfare 2013

Livestock Welfare Coordinating Committee

Contents

Key to Minimum Standards

1. Introduction

1.1 What is the purpose of this code of welfare?

Efficient goat management requires both experience and the observance of high standards of care. Unless management and handling are done well, the welfare of the goats cannot be adequately protected. This code sets out minimum standards that represent society's expectation of that standard of care and that are based on good practice and scientific knowledge. It is intended to encourage all those responsible for its implementation to exceed the minimum standards and to adopt the best industry practices of husbandry, care and handling. Advice is given throughout the code and is designed to encourage owners/operators to strive for a high level of welfare.

1.2 Who does this code apply to?

This code applies to all persons responsible for the welfare of goats. Under the [New Zealand Animal Welfare Act 1999 – South African Equivalent = Animal Protection Act?] the "owner" of an animal and every "person in charge" of an animal is responsible for meeting the legal obligations for animal welfare. Responsibility for meeting minimum standards relating to the provision, design and maintenance of the facilities and equipment, the allocation of operational responsibilities and the competence and supervision of performance of employees, lies with the owner and every person in charge of the goats.

The owner may place the goats in the care of others for purposes such as feeding and management, rearing, breeding, transport or slaughter. Responsibility for meeting minimum standards during the particular tasks lies with the person responsible for carrying out that particular task. In practice, the identification of the person in charge is determined by the minimum standard in question.

1.3 What animals does this code apply to?

This code applies to any goat that is contained for management purposes (e.g. held within any boundary fence), including feral goats after mustering for the purposes of farming or slaughter, goats kept as companion animals (pets), any goat tethered anywhere and goats on game estates or safari parks. Goats in South Africa are commonly farmed for the purposes of milk, fibre (mohair and cashmere) and meat production.

1.4 What happens if I do not follow the minimum standards in this code?

Failure to meet a minimum standard in this code may be used as evidence to support a prosecution for an offence under the [New Zealand Animal Welfare Act]. A person who is charged with an offence against the [New Zealand Animal Welfare Act] can defend himself or herself by showing that he or she has equalled or exceeded the minimum standards in this code. Suggested indicators for the minimum standards do not have a legal effect but they can be used to determine whether minimum standards are being met.

The recommendations for best practice in this code have no legal effect and are included to encourage higher standards of animal welfare.

1.5 How does this code relate to other codes of welfare?

Codes of welfare have been developed, or are being developed, for individual species of animals, painful husbandry procedures, commercial slaughter, and for the transport of animals. Other codes of welfare should be consulted where appropriate.

2. Stockmanship and Animal Handling

Stockmanship and animal handling cover a wide range of skills and personal qualities including having knowledge of animal needs and behaviours, an understanding of the husbandry system and the skills needed to operate within it, a rapport with the animals, an ability to observe them, and skill in the practical aspects of handling, care and manipulation of animals.

2.1 Stockmanship

Introduction

The importance of good stockmanship cannot be over-emphasised. Good stockmanship requires competence, experience and the observance of high standards of animal husbandry. Appropriate knowledge and skills (or ready access to these) are important if the animals' health and welfare requirements are to be met. The knowledge and experience of individuals with livestock and their needs and interests, local climates and weather patterns, topography and shelter and management practices remains one of the prime means of ensuring the welfare of goats is maintained and enhanced.

Owners, managers or persons in charge are required to ensure that their personnel have both the knowledge and training or appropriate supervision so that the health and welfare needs of the goats in their care are met. Personnel should undergo training either formally or on the job by experienced supervisors. Any contract or temporary staff should be trained and competent in the relevant activity.

The owner or person in charge may place the goats in the care of others for the purpose of rearing, breeding, milking, transport or slaughter but this does not absolve them of their responsibility to ensure these tasks are carried out in accordance with this code.

Minimum Standard No. 1 – Stockmanship

Goats must be cared for by a sufficient number of personnel, who collectively possess the ability, knowledge and competence necessary to maintain the health and welfare of the animals in accordance with this code.

Example indicators for Minimum Standard No. 1 – Stockmanship

. Goats' health and welfare is in accordance with this code

. Staff training records show that stock handlers and farm managers have completed goat husbandry training courses and/or have had training on the job from supervisors who have competence in the husbandry of the goats within the particular locale and circumstances

. Stock handlers, owners and persons in charge of goats document how they keep up to date with developments in goat husbandry, and review their systems and practices regularly to improve the welfare of goats

. Operational procedures are documented and accurate records are kept of the history of the goats and the treatment that they have received

Recommended Best Practice

Quality assurance programmes should emphasise the importance of staff training to ensure that all staff caring for goats have the knowledge and competence necessary to maintain the health and welfare of animals in their care.

General Information

A number of breed and special interest groups run occasional field days providing training and information on the management of goats kept for different purposes. Details of upcoming field days can be obtained from the internet.

2.2 Animal Handling

Introduction

Goats are intelligent and inquisitive, and are quick to learn new things. A quiet approach when handling goats is important. The amount of stress experienced by the goats and the risk of injury to both goats and their handlers is decreased when

good handling facilities are available, as this will reduce the need to apply pressure to move the goats.

Minimum Standard No. 2 – Animal Handling

(a) Goats must be handled at all times in such a way as to minimise the risk of pain, injury or distress.

(b) Goats must not be prodded in sensitive areas, including the udder, eyes, nose, anus, vulva or testicles.

(c) Only the minimum force required must be used when moving goats.

(d) Electric goads must not be used on goats.

Example indicators for Minimum Standard No. 2 – Animal Handling

. Stock handlers' behaviour towards goats is always patient

. Stock handlers have knowledge of the easiest ways to move goats and do not need to resort to prodding or hitting to make goats move

. Goats are not lifted by the horns

. Stock handlers appreciate how goats may react to and interact with other goats, other animals, humans, strange noises, sights and smells

. Yards and handling systems are designed with knowledge of goat behaviour to ensure that goats will readily move through facilities

. Stock handlers are trained in the use of handling equipment

Recommended Best Practice

(a) Goats have a strong instinct to herd and individuals should not be unnecessarily isolated. The amount of time that individual goats are kept alone or out of sight of other goats should be minimised.

(b) Stock handlers should understand and recognise stress factors for goats and take steps to minimise them.

(c) Aids to facilitate handling of goats, such as vehicles, dogs, sticks and flags (when used as an extension of the arm) should all be used minimally and carefully so as not to distress or injure the goats.

(d) Tails should not be lifted or twisted when moving goats.

(e) If it is necessary to use dogs, they should be under control at all times and muzzled where appropriate.

(f) When performing husbandry procedures on aggressive animals, they should be separated, given additional space and kept in yards for the minimum time necessary to complete the tasks.

General Information

Human-animal interactions can be enhanced by improving handling procedures and facilities, selecting appropriate animals for the husbandry system, getting them used to human contact, and attending to the skill and training of the handlers.

Knowledge of goats' flight (or safety) zone and the point of balance (the line through the animal's shoulder which determines whether it will move forwards or backwards in the presence of a handler) will help with moving animals and in reducing fear. Animals with large flight zones, such as feral goats, become fearful and agitated when people invade this zone and when they are confined or unable to move away. The size of the flight zone depends on an animal's genotype, its previous contact with people and whether this contact was negative or positive.

Goats that are not accustomed to yarding can become stressed, and those that feel pressured are more likely to bully their herd-mates. Goats with horns present additional risk of injury. These goats require patient handling and plenty of space.

Smothering of goats when yarding is a risk, especially when the goats are not accustomed to routine handling (e.g. feral goats). Goats are also at a particular risk of smothering when contained in groups in confined spaces, when backing boards are used, at pressure points such as gateways and yard corners, or when adults and kids are in the same mob. The risk can be minimised by quiet and patient handling, managing animals in small groups, and by appropriate yard design.

