



## **Minimum Care Standards for Horses – Addendum “A”**

The following information represents the minimum standards which are commonly accepted by responsible horse owners and caretakers. These standards are upheld by Circle F Horse Rescue Society, and are strongly suggested for new adopters. The following has been excerpted from the National Code of Practice for Horses, developed by the National Farm Animal Care Council.

For the purposes of clarity, we offer the following definitions:

### **Owner / Caretaker**

- Any person who owns, cares for, possesses, controls or otherwise assumes custody of a horse

### **Neglect**

- Failure to provide proper shelter, food or water
- Failure to provide a safe and healthy environment
- Failure to provide veterinary or other professional support for horses which require such attention

### **Abuse & Cruelty**

- An intentional act, omission or neglect causing or permitting unnecessary or unjustifiable pain or suffering.
- Physical trauma, such as poking with a stick, cattle prod, whipping or causing pain, for whatever reason.
- Use of excessive restraint, such as tying or otherwise confining movement for long periods of time.
- Causing or allowing a horse to be chased by a predator

Horses can live for 30 years or longer. Ownership of these animals can be a great pleasure, but it is also a significant responsibility associated with a long-term commitment of time and money. Owners and staff have a duty of care for the animals they are permanently or temporarily responsible for. A parent or guardian of a minor needs to take responsibility for any animal that is owned or cared for by the minor. If an owner leaves the animal in the care of another person, it is the owner's duty to ensure the person is competent and has the necessary authority to act in an emergency. In this case, it may be advisable to have a written boarding contract in place.

Responsibility for an animal includes having an understanding of their specific health and welfare needs, and having the appropriate knowledge and skills to care for the animal. Those responsible will also have to comply with relevant legislation and be aware of the Requirements and Recommended Practices in the Code. They should also know when to seek advice from a knowledgeable person.

### **Pastures**

Horses are highly adaptable to many weather conditions - keeping them outdoors or giving them frequent outdoor access is encouraged. Mud management is an important factor in the southwestern region of BC. If horses do not have access to a mud-free site, they can become lame and/or acquire painful skin or hoof conditions.

The risk of injury increases when horses are overcrowded in pastures or yards or when there is competition for any resource. The amount of outdoor space horses need depends on many factors. Generally a minimum space allowance per horse, in m<sup>2</sup>, is 2 to 2.5 times the height of the horse (at the withers) squared (4). Ideally, there should be enough space to allow horses to canter.

For an open-front shed housing more than one horse: provide 11.1m<sup>2</sup> (120ft<sup>2</sup>) each for the first two horses and 5.6m<sup>2</sup> (60ft<sup>2</sup>) for each additional horse kept in the pasture or paddock.

At a minimum, each horse must have enough space to move easily, walk forward, turn around with ease and lie down in a normal resting posture. There must also be sufficient space for subordinate horses to escape aggression.

In muddy conditions horses must, at a minimum, have access to a mud-free, well-drained area in the pasture/yard on which to stand and lie down.

The application of fertilizers, pesticides, herbicides and farm manure must be timed to prevent any health risks to grazing horses or contamination of ground water.

Horses can adapt to a wide range of environmental conditions due to their physiological and behavioural responses that help them maintain body temperatures within a normal range. Shelter can be natural (e.g. trees, hedges) or constructed (e.g. shade cloths, stables). Research shows that horses are particularly likely to seek shelter during rainy, windy conditions or snowy, windy conditions. The following equines are more vulnerable to cold, damp weather:

- foals and geriatrics
- equines that are injured, sick or have a low body condition score
- equines with a moist or wet coat, due to rain or sweat (a wet coat has reduced insulation capacity). The hair coat of donkeys makes them particularly vulnerable to cold, damp weather
- body clipped equines
- equines that are not acclimatized to cold, damp weather.

Blankets are sometimes used to offer protection from weather and insects. However, blankets can lead to sores and heat stress. Blankets can also mask changes in the horse's health, and some of these changes can occur quickly (e.g. skin infections, a change in weight or body condition score). Therefore, if blankets are used, the condition of the horse beneath the blankets must be examined at least weekly.

### **Thermoregulation**

Within a temperature range called the "thermoneutral zone" animals do not have to expend any additional energy to maintain normal body temperature. In horses, the thermoneutral zone is between 5 and 20°C. Within the lower or upper temperatures of this range, horses may modify their behaviour without any increased energy needs. In temperatures outside the range, increased metabolic energy is required to maintain normal body temperature.