2.3 Restraint and Tethering

Introduction

The facilities that are available for restraining goats on farm will depend on the farming system used but may include races, backing gates, crushes, cradles and head bails. This equipment can be used to guide a goat in a required direction or to hold it in position to enable efficient examination and treatment. Stock handlers need to be aware that head bails and crushes can cause injury to goats and people if they are not managed properly.

Goats are sometimes tethered or restrained in order to keep areas of land grazed and free of weeds. Goats tethered in this way are usually restrained by a collar or halter and chain or rope. Tethered goats have some particular requirements that must be met in order to ensure that their needs are satisfied. In addition, the food,

water and shelter requirements described in Section 3 Feed and Water and Section 4.1 Shelter, apply to all goats, including tethered goats.

Minimum Standard No. 3 – Restraint and Tethering

(a) Equipment used for restraining goats must be fit for purpose and applied in such a manner that stress and risk of injury to the goat are avoided.

(b) Methods of mechanical restraint must allow for the animal to be released quickly.

(c) Goats that are restrained by tethering must be:

(i) placid and trained to the conditions;

(ii) provided with constant access to potable water, sufficient food and effective shelter;

(iii) able to walk and move around without undue hindrance; and

(iv) inspected at least once every 12 hours.

(d) Kids, sick goats, pregnant or nursing does, or goats physiologically compromised in any other way must not be tethered.

(e) Tethers used on goats on roadside verges must prevent goats from getting into the path of vehicles.

Example indicators for Minimum Standard No. 3 – Restraint and Tethering

. Maintenance of goat restraint equipment is up-to-date and recorded, and there are no protruding parts or sharp-edged parts on the equipment that might injure goats

. If any difficulty is encountered when restraining a goat (e.g. the goat panics, is distressed, or is at risk of sustaining injury to itself), it is released quickly

. Collar is made of leather, nylon or other pliable and durable material

. Goats that are tethered are calm and have been trained as kids to accept approach and handling by humans, and have been trained to accept tethering after weaning, but before one year of age

. Where a goat is on a roadside verge, the placement of the anchor and length of tether is such that the goat cannot get into the path of vehicles but the tether is of sufficient length that the goat is able to exercise and access sufficient amounts of feed

. Sites that are to be used for tethering goats are examined beforehand for potentially harmful objects that a goat could eat such as toxic plants or litter, and for

objects or vegetation that might snag or catch on the tether or collar and prevent the animal's movement

. Tethered goats have access to suitable shelter and are not showing signs of cold stress

. Food and water requirements of restrained (including tethered) goats are met according to food and water minimum standards and indicators (see Section 3 Feed and Water)

. Tethered goats have the ability to walk and move around within the constraints of the tethered range

Recommended Best Practice

(a) Goats should be kept in herds, or at least with one social companion. If this is not possible, goats should be kept where they can see or hear other goats (or other animals).

(b) Stock handlers should be trained in the safe operation and rapid release of goats from restraints and facilities.

(c) Backing gates should be used carefully and should not be used in a manner likely to result in pain, injury or distress.

(d) Goats should not be tethered as they are social animals.

(e) Chains should not be used as a collar for goats.

(f) Tripod collars or hobbles should not be used to limit a goat's ability to move.

General Information

Goats are social animals and need to be provided with one or more companions. While interaction with humans (in the case of pet goats) may provide a substitute for some of their social and behavioural needs, the welfare of goats that are tethered on their own is compromised. Providing a goat with the company of other goats is preferable, however, goats can also live with companions such as sheep, cows or horses. If it is not possible to keep a goat in a herd with social companions, providing goats with the opportunity to see or hear other goats (or other animals) can provide some welfare benefits. When tethering goats in close proximity to other tethered goats, they need to be a sufficient distance away from each other so that the tethers cannot become entangled.

When tethering goats, the use of an aerial running line, in which the chain of the tether is attached to an aerial wire or rope so that the goat can move along the line, can be beneficial and provide a goat with additional space in which to exercise and access feed.

2.4 Mustering and Droving

Introduction

The mustering and droving of extensively managed or feral goats has the potential to significantly affect their welfare. The handler's skill lies in understanding the behaviour of the animals and adapting their own behaviour (and that of any dogs) in a way that facilitates mustering while minimising stress to the animals. Mustering is best undertaken as slowly and as quietly as possible, although it is recognised that certain categories of goats, e.g. feral goats, will require more encouragement than those more familiar with human contact. Knowledge of camping (resting) areas, grazing patterns and movement routes and times will facilitate the mustering of feral goats.

Minimum Standard No. 4 – Mustering and Droving

Goats being moved on foot must not be forced to proceed at a pace likely to cause exhaustion, heat stress or injury.

Example indicators for Minimum Standard No. 4 – Mustering and Droving

. Goats are calm and move steadily when mustered

. The pace of mustering or droving is that of the slowest animals in the mob, with particular attention given to kids, goats that are pregnant and those with illness or injury

. If any goat being mustered or driven is seen to have difficulty breathing (mouth open and tongue hanging out) then it is allowed to rest and recover

. Goats are settled and calm when they reach the destination yard, with little bullying

. When injuries occur while mustering, goats receive immediate care and attention

Recommended Best Practice

After mustering or droving, animals should be provided with suitable conditions and time to settle down, mother up or find shelter before further handling takes place or before the onset of darkness.

General Information

Goat farmers/handlers need to be aware of their responsibilities and liabilities with regard to council regulations and road rules when undertaking stock movement activities.

2.5 Mixing Goats

Introduction

Goats like to live in groups in which they establish social hierarchies. Whenever animals are introduced into a herd, they will be challenged as newcomers and will have to establish their place in the group. These challenges can be aggressive and lead to injury and distress, especially where goats have horns. Such behaviour needs to be managed and this is particularly important when introducing young goats into a herd for the first time.

Bucks are potentially dangerous at all times and especially during the mating season. Bucks need to be handled with special care to ensure their own safety and that of other animals.

Minimum Standard No. 5 – Mixing Goats

Where goats are mixed, they must be managed to minimise the effects of aggression.

Example indicators for Minimum Standard No. 5 – Mixing Goats

. Sufficient space is provided to enable bullied goats to move away from their aggressor

. Goats subjected to persistent bullying are removed from the herd

. Particular care is taken when mixing horned goats

Recommended Best Practice

(a) The introduction of new animals to the herd should not occur more frequently than necessary, because of the social distress involved while the introduced and resident goats re-establish a hierarchy.

(b) Goats should be provided with sufficient space so that newcomers can move into free space if pushed or bunted by other animals.

General Information

Goats with horns are at a distinct advantage during social challenges and can inflict serious injuries. This is more likely to happen when animals are being yarded or space is restricted. It is preferable that dairy goats are disbudded to limit the opportunity for injury from horns. Running goats together in mobs of similar ages will also reduce the impact of social bullying on younger goats.

3. Feed and Water

3.1 Food

Introduction

When considering the amount of food, nutrients and water that a goat requires, a number of different factors need to be taken into account e.g. age, physiological state (growing, pregnant, lactating), and weather conditions.

Feed requirements vary throughout the year, but are generally greatest during lactation, late pregnancy, growth, during periods of excessive cold. Nutritional requirements are best determined by monitoring body condition and liveweight.

Plants, including pasture and browse, are the main source of feed for goats in South African farming systems. There is considerable variation in pastoral management systems associated with seasonal and climatic differences, land and soil types, and whether the system is extensive or intensive.

Minimum Standard No. 6 – Food

(a) Goats of all ages must receive sufficient quantities of food and nutrients to enable each animal to:

(i) maintain good health;

(ii) meet their physiological requirements; and

(iii) minimise metabolic and nutritional disorders.