Shivering is a heat-producing response to cold temperatures. It may be seen particularly when the horse is unable to move around, whether indoors or outdoors. Shivering horses are not thermally comfortable.

Horses should also be monitored for heat stress in hot ambient temperatures. A horse facing heat stress may appear weak or disoriented. Other signs of heat stress include muscle tremors and shallow or rapid breathing.

### **RECOMMENDED BEST PRACTICES**

Horses must have access to shelter (constructed or natural) that protects them from the harmful effects of extreme weather conditions.

Promptly assist individual horses that are showing signs of heat or cold stress.

If blankets are used, the condition of the horse beneath the blankets must be examined at least weekly.

Blankets must be appropriate for the weather conditions and not result in heat stress.

1. ensure there is sufficient shelter space to accommodate all horses in a given area or paddock at the same time
2. build or renovate shelters for the easy removal of wastes
3. remove blankets daily to inspect the horse's condition
4. ensure blankets are well fitted and in good repair. If blankets are used in wet conditions, they should be waterproof and breathable.

### **Mixing and New Arrivals**

Horses are herd animals and prefer to live in groups. A single horse kept on a farm may benefit from increased human contact or the companionship of other grazing species (e.g. sheep). Donkeys have a particularly strong need for social opportunities and may become depressed or apathetic when separated from a former companion. This can have health implications, particularly if they go off feed.

Within a herd structure, horses interact on a dominance hierarchy. Some horses are more aggressive and may not be suitable for group turnout. When forming new groups, the introduction of new animals brings a risk of injury to horses.

Aggression can be reduced by increasing the space allowance (initially or permanently) and/or allowing horses to become familiar with an existing group by first keeping them in an adjacent area (but separated by a strong fence or stall wall).

### **RECOMMENDED BEST PRACTICES**

Horses kept in groups must be managed in a way that minimizes the risk of injury.

1. get advice from a knowledgeable and experienced horseperson on the first introduction of horses
2. segregate horses into compatible groups. Where necessary, take into consideration the nutritional needs, age, sex and size of the horses

3. ensure newly formed groups are monitored frequently and checked for injury
4. separate animals that prove to be incompatible.

### **Fences and Gates**

Several types of fencing materials are suitable for horses, including wood, metal pipe, mesh and electric. Page wire, barbed wire and narrow gauge high tensile steel wire are used in large grazing settings but should be avoided in closely-confined paddocks. These types of fencing can cause severe injury to horses, especially if in poor repair.

Unless horses are effectively contained through strong, well-maintained fencing and gates they may leave the property, which brings a significant risk of injury to that horse (e.g. road accidents) and the safety of other horses and humans. The strength and height of fencing is particularly important for stallion enclosures.

#### **RECOMMENDED BEST PRACTICES**

Fences must be constructed and maintained to minimize the risk of injury and must be strong enough to contain horses. Refer to municipal fencing by-laws, if applicable.

Electric fences must be installed according to the manufacturer's specifications. All power units for electric fences must be designed to prevent short circuits and/or stray voltage.

Temporary electric fences used for strip grazing or pasture rotation are not an acceptable permanent perimeter fence for horses.

1. introduce horses to unfamiliar fenced areas during daylight hours to reduce the risk of injury
2. mark smooth wire and other hard-to-see fencing in such a way that it is more visible to horses (e.g. tie flags to the fencing)
3. supervise horses when they are first introduced to electric fencing (and avoid mixing new horses at the same time as the group is first introduced to electric fencing)
4. ensure gates used by horses are at least 1.22m (4ft) wide.

### **Indoor Space Allowance**

An appropriate space allowance, in  $m^2$ , is 2 to 2.5 times the height of the horse (at the withers) squared. This space allowance allows for the normal movements of the horse, including lying down.

Sample calculation based on the above formula for a horse that measures 15 hands at the withers: (Step 1)  $15 \times 4in = 60in$ , which converts to approx. 1.5m; (Step 2)  $1.5m \times 2 = 3m$ ; (Step 3)  $3 \times 3 = 9m^2$ .

#### **RECOMMENDED BEST PRACTICES**

For indoor facilities: each horse must have enough space to lie down in a normal resting posture, stand with the head fully raised, walk forward and turn around with ease. For tie stalls, each horse must have enough space to lie down in a normal resting posture, stand with the head fully raised and step forward in comfort.

For group housing, there must also be sufficient space for subordinate horses to escape aggression.

1. ensure ceiling or support beam height allows a minimum clearance space of 61cm (2ft) above horse head height when standing (ideally, the clearance space should exceed 1m [3.3ft]). Ceiling height is important for horse comfort, safety and ventilation.
2. ensure alleyways in indoor systems are wide enough to allow a horse to turn around comfortably (3m [9.8ft] is a suggested minimum width)
3. ensure doorways used by horses are wide enough to allow easy passage (e.g. 1.22m [4ft] wide). Doorways that may need to accommodate two horses at once should be twice this width. The use of doorways built for human passage is not ideal for horses and is discouraged
4. ensure entrances used by horses are at least 30.5cm (1ft) above head height when the horse is in a normal standing posture.

### **Indoor Lighting**

Lighting in indoor facilities should provide uniform illumination and permit effective observation of horses. Lighting is important for normal reproduction, seasonal endocrine rhythms and seasonal adaptation (e.g. hair coat).

#### **RECOMMENDED BEST PRACTICES**

For horses kept indoors without natural light, artificial lighting must be provided during the day. Keeping horses in continuous darkness is not acceptable.

1. ensure light fixtures are safe and not accessible to horses (e.g. avoid the use of exposed light bulbs)

2. provide horses, and especially foals, with a period of darkness (to encourage sleeping).

### **Indoor Flooring**

The ground or flooring in stalls and alleyways should be well-drained and must provide non-slip surfaces to reduce the risk of horses slipping or falling. Examples of non-slip surfaces include sand, dirt (but not mud), rough cut planked floors, rubber mats, and stamped or grooved concrete. For shod horses, the addition of rubber mats or epoxy flooring to concrete helps avoid slipping. Ideally, stall flooring will be reasonably level but designed to move excess moisture away from horses. Soft ground surfaces (e.g. sand, earth) should be routinely maintained by leveling out any holes..

#### **RECOMMENDED BEST PRACTICES**

Provide non-slip surfaces in stalls and alleyways to reduce the risk of horses slipping or falling. Ensure flooring is maintained as dry as possible and free from standing water or urine.

### **Indoor Bedding**

Well-managed bedding provides comfort, warmth, dryness, traction and protection against abrasions. Examples of bedding include straw, shavings, shredded paper and peat moss. Each type of bedding has advantages and disadvantages. Horses prefer to lie down in bedded areas in the stalls; therefore, providing ample clean bedding also helps ensure horses get enough rest, which is important for their well-being and performance.

#### **RECOMMENDED BEST PRACTICES**

Ensure stalls are kept clean. Horses must be provided with a dry lying area. The area must also be of a design or texture that will not bruise, cut or otherwise injure the horse. Concrete or hard rubber mats without bedding are not acceptable surfaces.

Bedding must be non-toxic.

1. ensure stalls have a depth of bedding sufficient to absorb urine and encourage the horses to lie down
2. remove wet and soiled bedding at least once a day. For deep bedded systems, add clean, dry bedding daily
3. provide disposable bedding on top of stall mats to help absorb urine and provide extra cushioning
4. use bedding that is as dust free as possible
5. where possible, remove horses from the building when cleaning stalls and allow airborne particles to settle before letting horses re-enter the stalls.

### **Indoor Air Quality and Humidity**

Respiratory problems can be created or made worse by poor bedding practices and poor indoor air quality. The concentration of ammonia and airborne particles, such as dust and mould, are of particular concern (3). The concentration of fungal spores, the main component of dust in stables, is determined by the rate of release from feed and bedding and the rate of clearance, mainly by ventilation. Keeping facilities and bedding clean helps maintain good indoor air quality.

Excessive ammonia concentrations can pose a health threat to humans and animals. The concentration of ammonia should ideally be less than 10ppm and must not exceed 25ppm. When a human observer can detect ammonia (by smell or eye irritation) it is likely to be at a concentration of 20ppm or higher. There are also several tools for measuring ammonia concentration, including litmus paper, detection tubes and electronic devices.

A good ventilation system will remove stale air, maintain ideal ambient temperature, bring in fresh air (without causing drafts, especially at horse level) and remove excess heat and moisture (a factor in mould development). The horses' respiration can be a significant contributor to indoor moisture.