(b) If any goat shows signs of emaciation, or if the body condition score of any individual goat (other than kids or yearlings) falls below 2 (on a scale of 0–5), urgent remedial action must be taken to improve condition or the animal must be destroyed humanely.

(c) Automated feeding systems must be checked at least once every 24 hours to ensure they are in working order and any problems rectified promptly.

Example indicators for Minimum Standard No. 6 – Food

. Goats are given sufficient daily feed to maintain appropriate body condition

. Any goat at a body condition score less than 2 is identified and receives appropriate remedial action through improved nutrition, husbandry practice, veterinary attention, or is culled from the herd

. Recently shorn goats are provided with additional feed

. Staff understand and ensure that they quickly identify, seek advice on and remedy:

- Nutritional deficiencies and metabolic diseases

- Conditions that might arise from faulty feeding such as poisoning, rumen acidosis or metabolic disturbance and have the resources to prevent or manage these conditions

. Any automated feeding system supplies the correct amount of feed when tested

Recommended Best Practice

(a) Body condition score at kidding should be at least 3 but not obese (BCS 5), to minimise kidding and metabolic problems.

(b) Goats should be maintained within the range of body condition scores 2 to 4 inclusive.

(c) Female goats should be well fed to meet pregnancy requirements, and in summer and autumn to meet lactational demands and to ensure that they are in good body condition prior to winter.

(d) Growing goats should be well fed in all seasons to realise their growth and future production potential.

(e) When browse and pasture growth are not adequate, alternative or supplementary feed should be provided.

(f) Changes in diet should be introduced gradually over several days, especially if feeding grain and/or other readily fermentable carbohydrates. This will allow rumen bacteria to adjust and thus prevent digestive problems and reduce the risk of death through grain poisoning (acidosis).

(g) Feeding methods should be designed to reduce fouling and wastage.

(h) Measures should be taken to minimise access of goats, and particularly pregnant does, to toxic plants and noxious or harmful materials including:

(i) most ornamental garden plants

(ii) toxic weeds

(iii) lead-based paints and toxic timber preservatives

(iv) electrical fittings and materials used in buildings such as plastics and papers

(v) loose fencing wire

(vi) twine and plastic wrap, such as baleage wrapping.

(i) When feeding brassicas and/or concentrates, a supplementary source of roughage such as hay, barley straw, silage or baleage should be added to the diet to aid proper digestion.

(j) Goats maintained for long periods of time on diets containing a high proportion of grain should receive appropriate dietary supplementation to ensure they maintain levels of essential vitamins and minerals.

(k) Supplementary feeds should be conserved and stored in a way that feed quality is preserved, mould-growth is inhibited and contamination by rodents, birds and cats is prevented.

(l) Mould-contaminated or excessively dusty supplementary feeds should not be fed to goats.

(m) Animals in ill-health, poor condition, late pregnancy or early lactation should not be deprived of food for longer than 12 hours.

General Information

Regular body condition scoring is an important management tool. Body condition scoring is a useful method of assessment to determine whether animals are receiving adequate nutrition (Appendix I). Hair may hide body contoursso goats must be handled and the bony points of the ribs, backbone and pelvis palpated for accurate assessment of body condition.

Where animals are housed or fed supplements, herd hierarchy and bullying can limit access of individual goats to feed. This can be dealt with by appropriate design and management (e.g. bysegregating animals or providing extra feeder space). Human intervention may be required to ensure all goats have access to feed.

Goats can gain significant condition (1.0 - 1.5 points) on spring and early summer grass and so individuals with access to large amounts of grazing at this time need to be monitored to ensure they do not become obese. Pregnant does may lose body condition during late pregnancy and early lactation and so care needs to be taken to ensure that they are receiving adequate nutrition at this time.

Goats have a high requirement for minerals, especially selenium and iodine.

Goats may be reluctant to leave shelter for extended periods during wet weather so it may be necessary to provide additional supplement feed that the goats can obtain without leaving their shelter. Goats will also not eat muddy or contaminated feed or pasture, and so care needs to be taken to ensure that the available feed is clean.

Many feedstuffs can constitute a danger to animal health. Goats prefer to browse and this may reduce their internal parasite burden, but they will readily eat many toxic plants. Stock handlers need to be aware of the possible dangers such as frothy bloat, nitrate poisoning, effects of toxic plants (including garden prunings), rumen acidosis, choke and the effects of fungal or bacterial contamination of feed.

3.2 Water

Introduction

The provision of an adequate supply of water is critical for maintaining goat health and welfare. Water needs for different classes of goats vary widely, and there is seasonal variation as well. If water needs are not met then animal health and welfare both deteriorate.

Minimum Standard No. 7 – Water

(a) All goats must have access daily to a reliable supply of drinking water that is palatable, sufficient for their needs, and not harmful to their health.

(b) In the event of a water delivery system failure, remedial action must be taken to ensure that daily water requirements are met.

(c) Any goats retained in yards or barns for longer than 12 hours must have access to drinking water.

(d) The water delivery system must be at a height that is accessible to all goats being supplied.

Example indicators for Minimum Standard No. 7 – Water

. Goats are provided with sufficient water

. Water quality is monitored and does not contain any contaminants at a level harmful to the health of goats

. The water reticulation system provides a sufficient volume of water to meet the daily needs of the goats, is monitored and maintained efficiently, and any failure is rectified immediately

. Yards and barns where goats are retained for periods of 12 hours or longer have an adequate water supply to meet the goat's requirements

. The height of troughs and drinkers ensure that goats do not suffer any injuries or distress, and the smallest goat in any herd can reach the water supply

Recommended Best Practice

(a) Watering facilities should be designed to reduce fouling and wastage.

(b) Troughs should be cleaned regularly and often to ensure that water is available and uncontaminated.

(c) Goats held in yards and barns for longer than six hours should have access to drinking water.

General Information

Water and shade needs increase when goats are grazing dry summer pastures and during drought, especially for young and light-weight goats.

Appropriate water allowance varies with animal size, diet and lactational state. When planning water for dairy goats, ensure that the reticulation system can provide nine litres/head/day. Goats drink less water than sheep when shade is provided, but in the absence of shade they will drink more.

Young goats and kids will often mistakenly jump into troughs during play. Deep troughs may be covered to prevent such accidents. Concrete blocks or bricks can be placed in the trough to enable any goat that falls in to escape.

4. Shelter and Housing Facilities

4.1 Shelter

Introduction

Goats do not possess the ability to withstand cold conditions to the same extent as other species of livestock due to a different distribution of fat and consistency of their coat. Goat farmers in New Zealand therefore need to be aware of the animal welfare implications of inadequate shelter, and develop management plans to provide shelter in adverse weather and after shearing to prevent heat and cold stress.

New Zealand pastoral systems may be exposed to the effects of the weather: heat, cold, rain, snow, and wind. While goats are resilient to cold temperatures when conditions are dry, occasions arise when weather extremes can cause stress and goats are particularly prone to hypothermia when conditions are wet. Shelter can also be important when environmental conditions are not extreme. Goats seek shelter for kidding and to hide their young, and a goat that is ill may separate itself from its group to seek protection in a sheltered area.

Signs of cold and heat exposure in goats

Early signs of significant cold exposure in goats include behavioural changes such as seeking shelter, facing away from the wind or rain with the back hunched, heads down, not eating, shivering, and huddling together. Where animals are exposed to cold conditions with which they cannot cope, their core body temperature drops below the normal range (hypothermia). As hypothermia progresses, animals become depressed and listless and may die. Such depression and listlessness indicates the need for urgent remedial action.

When goats are exposed to conditions that cause heat stress, they will try to find relief in a number of ways. These include increased respiration rate, reduced grazing activity, seeking shade, and increased water consumption. If the heat load continues to rise, animals will progress to open mouth panting with tongues extended when severe.