#### **RECOMMENDED BEST PRACTICES**

Air quality in barns must be maintained to prevent the build-up of noxious gases, dust and moisture.

Ventilation must effectively maintain good indoor air quality.

The concentration of ammonia in the air must not exceed 25ppm. Refer to the above information on options for assessing ammonia concentration.

1. strive to maintain good indoor air quality at all times
2. avoid exposing horses to drafts when housed indoors.

## **Safety and Emergencies**

Emergencies can necessitate the need to urgently release horses from a housing facility (e.g. in the case of a barn fire) or urgent evacuation from the farm (e.g. due to a flood or forest fire). In the case of a fire, horses should be secured in a safe location as they may return to a barn that is on fire.

Toxic materials must be securely stored. Serious health consequences can arise if horses gain access to such materials.

### **RECOMMENDED BEST PRACTICES**

Develop an emergency action plan for emergencies that may occur in your area.

Toxic materials must be securely stored such that horses cannot gain access to them.

1. consult a local fire department for specific advice on fire prevention, particularly before renovating or building a new facility
2. ensure your emergency action plan includes evacuation procedures and emergency contacts. Appendix K provides references on how to develop a plan and local fire authorities can perform a site visit to review emergency preparedness.
3. ensure staff are familiar with your emergency action plan
4. have fire extinguishers (Class A,B,C) located at various points in any facility and ensure staff know of their location and proper use
5. do not store combustible materials near where horses are kept
6. check electrical equipment regularly for stray voltage and ensure wiring or electrical panels are not accessible to horses
7. use non-toxic paints or wood preservatives, especially on fences or stall doors
8. maintain a perimeter fence to prevent horses from leaving the property
9. ensure stalls and equipment that restrains horses have quick release mechanisms. A halter and lead rope should be available at each stall front to facilitate the rapid removal of horses
10. build or renovate facilities for the rapid removal of horses (e.g. a door leading to a secure, fenced runway where horses can be released rather than haltering each horse).

## **Feed and Water**

Horses, donkeys and mules require good quality feed. Good overall feed management includes providing feeds that are safe and that meet the nutritional and behavioural needs of horses, donkeys and mules. Good quality forage (hay or pasture) should form the bulk of the diet for equines. Section 4.5-Body Condition Scoring includes other information relevant to feeding equines.

### **Water**

Water is the single most important nutrient in the management of horses. Equines (in particular donkeys and mules) will limit their water intake to the point of dehydration if the quality (palatability) of drinking water is compromised. They may also limit their intake of water from a new source, such as when moved to a new location. It may be advisable to take a supply of water with you on trips.

Generally, the minimum daily amount of water required by horses at maintenance and in a moderate environment (i.e. 5°C-20°C) is 5L (1.32gal) of water for every 100kg (220lbs) of body weight. The amount of water the horse needs will go above this minimum with:

- increased humidity
- increased ambient temperature
- increase in the horse's metabolic activity level (in work, pregnant, lactating)
- the presence of some health conditions (e.g. diarrhea)
- a diet high in salt or potassium.

### **Snow as a Water Source**

There is limited research on snow as a sole water source for horses. Given the scientific research on the water needs of horses in general, snow alone will not meet their water requirements. Some research shows that limiting liquid water intake can lead to reduced feed intake, a particular concern in the winter months given the increased energy needs of horses in cold temperatures. Water requirements may even increase in cold temperatures because water intake increases as feed intake increases.

## RECOMMENDED BEST PRACTICES

Horses must have access to safe, palatable and clean water in quantities to maintain health and vigour.

In extreme weather conditions (cold or hot), special attention must be paid to ensure water availability, access and intake. Water troughs, containers and any automatic watering devices must be cleaned regularly and maintained in working order with no sharp or abrasive edges.

1. construct and locate water troughs and buckets so they are protected from contamination and freezing
2. check automatic watering systems daily to ensure they are dispensing water properly
3. check for stray voltage from the water source (e.g. electric fence ground rods and defective heaters). Horses may refuse to drink if they receive even a slight electric shock when drinking
4. offer tepid water in cold temperatures to encourage intake, especially for geriatric horses (water can be heated up to 20°C to optimize intake in cold temperatures)
5. test water quality at least annually, unless it is from a previously tested water supply safe for human consumption.

## Safety of Feedstuffs

Before feeding hay, ensure it is free from dust, mould, soil, weeds and poisonous plants. Concentrates should be dust-free and not too finely ground. Some feeds that are appropriate for other farm animals are not appropriate for horses (e.g. medicated cattle feeds).

Feed must also be securely stored. This will help prevent contamination of the feed which can impact horse health. When horses gain unrestricted access to concentrates (e.g. pellets, grains such as oats and barley), they are likely to overeat, which can also cause serious health problems.

## RECOMMENDED BEST PRACTICES

Horses must have daily access to forage that is free from visible mould and has minimal dust.

Horses must only receive feedstuffs that are appropriate for the species.

Concentrates must be stored in a secure manner that prevents horses from overeating.

1. ensure the ration has been balanced for nutrient content and that all feed components used in the ration are of good quality and free from spoilage
2. read labels on all feeds
3. clean buckets and troughs regularly
4. store concentrates in sealed, rodent-proof containers
5. remove baling twine and any other debris from the feeding area.

## Feeding Behaviour

Horses are strongly motivated to forage (eating hay, grazing pasture) based on their inherent nature. When given the opportunity, they exhibit approximately the same feeding patterns observed in free-ranging horses: eating an average of 12 hours per day and never voluntarily fasting for more than 3-4 hours.

Horses without available pasture or free-choice forage (e.g. round bales) should be fed at least twice daily. If feeding concentrates, a good practice is to feed forage first. Feeding forage increases the amount of time horses spend eating and results in slower digestion. Allowing large spans of time between meals (and thus with the horse's stomach essentially empty) appears to be linked to gastric ulcers and has sometimes been associated with increased frequency of stereotypic behaviour, such as cribbing.

## RECOMMENDED BEST PRACTICES

1. employ feeding strategies that allow horses to forage (e.g. grazing pasture, eating hay in a dry lot) or that allow horses to mimic their natural feeding behaviour (e.g. slow-feeding hay nets, trickle feeders)
2. maximize the time that horses have access to forage. Depending on dietary needs, this may be achieved by free-choice feeding of forage, feeding forage multiple times per day or using slow-feeding devices
3. allow horses to feed in a head-down position, when possible. This results in natural dental wear and reduces the risk of respiratory conditions. The ground/flooring where horses are fed should be free from contaminants (e.g. sand and manure) or the feed should not be in direct contact with the ground.

## Nutritional Content and Feed Management

The amount of feed horses need is based on the horse's maintenance needs (i.e. to maintain at rest or idle) plus the horse's activity needs (growing, in work, pregnant, lactating). The average mature horse will consume 1.5-2% of its body

weight in feed per day to meet its daily maintenance needs. As forage is important to maintain proper gut function, it is crucial that forage forms the majority of the ration.

The nutrient content of hay can vary. With forages of good nutritional content, little to no supplementation is needed. Donkeys, mules, miniature horses, ponies, and some breeds of horses are particularly prone to obesity. These equines may need special feed management (e.g. provide coarse grass types of hay and/or some straw).

Feeding haylage or silage can be suitable for horses provided these feedstuffs are of excellent quality; are free from toxins and ruminant-specific additives; and the horses are given time to adapt to this type of feed. Horses fed haylage or silage should be vaccinated against botulism poisoning.

Concentrates are fed at different rates based on the increased energy needs not met by the forage. The quantity of concentrates fed should be no more than that necessary to provide the required energy - many horses will not need concentrates to meet their energy needs. Feeding excessive concentrates can contribute to obesity, digestive upset and laminitis.

Minerals and vitamins may be deficient in some diets. It is advisable to consult a nutritionist or veterinarian familiar with the nutrient content of feeds grown in your region.

#### Feed Space

Feed space varies depending on the size, number, and temperament of horses that will feed simultaneously from the same site (4). Generally, competition for feed can be reduced by providing horses in groups with multiple feeding sites (whether buckets or boxes) (4). Hay racks or feed troughs that provide 1m (3.3ft) of feeding space per animal are generally appropriate. An extra feeding point (i.e. one more than the number of horses) can help reduce aggression.

#### RECOMMENDED BEST PRACTICES

Horses must receive a diet that is adequate for maintaining health and vigour.

The daily ration must address the horse's maintenance and activity needs and other factors relevant to individual horses and the environment.