Effective shelter at stock level may be provided in a number of ways including the use of topographical features such as caves and overhangs, gullies or hollows of adequate depth, natural features such as stands of trees or scrub, hedges, shelter belts or thickets of plants. Alternatively, artificial structures such as field shelters, buildings or hay stacks can be used. Shelter needs to have the effect of providing goats with the ability to stay dry, to get off wet ground and to get out of the wind.

Management plans for dealing with stressful climatic events include ensuring that goats are in good physical condition to withstand periods of stress and by providing additional feed of appropriate type, e.g. increased roughage to help generate rumen heat and relieve cold stress.

Special attention is needed for:
. newborn kids
. newly-shorn goats – especially cashmere-bearing goats
. does close to kidding and at kidding
. lactating does
. animals in ill-health or stressed from other causes
. goats in areas subject to extreme weather

Minimum Standard No. 8 – Shelter

(a) All goats must have access to shelter to reduce the risks to health and welfare caused by exposure to cold or heat.

(b) Goats close to kidding must be provided with effective shelter to shield the dam and newborn kid from weather conditions.

(c) Very young kids that have been removed from their mothers for hand rearing must be provided with shelter at all times.

(d) Where animals develop problems associated with exposure to adverse weather conditions (including adverse heat or cold), priority must be given to remedial action that will minimise the consequences of such exposure.

Example indicators for Minimum Standard No. 8 – Shelter

. There is sufficient accessible shelter available for all goats in the event of adverse weather

. Newborn kids being hand-reared are provided with shelter and additional warmth (e.g. with a heat lamp) where conditions are cold

. Sick goats, kids being hand-reared and goats after shearing have access to shelter during inclement weather

. Where environmental conditions are such that goats start to develop signs of cold stress (e.g. shivering and huddling), immediate action is taken to move goats to effective shelter and provide additional feed, and their condition is monitored until it improves

. Where environmental conditions are such that goats start to develop signs of heat stress (e.g. open mouth panting with tongues extended), immediate action is taken to provide goats with more appropriate shade, and their condition is monitored until it improves

Recommended Best Practice

(a) Activities such as mustering, prolonged yarding and transportation should be avoided in hot, sunny and humid conditions likely to result in heat stress.

(b) Timing of shearing should be managed to minimise the risks associated with bad weather.

(c) To reduce the animal welfare impact of drought, floods and storms farmers should have an emergency response plan in place that will ensure that they can continue to meet their obligations under this code should any of these environmental extremes eventuate.

General Information

Unweaned kids that are being hand-reared can usually be protected from the effects of adverse weather by housing with dry bedding in a well ventilated building without draughts. Where kids are suckling from a doe, shelter should be provided so that the doe can ensure that the kid is situated in a sheltered area.

While hypothermia is generally not a problem for a well fed doe with normal hair cover, it may be a problem for both does and kids when kidding occurs in cold, wet or windy weather. Newborn, wet or sick kids, and those that have been transported or deprived of food, are particularly vulnerable and need to be managed accordingly. Goats up to yearling age are more susceptible to cold than adults. Adult goats can also experience hypothermic stress during cold or wet weather, especially after shearing or if they are thin or unhealthy.

Caution is required where bad weather is prolonged over a number of days, as animals will remain in shelter for extended periods and may not eat, thus increasing the risk of hypothermia.

Subordinate goats may be evicted from housing or shelter by dominant goats. All goats need access to sufficient shelter.

Protection can be provided by the appropriate use of covers, especially for sick animals and kids. Covered animals may be bullied and will need to be monitored. Horned goats may get their horns tangled in covers, and so will need to be monitored and separated if necessary. When covering kids, stock handlers need to ensure that the doe recognises and accepts the kids for feeding.

While ambient temperature and humidity are important factors contributing to heat stress, solar radiation is a major factor contributing to heat loading, especially in dark-coated animals. This is effectively reduced by shade. A substantial increase in body temperature may occur during mustering or when walking long distances on hot days. When goats are yarded in conditions that are hot and dusty there is an increased risk of an outbreak of enzootic pneumonia (a specific pneumonia condition that is linked to handling/management, especially associated with mustering). Shade is especially important to help mitigate this risk.

Information on preparing for emergencies and adverse events can be obtained from Federated Farmers, industry organisations, MAF, local or national goat associations, farm management professionals or veterinarians.

4.2 Farm Facilities

Introduction

Farm facilities include fences, gates, holding pens, internal yards, and additional areas such as a milking parlour, depending upon the nature of the goat production system. The proper construction, maintenance and operation of farm facilities are important to facilitate management and provide a safe and hygienic environment for procedures such as milking and shearing. Careful planning and design will assist movement of animals and minimise stress of both animals and handlers.

Minimum Standard No. 9 – Farm Facilities

(a) All facilities must be designed, constructed, maintained and operated in a manner that minimises the likelihood of distress or injury to animals.

(b) All electrical fittings and attachments to mains voltage must be out of reach of goats, or protected from interference or damage by goats.

(c) Floors must be constructed of a non-slip material.

Example indicators for Minimum Standard No. 9 – Farm Facilities

. The design and construction of facilities encourages the free movement of goats, enables them to walk comfortably, and prevents injury, crowding or smothering

. Stock handlers are trained and familiar with the operation of farm facilities and understand how incorrect operation may affect the goats in their care

. Floor surfaces are not slippery

. The farm maintenance programme ensures that problems such as damaged flooring, protrusions and sharp objects are removed or repaired in a timely manner

. Where injuries related to facilities occur, the reason is determined and the problem rectified

. There are no toxic health remedies, toxic materials, power cables or fittings in areas to which goats have access

. If sheep and cattle facilities are used, they are adapted to suit goats

Recommended Best Practice

(a) Loading ramps should be constructed with non-slip footing and have side-boards or rails to prevent animals falling off or getting their legs trapped.

(b) Netting fences that allow goats with horns to become trapped should not be used.

(c) Excrement should not be permitted to accumulate to an extent that it poses a threat to the health and welfare of goats.

(d) Toxic paint and timber preservatives should not be used on surfaces or floors that are accessible to goats.

(e) Any mechanical equipment used in the handling and management of goats should be maintained in sound working order.

4.3 Housing for Goats

Introduction

In South Africa, many dairy goats are housed at night in barns. While barns provide shelter from inclement weather, the main reason for this practice is to control predation and theft. In these situations animals are totally dependent on their handlers for all their feed and water requirements, welfare and safety, and farmers need to be aware there are additional responsibilities of care.

The well-being of the animals needs to be a key consideration when goat housing systems are designed and constructed. Does and kids require accommodation that is dry, well ventilated and draught-free. The optimal space allowances for housed animals vary depending on whether goats receive some or all of their feed supply in the housing area. The important factor is to allow enough area per goat to ensure that they all have the opportunity for adequate rest.

Goats prefer to lie on soft surfaces and are reluctant to lie down when the surface is slippery or wet. If the surface type and area per goat are not adequate there will be reduced lying times, underfeeding and an increased incidence of disease.

Minimum Standard No. 10 – Housing for Goats

(a) Goats must be able to lie down and rest comfortably for a sufficient time each day to meet their behavioural needs.

(b) Group housed goats must be able to stand, move about and lie down without undue interference from each other.

(c) Bedding must be of good quality material, friable, and with minimal risk of toxic agent contamination.

(d) Goats must be inspected at least once a day in the housing area for signs of discomfort or distress.

(e) Ventilation control or other measures must ensure that housed goats do not become overheated or cold stressed and prevent a build up of harmful concentrations of gases such as ammonia and carbon dioxide.

(f) Immediate and appropriate action must be taken to reduce ammonia levels if they exceed 25ppm at goat level.

(g) Goats must be managed in groups of suitable size and age and with regard to whether they have horns, to minimise injuries resulting from aggressive behaviour.

(h) Goats must not be released from prolonged periods indoors without ready access to shelter and shade.