Horses must have access to salt either provided in the ration or free access (a block or loose salt).

1. consult a nutritionist or veterinarian to develop a feed program and balanced ration
2. monitor the weight and body condition score of individual horses on a weekly basis and adjust the feed to maintain an optimum body condition score (refer to Section 4.5-Body Condition Scoring)
3. have feeds, including forage, analyzed to obtain accurate nutrient values
4. provide feed on a regular daily schedule, preferably divided into several meals
5. make any changes to the type or quantity of feed gradually over 7-10 days to avoid gastrointestinal upset
6. feed on the basis of the energy value and weight of the feed (not volume of feed).

#### Thermal Impacts on Dietary Energy Needs

Horses exposed to ambient temperatures below 5°C need more feed (particularly forage) for maintenance. Most horses will increase their feed intake in cold temperatures achieving their increased energy needs; however, some may need to be fed a more energy-dense diet. Horses may voluntarily decrease feed intake as temperatures increase.

#### RECOMMENDED BEST PRACTICES

1. increase the quantity of forage in the diet during cold temperatures
2. supply additional feeds (e.g. concentrates) for horses not maintaining their body condition on forage only during cold temperatures.

#### Horses in Work

Work increases nutrient needs. Dietary energy (the caloric content) is the nutrient most affected by increased work. Other nutrient requirements also increase marginally; however, the increased protein, vitamin and mineral needs are often met with the extra energy source. The addition of more energy-dense feeds (e.g. concentrates) to the ration is usually necessary for horses in work. Added fat can be used to reduce reliance on large amounts of carbohydrates.

#### RECOMMENDED BEST PRACTICES

Horses in work must receive a diet that is adequate for maintaining health and vigour.

1. divide the concentrate ration into at least two meals and avoid feeding more than 0.5-0.6kg (1.1-1.3lbs) of concentrate per 100kg (200lbs) of body weight in any single feeding
2. avoid feeding immediately prior to or after strenuous exercise
3. ensure sufficient salt is provided as horses lose salt in sweat during work

4. ensure any increase in concentrate is done gradually over 7-10 days to prevent digestive upset.

### **Health Management Plans**

The health of horses, donkeys and mules is a key component of their welfare. Horses should be regularly assessed for health and fitness relative to any work or activity they perform. Owners and managers should maintain the health of their animals through appropriate nutrition and housing and disease prevention, detection, and treatment. Veterinarians should be involved in helping meet these animal health obligations. Depending on the circumstances, it may only be possible to seek veterinary advice via phone or other contact.

A Veterinarian-Client-Patient Relationship (VCPR) is the basis for interaction among veterinarians, their clients and their clients' animals. The exact definition for a VCPR varies between provinces, but generally the relationship has been established when the veterinarian has examined the animals or visited the farm (to gain a close knowledge of the health status and management of the animals); the veterinarian has assumed responsibility for making clinical judgments related to the health of the animals; and the client has indicated a willingness to follow the veterinarian's instructions.

### **Infectious Disease and Biosecurity**

Health management plans (which include biosecurity and vaccinations) reduce the risk of introduction or spread of infectious diseases. Biosecurity protocols are guidelines intended to prevent the introduction or spread of diseases within a farm or to other farms. Horses that are newly introduced or returning to the farm present the greatest risk of infectious disease. Biosecurity protocols should be in writing, especially on farms with a large number of horses.

For some diseases, a horse can be a carrier of the disease without showing signs. These carrier animals can play a significant role in disease transmission. Infectious diseases can also be transmitted by people (e.g. via clothing or footwear); other animals (e.g. dogs and wildlife); and objects not adequately cleaned and disinfected (e.g. tack, grooming equipment, halters, water buckets and trailers). Appendix K provides several resources to assist with biosecurity planning.

### **Medications**

Medications, especially prescription medications, should not be administered unless under the advice of a veterinarian. Some medications or remedies may be ineffective or even unsafe. These include: natural and herbal remedies; supplements, medications that are unlabeled, untested or unregulated; and medications used in a way that differs from the originally intended and licensed use (i.e. extra-label). Regulated sources of medication include a veterinarian, pharmacy, veterinary pharmacy, and licensed animal medicines outlet. Before administering any medication or remedy, read the label carefully and discuss its safety and proper use with a veterinarian. It is also important to store medications correctly - this can affect their efficacy and safety.