(i) Goats must be provided with natural or artificial light of appropriate intensity for a minimum of nine hours each day.

Example indicators for Minimum Standard No. 10 – Housing for Goats

. Goats are all able to lie down and rest simultaneously

. At least $2m^2$ of space is provided per individual mature housed goat

. Bedding materials are dry and comfortable for goats to lie on

. Humidity, dust, temperature or ammonia (as detected by smell) are kept within acceptable levels

. Immediate corrective action is taken where ammonia levels are 25ppm or greater (by increasing ventilation, reducing litter moisture or reducing stocking density) and instances where this has occurred are documented

. Waste food and contaminated bedding material does not accumulate to an extent that it poses a threat to the health and welfare of the animals (e.g. wet, mouldy or noxious)

. Where thermal stress occurs it is immediately remedied

. Goats do not show signs of excessive bullying such as bite marks on ears and hocks, bare skin patches or ill-thrift

. Group composition and size is organised to avoid excessive bullying

. Inspections of goats show minimal signs of discomfort, distress or disease (e.g. sneezing, coughing, heavy breathing, runny noses or eyes)

. When goats that have been housed indoors for long periods of time are released, they are provided with shelter in weather conditions that are likely to result in heat stress, cold stress or sunburn

. Contingency plans are in place for dealing with any hazards or emergencies and incorporate the ability to rapidly release goats into a secure environment

Recommended Best Practice

(a) Emergency response plans should be in place for potential hazards, and all stock handlers should be aware of these plans and the routines required toensure the safety and welfare of goats and handlers in an emergency, e.g. evacuation plans.

(b) Feeding and watering systems should be constructed to be readily accessible, prevent competition and take into account the feed, stock type and size of the enclosure.

(c) The bedding area should be dry and covered with material to provide a comfortable resting surface.

(d) A minimum space allowance of $3m^2$ per mature goat should be provided to reduce the chance that underfoot conditions become wet.

(e) Ammonia levels should not exceed levels of 10ppm at ground level.

(f) During inspection periods, natural or artificial light of at least 50 lux should be available at the level of resting goats in loafing barns and houses.

(g) A feeding space/trough width of 40cm per adult goat should be allowed when all goats need access to feed. If food is continually available then space may be less.

(h) A separate pen should be provided to hold and treat unwell or injured goats until recovery, or to house goats that persistently bully other goats or are persistently bullied by other goats.

(i) Environmental enrichment should be used by making ‘toys’ available such as boxes or rocks on which the goats can climb, or by providing positive human contact or a radio to accustom goats to a range of noises and voices.

(j) Goats that are unfamiliar to each other should be monitored when mixed, to ensure that fighting is kept to a minimum.

General Information

As a guide, a level of 10 – 15 ppm of ammonia in the air can be detected by smell and an ammonia level over 25 ppm may cause eye and nasal irritation in people. In general, if the level of noxious gases within a housing facility is uncomfortable for people, it will be uncomfortable for goats. Such levels compromise animal welfare and may predispose goats to respiratory disease and reduced performance.

The material used as bedding, or on surfaces and flooring, for goats needs to be chosen with the aim of minimising the presence of toxic chemicals that could be poisonous to goats or materials that could cause irritation of the skin.

As a guide, 50 lux is sufficient light to read a newspaper at arm’s length.

Signs of bullying include bite marks on ears and hocks, bare skin patches and ill-thrift. These are also an indication that goats do not have good access to feed. Excessively bullied goats will tend to remain outside of the main group.

Care is required where hand-reared kids are group housed as they often crowd together, which can result in smothering of the kids. To help prevent this, corners need to be screened from the pen and if providing an external source of heat, e.g. a heat lamp, measures need to be taken to ensure that kids cannot crowd below the heat source.

5. Husbandry Practices

5.1 Kidding Does

Introduction

Kidding is a critical period for the welfare of both doe and kid. Potential compromises to animal welfare at this time are diverse and include feeding levels during pregnancy, disturbance from other animals and humans, predisposition to dystocia (difficulties during birthing), the weather and available shelter. The appropriate level of supervision will differ depending whether does are intensively or extensively managed.

Domestication of the goat has meant that stock handlers have to balance the natural tendencies of goats to give birth undisturbed and often in isolation, with any

requirements to assist with difficult births. The requirements of does during kidding may also vary between breeds with some breeds being more likely to exhibit problems during kidding than others.

Nutrition around the kidding period is especially important (see Section 3 Feed and Water). Trace element and mineral status need to be considered, as well as feed quality and quantity.

Minimum Standard No. 11 – Kidding Does

(a) Intensively farmed goats must be inspected frequently before and after kidding to ensure that they are not experiencing difficulties.

(b) If any doe is having difficulty kidding and the stock handler is unable to resolve the problem, expert advice must be sought as soon as possible, or the animal humanely destroyed.

(c) Excessive traction must not be used to kid any doe.

Example indicators for Minimum Standard No. 11 – Kidding Does

. Mortality rates (kids and does) are documented and minimised

. Sufficient staff with appropriate training are available to inspect animals around the time of kidding

. Farm routines show that inspections occur at least twice every 24 hours in intensive farming situations, that inspection results are analysed and necessary changes are incorporated into future planning

. Stock handlers have knowledge of kidding problems and how to correct them and have appropriate equipment to assist kidding does

. Stock handlers have knowledge of how to access expert advice, and such advice is available and is sought when required

Recommended Best Practice

(a) Where animals are unaccustomed to daily supervision such as in extensive systems, breeds or strains suited to easy births and good maternal care should be used. In more intensive systems, where animals are habituated to the presence of humans and management activities, assistance should be provided to animals experiencing difficulties without unduly disturbing others giving birth in the vicinity.

(b) Easy-kidding sires should be selected for goatling mating as large kids can cause significant injuries to small does.

(c) Goats close to kidding should be inspected frequently; preferably at least every 6 hours.

(d) Kidding paddocks should provide dry ground, shelter and protection from adverse weather.

(e) Does that have been trying to kid for more than 1 hour without progress should be given assistance or veterinary help (kidding in this context means vigorous abdominal straining).

(f) To minimise the potential for damage to either doe or kid, controlled traction should only be used if the operator has diagnosed an unrestricted birth canal and the kid is in the normal position for delivery and should be conducted with plenty of lubrication. The amount of traction used should be no more than a single person can apply.

General Information

The important features to be taken into consideration when deciding to assist a doe to kid are:
. an assessment of the size and number of kids, and whether they are alive and in the correct orientation for delivery;

. an assessment of doe health and condition; and

. the amount and direction of traction, which alters as the kid enters and passes through the pelvic canal.

5.2 Hand Rearing and Fostering Kids

Introduction

Newborn and young animals are particularly vulnerable to negative welfare outcomes resulting from adverse environmental conditions and poor management. Consequently, all kids require special attention to ensure they are healthy and to allow their individual needs to be assessed.

In dairying systems, kids are removed from their mothers at a young age. Consideration of the health of the doe, the effects of early weaning on her welfare and the need to be milked regularly are referred to in Section 5.3 Lactating Does and Milking Systems.

Good management of young kids is essential for their welfare. Some are destined to only live a few days before they are killed, but that does not remove the obligation to manage them to the same standard as every other animal on the farm.

Colostrum is the first milk produced by the doe after kidding and contains special nutrients and antibodies that are essential to protect the kid from disease. The newborn kid absorbs antibodies from colostrum, but begins to lose this ability from

about six hours after birth. In addition, the concentration of antibodies in the colostrum diminishes rapidly after the doe has kidded and is reduced markedly after two milkings.

A newborn kid does not have a functional rumen, and therefore needs to be given liquid feeds until the rumen has developed sufficiently to allow it to utilise solids as its sole source of nutrition.

Minimum Standard No. 12 – Hand Rearing and Fostering Kids

(a) Premature kids that are unlikely to survive, and kids that have debilitating congenital defects, must be humanely destroyed immediately.

(b) Kids must be handled and moved in a manner that minimises distress and avoids injury or suffering.

(c) Newborn kids must receive sufficient colostrum or a good quality commercial colostrum substitute.

(d) Hand-reared kids must be given suitable liquid feeds until the rumen has developed sufficiently to allow it to use solids as the sole feed source.

Example indicators for Minimum Standard No. 12 – Hand Rearing and Fostering Kids

. Planning for kidding includes ensuring that stocks of colostrum or a suitable substitute are on hand to supplement kids if necessary

. Stock handlers' behaviour towards kids is patient

. Stock handlers understand the importance of colostrum and are trained to provide it when a kid has not received it in sufficient amounts, e.g. by stomach tube

. Farm staff are trained in the humane destruction of kids

. Stock handlers are trained to recognise if a kid is not receiving adequate feed and remedy the situation

. Kid-rearing programmes provide kids with their specific nutritional needs as a pre-ruminant

. Kids are not weaned until they are receiving at least 75% of their daily feed requirements from solid feed

Recommended Best Practice

(a) Every kid should receive colostrum as soon as possible after birth, preferably within the first six hours. If it is suspected that a kid has not received colostrum, then colostrum or a suitable substitute should be given to the kid within 24 hours of birth.

(b) Colostrum, milk or milk replacer should be fed at the rate of 10-12% of bodyweight per day, preferably in four or more feeds per day.

(c) Kids should not be weaned until they are at least six weeks old, and preferably not until they are 8-10 weeks of age.

(d) During the first 48 hours of life, liquid feeds should be warm, but not above the kid’s normal body temperature (39ºC).

(e) Colostrum should not be overheated or micro-waved as this will destroy antibodies.

(f) Kids should also have access to solid feeds (appropriate concentrates, hay, silage or pasture) from their first week of life. Consumption of these solids will enhance rumen development and will contribute increasingly to satisfying the kid's nutrient requirements.

(g) Kids should have adequate access to fresh water.

General Information

Colostrum, either fresh or stored, can provide local immunity in the gut and is a highly digestible, high quality food. Note that antibodies cannot be absorbed by the kid beyond 24–36 hours after birth and so colostrum needs to be fed as soon as possible after birth.

Cow colostrum, ewe colostrum, or commercial dried whole colostrum may be used if goat colostrum is unavailable or where a disease management programme is in place. Doe vaccination programmes, e.g. clostridial vaccines to boost the level of antibodies in colostrum, may be considered. These practices can be discussed with a veterinarian.

Hygienic practices are required for the maintenance of feeding equipment, bedding material and toileting areas to keep kids healthy. When kids are fed in groups, care is needed to ensure that all kids, even the slowest drinkers, are consuming what they need.

5.3 Lactating Does and Milking Systems

Introduction

In dairying systems, efficient milking is essential for the good health, welfare and productivity of the doe. The modern dairy goat may produce more milk than its kids can consume and needs to be milked regularly for good udder health; farmers traditionally milk goats twice a day.

The milking process needs to be carried out calmly and with regular routines to create a stress-free environment for the doe. This will ensure that complete milk let-down occurs in the doe before or during milking. Gathering goats from the paddock or housing facility, driving along the race, holding them in the yard, and entering and exiting from the milking parlour are all part of this process.

Minimum Standard No. 13 – Milking

(a) All does must be milked or suckle kids frequently enough during lactation to minimise discomfort and maintain udder health.

(b) Milking equipment must be well maintained to minimise the risk of damage and infection of the teats and udder.

Example indicators for Minimum Standard No. 13 – Milking

. Any goat with an over-extended udder or other signs of discomfort (e.g. restlessness, heat or pain on palpation) is examined immediately, the cause determined and remedial action taken

. Upon inspection of teats and udders, minimal damage from milking equipment is observed

. Stock handlers have knowledge of udder health and have procedures in place to recognise and treat problems

. Records show that the milking plant has passed its routine inspection and audit

Recommended Best Practice

(a) Regular routines for milking should be established, in order to minimise or avoid distress.

(b) Does in dairying systems should be milked within 12 hours of separation from their kids.

(c) All lactating does, including those being sold or exhibited, should be milked or suckle kids at least once every 24 hours unless good management practices dictate otherwise.

(d) To minimise the risk of discomfort or damage to the teats, the partial vacuum in the milking machine should not be higher than 40 kPa and the teat-cup liners and the pulsation system should function properly.
(e) Care should be taken to avoid over-milking.

(f) Milking machines should be tested at least once a year and more frequently if the milking process is compromised, as indicated by milking speed, teat damage and/or doe behaviour. All faults should be corrected immediately.

(g) The risk of teat and udder infections should be minimised by practising good hygiene.

(h) The teat condition of does in dairying systems should be monitored and an appropriate remedy used if condition deteriorates.

(i) Goatlings that are to be managed in dairying systems should be familiarised with the milking facility prior to kidding.

(j) Where there is a risk of an extended failure of the electricity supply, provision should be made for an independent generator to operate the milking machine and ancillary equipment.

General Information

Milk removal, conducted in good environmental conditions and with an efficient milking machine, is complete after about 6-8 minutes for most does, depending on milk yield and rate of milk flow. Signs of discomfort (kicking the cups off and/or constant movement by the doe while milking) and/or an increased incidence of sores on the teats can indicate faults in the vacuum level or pulsation system, or the presence of stray electrical voltages (electrical shorts) in the farm dairy.

Signs of poor teat condition include redness and chapping. This is more likely to occur during wet and windy weather.

5.4 Drying-off Dairy Does

Introduction

To prepare for their next kidding, does in dairying systems generally go through a drying-off process to end their lactation. Individual animals may be dried-off earlier for other farm management reasons (e.g. feed shortages). The aim is to shut down milk secretion and allow the teat canal to seal as rapidly as possible. While a short period of reduced food intake may assist with this process, the requirements of Section 3 Food and Water need to be met.

Recommended Best Practice

(a) The drying-off process should be done in a manner that minimises discomfort.

(b) For at least three weeks after dry-off, does should be monitored weekly for signs of udder pain or swelling.
(c) Dairy does that are being dried off should be kept in a clean area to minimise the risk of udder infection.

General Information

Does may be milked less frequently before drying off to assist with discomfort at drying off. Although lower feeding levels seem to reduce discomfort after dry-off, does fed less are likely to experience hunger. Investigation of alternative dry-off procedures, such as feeding low-quality diets ad libitum, is recommended as these methods can maximise the benefits of lower milk yields before dry-off, without causing hunger.

5.5 Reproductive Technologies and Selection of Animals for Mating

Introduction

Breeding management techniques and programmes that optimise genetic potential have been adopted in all sectors of the goat industry in South Africa. In addition to selecting animals with desirable genotypes for breeding, there are a number of established and developing technologies being used to facilitate genetic gains and better manage animals.

Minimum Standard No. 15 – Reproductive Technologies

(a) Electro-ejaculation and laparoscopic artificial insemination must be carried out only by veterinarians, or by trained and competent operators under veterinary supervision, using appropriate pain relief, sedatives or anaesthesia.

(b) Cervical artificial insemination and pregnancy diagnosis must only be carried out by persons trained and competent with the techniques.

Recommended Best Practice

(a) Less invasive procedures (e.g. semen collection using an artificial vagina) should be used in preference to more invasive ones (e.g. semen collection by electro-ejaculation).

(b) Any procedure used to alter the pattern of seasonal breeding, or to increase litter size, should only be used where the extra requirements to ensure good welfare (feed, farm labour, shelter and other inputs required before and after the animal gives birth) have been thoroughly assessed and can be provided.