### **RECOMMENDED BEST PRACTICES**

Horses must be observed as often as required to maintain their health and well-being.

Purchase medications and veterinary pharmaceuticals from regulated, reputable sources. Refer to provincial and federal regulations.

Records or receipts of treatments provided must be available.

1. work with a veterinarian and other experts to develop a written health management plan and review the plan in advance of making major changes to the farm
2. include the following in your health management plan:
  - protocols for biosecurity
  - protocols for the prevention, detection and treatment of disease
  - protocols for pest and insect control
  - vaccination and deworming schedules
  - staff training
  - veterinary contact information for emergencies
3. use veterinary products that are approved by Health Canada and have a valid Drug Identification Number
4. ensure treatment records include a record of the animal(s) treated, date, reason for treatment, dosage, withdrawal time, if applicable, and any adverse reactions
5. schedule regular preventive care veterinary visits to minimize emergencies
6. outline criteria for when to call a veterinarian
7. obtain veterinary advice on appropriate treatment for diseases
8. ensure a competent handler is present during a veterinary visit

9. inspect stabled or group housed horses at least twice a day for health and well-being; observe horses on open range or pasture on a routine basis
10. assess the horse's health and fitness for work/competition on a routine basis. Appendix K provides a resource on assessing fitness for competition
11. segregate new arrivals from resident horses for at least seven days and monitor their health status.

### **Pest and Insect Control**

Controlling pests and flying insects is an important component of an overall health management plan. Pests and insects can transmit diseases and cause discomfort.

#### **RECOMMENDED BEST PRACTICES**

1. implement procedures to monitor and control pests. The ideal program prevents the entry of wildlife and pests where horses are housed and eliminates sites on the farm that provide shelter and food for pests
2. protect horses from excessive insect burden (e.g. stable horses at sunrise and sunset, the peak insect feeding hours; apply repellent products to the horse; use a fly sheet)
3. implement protocols to reduce insect breeding sites (e.g. remove or cover manure piles, mosquito control in water troughs and standing water).

### **Vaccinations**

Vaccinations offer horses protection from some infectious diseases, but do not completely eliminate disease risk. Good overall management directed at infection control remains important even for vaccinated horses. Vaccination guidelines vary by region and should take into account the risk for exposure. While there are costs associated with vaccines, those costs are generally much lower than the costs associated with an infectious disease.

#### **RECOMMENDED BEST PRACTICES**

1. consult a veterinarian to develop a vaccination program, including correct on-farm storage and administration of the vaccines
2. ensure broodmares receive regionally appropriate vaccines
3. ensure foals are properly immunized with primary and booster vaccines as this affects their response to vaccines later in life
4. keep a record of the vaccinations that were administered (i.e. a record identifying the animal(s) vaccinated, date and any adverse reactions)
5. know the vaccination status of new arrivals and ensure they are properly vaccinated.

### **Parasite Management**

While this section focuses on internal parasites, external parasites (e.g. lice and ticks) also affect horses. A veterinarian should be consulted for advice on controlling external parasites.

Control of internal parasites is key to maintaining feed efficiency and horse health. Signs of severe parasitism include poor body condition, rough hair coat (especially in foals), weight loss, mild to moderate abdominal distension ("pot-bellied" appearance), colic, diarrhea and stunted growth. Foals and geriatric horses are particularly susceptible to internal parasites as are horses with lowered immunity.

Research shows that parasite resistance to several dewormers may be related to the traditional approach of deworming all horses every 6-12 weeks with rotating products. A more effective alternative may be targeted treatments based on the worm burden specific to individual horses and farms combined with effective pasture management (3). Fecal examination for parasite eggs is an important component of a parasite control program but results must be interpreted based on a thorough understanding of parasite life cycles. For example, immature (larval) stages of worms can cause disease before egg shedding is detected.

Parasite control programs will vary but may include the following:

- fecal examinations (to identify worm burden and estimate levels of shedding of strongyle eggs of individual horses)
- regular deworming of all horses or targeted treatments of horses known to have a high parasite burden
- fecal egg count reduction tests (to assess the efficacy of individual drugs used)
- good pasture management (e.g. prompt manure removal, composting to kill parasite eggs, pasture rotation).

#### **RECOMMENDED BEST PRACTICES**

A parasite control program to prevent parasite related disease must be in place. This Requirement applies to internal and external parasites.