(c) When selecting goats for breeding, attention should be given to selecting animals of appropriate physical size (both buck and doe), kidding experience and previous management history to match the system in which they will be farmed (i.e. previously kept extensively or intensively).

General Information

Multiple births are common with goats, especially the dairy breeds where three or four kids per pregnancy are common. Does carrying multiple pregnancies require more feed during the latter stages of pregnancy. Gestation length may be shorter

and there may be more malpresentations or difficult births, and poorer bonding between doe and offspring. These factors mean increased supervision is necessary when multiple births occur to ensure newborn animals survive and receive colostrum.

5.6 Painful Husbandry Procedures

Introduction

Farming goats involves a number of husbandry procedures such as disbudding, castration and occasionally dehorning which have been identified as causing pain and distress. [New Zealand: These procedures are covered in a separate Code of Welfare and readers are directed to the Animal Welfare (Painful Husbandry Procedures) Code of Welfare 2005 for information and requirements].

Minimising the stress, pain or discomfort of these procedures requires attention to the suitability of the area in which the operation is performed, the catching facilities, the type and amount of restraint, the selection and maintenance of appropriate instruments, good hygiene, the subsequent care of the animals and the skill of the stock handlers carrying out the procedures.

Recommended Best Practice

(a) Pain relief should be provided when performing any painful husbandry procedure.

(b) Male goats that are castrated before puberty should be monitored for joint abnormalities and arthritis as they age as, in some cases, they can experience abnormal continued growth of the long bones causing their legs to become distorted.

General Information

The skull of a goat kid is much thinner than that of a calf. Thermal cautery disbudding techniques need to be carried out carefully to avoid damaging the underlying tissues, including the brain.

5.8 Animal Identification

Introduction

Ear tags are commonly used to identify individual goats. Permanent identification such as ear notching, marking and tattooing, and branding may also be used. [New Zealand: These procedures cause pain and the general principles outlined in the Animal Welfare (Painful Husbandry Procedures) 2005 Code of Welfare apply.]

Minimum Standard No. 16 – Identification

(a) All identification procedures must be applied by a competent operator.

(b) Pain relief must be used with hot or freeze branding.

Example indicators for Minimum Standard No. 16 – Identification

. No ear injuries or infections are apparent

Recommended Best Practice

(a) Goats should not be branded.

(b) Permanent tags should be inserted using the applicators designed for the purpose and according to the manufacturer's specifications and with good hygiene.

(c) Goats' ears are very sensitive and care should be taken when inserting ear tags to avoid hitting cartilage ridges or major blood vessels.

(d) Any infection resulting from tag application should be treated promptly.

(e) The size and number of tags required should be kept to a minimum.

(f) Where tattooing is used, it should be carried out by a competent operator.

(g) The use of ear punches for identification purposes should be restricted to those situations where tagging is not feasible. As little as possible and no more than 10% of ear tissue should be removed using an instrument that is clean and sharp.

General Information

Permanent identification of individual goats is required by various legislation and laws; goat industry organisations can provide further information.

Neck bands may be useful for temporary identification of young kids but their use requires supervision to prevent entanglement.

5.9 Pre-transport Selection

Introduction

When selecting animals for transport, other industry standards and/or codes for transport need to be considered. Requirements for transport beyond the farm gate [are described in the Animal Welfare (Transport within New Zealand) Code of Welfare 2011 and conditions for slaughter are described in the Animal Welfare (Commercial Slaughter) Code of Welfare 2010].

In cases of doubt about the condition of an animal, a veterinarian needs to be consulted. A veterinarian can certify an animal as fit for transport, in which case the appropriate documentation must accompany the animal on its journey.

Transporting goats can cause them significant stress. This is particularly the case for feral goats and goats that are not used to human contact. The presence of horned goats in the group will also exacerbate stress. Good stockmanship is essential to minimise anxiety and distress during transportation.

Minimum Standard No. 17 – Pre-transport Selection

(a) All goats selected for transport must be examined by the person in charge prior to loading to ensure that they are fit for transport and are able to withstand the journey without suffering unreasonable or unnecessary pain or distress.

(b) Any animal likely to give birth during transport must not be selected.

(c) Every unweaned kid to be transported off the farm must have been fed at least half of that day's ration of colostrum or milk, not more than two hours before transportation.

Example indicators for Minimum Standard No. 17 – Pre-transport Selection

. All goats transported are fit and healthy and can support their weight on all four limbs

. Unweaned kids to be transported off the farm are given a feed no more than two hours before they are loaded

. No goat gives birth during transport

Recommended Best Practice

(a) The design of holding facilities at loading areas should offer adequate shelter and comfort for all goats, easy access for the stock handler and transport operator, and facilitate efficient handling of the animals.

(b) In the absence of ramps, when goats have to be lifted onto a transporter, their whole body should be supported in the lift.

(c) Pregnant goats should not be selected for transport in the last three weeks before the expected date of kidding.

(d) Goats should not be mustered for long distances the day before transport.

(e) Every effort should be made to ensure kids and cull goats are transported for the shortest possible time.

(f) Goats that will not be acceptable to the processing plant should not be loaded for transport.

(g) During preparation for transport, prolonged deprivation of food and water should be avoided. Yearling and adult goats should be held off green-feed for a minimum of four to six hours before transportation but for no more than 12 hours. Clean water should be available during this time.

(h) When undertaking long journeys, goats should be nutritionally prepared beforehand by supplying them with the type of feed that they will receive at rest stops during the journey and upon its completion.

(i) Dogs should be under control at all times and should not be used to move young kids.

General Information

The preparation of mature animals for transport, especially pregnant does, will depend on the method, the distance and the time involved. In particular the suitability of the truck for transport should be considered – some sheep trucks are not appropriate for dairy does. For guidelines on preparation for long-haul journeys, a veterinarian or suitably experienced transport operator should be consulted.

Providing sheds and holding facilities that are darkened and minimise noise will assist in settling goats being held for transport.

6. Health

Introduction

Owners and persons in charge of goats have an obligation to ensure that the health needs of their animals are met. Stock handlers need to be familiar with the more common health problems of goats and observe their stock frequently and carefully for early signs of disease. Any potential problems need to be noted as early as possible and steps taken to rectify the problem.

Minimum Standard No. 18 – Health

(a) Those responsible for the welfare of goats must be competent at recognising ill-health or injury and take prompt remedial action as appropriate.

(b) Any injured or ailing goat must be immediately treated by a knowledgeable and competent stock handler or be destroyed humanely.

(c) A veterinarian must be consulted if there is any significant disease or injury or if an animal health problem persists in spite of treatment.

Example indicators for Minimum Standard No. 18 – Health

. Stock handlers are trained and competent to recognise ill-health and injury and to undertake prompt action and treatment as necessary

. All sick or injured goats are treated immediately by a competent stock handler or destroyed humanely

. There is a documented herd health plan that includes prophylactic treatments such as vaccination schedules and parasite management

. Animal health records show that all animal remedies have been used appropriately

. A veterinarian is consulted when a significant animal health problem persists

Recommended Best Practice

(a) Goats should be inspected as frequently as necessary to detect any problem at an early stage.

(b) Stock handlers should be familiar with the more common health problems of goats and observe their stock carefully for early signs of disease including pain, discomfort and weight loss. They should take early action to prevent worsening of any condition, and organise prompt expert attention should this occur.

(c) If appropriate, goats showing signs of ill-health should be separated from herd-mates to prevent bullying and to facilitate treatment.

(d) Any goat that is unable to stand should receive veterinary attention within 48 hours of becoming recumbent or be destroyed humanely. These recumbent goats should be inspected frequently, kept in an upright position (i.e. lying on their sternum with legs tucked under the body) on a soft dry surface, and shifted from side to side as often as possible.

(e) On commercial farms, animal health records should be kept, including details and timing of parasite control measures, foot care procedures, appropriate vaccinations, supplementation of nutrients that are deficient in the diet, culling strategies and cross-grazing with other species as appropriate.

(f) Goats should be given regular and effective treatments to prevent internal and external parasite burdens, as recommended by veterinarians or product manufacturers.

(g) Animal remedies should only be used in accordance with registration conditions, manufacturer’s instructions and/or professional advice.

(h) Goats should be managed with the aim of minimising the incidence of lameness.

(i) All staff should be trained in the prevention, identification and treatment of lameness and where it is observed, the affected foot is carefully examined and treated immediately.

(j) Veterinary advice should be sought when there is:

(i) persistent ill-thrift, lameness, pain or poor performance that does not respond to treatment

(ii) concern about the welfare of the animal.

General Information

Diseases that can be particularly problematic for the goat farmer include gastro-intestinal parasitism, Johne's disease, outbreaks of pneumonia, scabby mouth (orf), periodontal disease and CLA (caseous lymphadenitis). When these diseases are suspected, an expert should be consulted to confirm the diagnosis and to advise on appropriate disease control measures to be included in the animal health programme. Organic production systems may present special challenges to goat health and welfare and require particular attention to management and disease prevention strategies to avoid health and welfare compromise.

Parasitic Diseases

Farmed goats are relatively susceptible to worms and, unlike sheep and cattle, do not develop age-related resistance to worms. Management systems therefore need to be structured to combat internal parasites throughout the life of the goat. Drench resistance has developed in some worm species and this can limit the treatment options available to the goat farmer.

There are a greater number of options for worm control in fibre producing goats as with-holding times on anthelmintics (meaning that milk and meat from treated goats cannot be sold within that period) can limit the available options for dairy and meat goats.

Goats are known to metabolise anthelmintics faster than sheep and so dose recommendations need to be tailored specifically for goats.

Diseases of the Hoof

Lameness is a painful condition and warrants immediate and effective treatment. Hoof growth is rapid in goats and if the environment (including housing) does not allow the hoof to wear away naturally, then routine trimming may be required to prevent the horn from curling underneath the foot. Goats are prone to developing foot scald and foot rot when conditions are wet because of the deep interdigital cleft between the toes.

Regular foot care including foot-bathing where necessary will assist with maintaining good hoof health and minimising lameness. In many animals, judicious hoof trimming and foot baths of zinc or copper sulphate will achieve the desired result.

Skin Acclimatisation

Goats need time to acclimatise to changing conditions when they are moved from indoors to outdoors. White haired and pink skinned goats that are not accustomed to being in direct sunlight may become sunburnt if moved outside their housing area, e.g. when barns are being cleaned out.

7. Emergency Humane Destruction

Introduction

The overriding consideration during emergency humane destruction is to prevent the animal from suffering further pain or distress. Humane killing depends on rapidly inducing failure of brain function. This can be achieved by causing sufficient brain damage to render the animal insensible and then cutting the major blood vessels of the neck to cause heart failure and death.

There are a number of methods that may be used for the humane and effective killing of goats on farm.

Minimum Standard No. 19 – Emergency Humane Destruction

(a) Goats must be rapidly rendered insensible and remain in that state, until death.

(b) Persons undertaking emergency destruction must be competent in the handling and killing of goats.

(c) The spinal cord must not be severed or broken in any goat, until after death.

Example indicators for Minimum Standard No. 19 – Emergency Humane Destruction

. Written farm procedures identify the appropriate methods used for humane destruction of unwanted animals

. Stock handlers who carry out the humane destruction of goats are trained in appropriate routines

. Stunned goats do not recover consciousness and death occurs rapidly after any stunning procedure

Recommended Best Practice

(a) Free-bullet firearms should never be used at point blank range. Shotguns and rifles should be at least 10 cm from the head when aimed.

(b) Captive bolt firearms, of a suitable design and calibre, should be used to render animals insensible.

(c) Wherever possible, emergency slaughter of goats should be conducted discreetly and at a site distant from other animals so as not to cause anxiety to other goats.

General Information

Whenever a firearm is used, it is very important that the operator is competent to use it and takes care in ensuring the safety of themselves and other animals.

There are two types of captive bolt firearm – penetrating and non-penetrating. A penetrating captive bolt enters the skull and comes into contact with brain tissue; a non-penetrative captive bolt employs a “mushroom” percussive head. Both methods provide a concussive blow to the skull, resulting in insensibility because of brain tissue damage, although the damage caused by the penetrating captive bolt will result in less chance of the animal regaining sensibility.

The correct position and direction of aim are critical for the humane and effective killing of goats and kids.

Hornless goats
The optimum position for hornless goats is on the midline.

Horned goats
The optimum position for horned goats is behind the poll, aiming towards the angle of the jaw.

8. Quality Management

Introduction

A quality assurance programme that provides written procedures is a useful tool to ensure that standards of animal welfare and husbandry are maintained, especially on commercial farms of all types. As well as providing for the minimum standards and recommendations for best practice of this code, a quality assurance programme will enable the meeting of statutory requirements such as the recording of animal treatments.

Recommended Best Practice

(a) To ensure that standards of animal welfare and husbandry are maintained, each farm should have a quality assurance programme that provides documented animal health and welfare procedures.

(b) The elements of the quality assurance programme should provide for the minimum standards and, where possible, the recommendations for best practice of this code.

(c) The quality assurance programme should enable all incidents resulting in significant sickness, injury or death of animals to be investigated and documented.

(d) The quality assurance programme should incorporate continual review of existing systems, procedures and training schedules that could enhance the welfare of goats.

(e) The quality assurance programme should include a record of problem issues identified and the remedial action taken.

Appendix I: Body Condition Scoring (BCS)

This system can be used broadly for all breeds of goats farmed in South Africa, although it is useful to note that dairy goats in general tend to be leaner than meat goats. The use of body condition scores (BCS) is less accurate for assessing kids and growing goats. Body condition scoring is based on palpation of the spine, pelvis and rump of live animals. The simple scoring system varies from score 0 (emaciated) to 5 (obese). Visual assessment of body condition of goats can be difficult where the coat is long e.g. in Angoras in full fleece. A long fleece can disguise the actual appearance of the pelvis, ribs and spine, while a short coat can make the animal's appearance more irregular and highlight these areas. The only reliable method of assessing animal body condition is by palpation of the ribs, spine, pelvis and rump.

0 (Emaciated) No internal or external fat reserves

1 (Poor) Loin:muscle on edges of transverse process, bones very sharp, thin skin. Vertebral angle has little muscle and is very concave. Spinous processes very prominent with no muscle in between. Rump:no Sharp outline visible. Pins: no muscle between skin and bones.

2 (Thin) Loin:Muscle extends to the edges of transverse process, spacing can be felt between the vertebral processes, thin skin. Rump: Outline slightly contoured; light padding but bones still somewhat prominent and very easy to feel. Pins: Sharp, little padding.

3 (Good) Loin: Muscle and subcutaneous fat covers edges of vertebral process; individual bones are somewhat distinct.Rump: Smooth, without signs of fat; pelvic bones and spine are distinct. Pins: Slight pressure needed to feel the pin bones

4 (Fat) Loin: Vertebral processes indistinct and firm pressure needed to feel them. Vertebral angle rounded but not yet bulging over spinous processes. Spinous process spacing difficult to detect; spine felt as a hard line. Rump: Heavily padded with fat; bones can only be felt with firm pressure. Pins: Heavily padded with fat, and firm pressure needed to feel them

5 (Obese) Loin: Edge of vertebral processes and spacing between too fat to feel bones. Vertebral angle bulges over the level of the spinous processes. Spine lies in the centre of a groove of fat. Rump: Buried in fat, bones very indistinct. Pins: Buried in fat, hard to locate