1. consult a veterinarian to develop a control program for internal parasites. The plan should take into consideration risk factors such as the age of the horse; stocking density; the presence of drug-resistant parasites; seasonal and geographical factors; and additional management practices such as pasture hygiene
2. consult a veterinarian to develop a control program for external parasites
3. ensure records of parasite treatments include a record identifying the animal(s) treated, date, dosage and any adverse reactions.

### **Sick, Injured or Compromised Horses**

The list of topics covered here is not exhaustive but provides information on topics that are particularly relevant to horses. It is essential that those responsible for horse care be able to recognize normal behaviour, signs of sickness or injury and have basic knowledge of first aid for horses. It is important to frequently check horses carefully in order to identify problems that may not be apparent from a distance. These inspections can be done during feeding or other chores.

The most common signs of illness include:

- change in the horse's behaviour (e.g. lethargic, depressed, anxious)
- reduced feed intake
- change in water intake
- change in consistency of manure
- unexplained change in weight (loss or gain)
- signs of pain or discomfort (e.g. reluctance to move, increased rate of respiration and sweating)
- signs of colic
- lameness
- swelling
- discharge from the eyes, ears or nose
- coughing or difficulty breathing
- fever

Compared to horses, donkeys and mules are stoic animals and are less likely to show behavioural signs indicative of illness. In donkeys and mules, a reduced or loss of appetite is a significant concern.

Take action immediately if any horse is injured or appears ill or distressed. If you are in doubt about the horse's health or the most effective treatment, consult a veterinarian without delay.

### **RECOMMENDED BEST PRACTICES**

Equines that are sick, injured or in pain must receive appropriate treatment without delay or be euthanized without delay. For sick, injured or compromised horses that are not showing improvement, horse owners or caregivers must, without delay, obtain veterinary advice on appropriate care and treatment or make arrangements for euthanasia.

Records or receipts for treatments provided must be available.

Appropriate authorities must be advised of suspected or confirmed cases of federally reportable disease, such as Equine Infectious Anemia. Refer to the Canadian Food Inspection Agency

1. learn how to take a horse's vital signs.
2. consult a veterinarian when vital signs are abnormal for an unknown reason or when a horse shows signs of illness
3. post veterinary contact information, including after-hours contact, where staff will easily see the information
4. know in advance the route to the nearest veterinary hospital and have a plan in place for transport
5. keep a first-aid kit on farm and in the transport vehicle. Ensure staff know its location and how to use it
6. consult an experienced horseperson or other expert for advice on safe restraint when treating a horse and provide an appropriate means of restraint when a veterinarian attends the horse
7. have sheltered, segregated and well-bedded sick pens/stalls for horses that are sick, injured or recovering
8. have isolation facilities available on the farm
9. monitor sick, injured and/or recovering horses at least twice daily
10. ensure treatment records include a record of the animal(s) treated, date, reason for treatment, dosage, withdrawal time, if applicable, and any adverse reactions
11. assign responsibility for health management decisions to a competent individual if you will be away from the farm for an extended period.

## **Dental Care**

Most dental conditions are painful and lead to other welfare issues, such as weight loss. Horses should have their teeth examined at least annually and receive appropriate dental care as needed (e.g. teeth floating). Young and old horses, as well as those with dental problems, may need to be examined more frequently. Proper dental care helps horses eat better, perform better and be healthier.

Signs of dental problems include:

- unexplained weight loss
- quidding (dropping feed while chewing)
- reluctant or slow to eat
- unusual tilting of the head while chewing
- unusually high amounts of long fibres in the manure
- resistance to the bit or bridle due to pain
- swelling in the cheeks or the upper or lower jaw
- excessive salivation (drooling or slobbering)
- unpleasant odour from the mouth or nostrils.

### **RECOMMENDED BEST PRACTICES**

Horses showing signs of dental problems must be examined and treated.

Dental care procedures must only be performed by a veterinarian or competent individual working under direct veterinary supervision. Refer to provincial regulations.

1. have a dental examination done at least annually or as frequently as may be needed for individual horses. In particular, broodmares, foals, geriatrics and horses entering training should be examined for dental abnormalities
2. observe horses regularly for signs of dental problems.

## **Lameness**

Lameness is a significant welfare concern. For the purpose of this Code, it is defined as any alteration in the horse's gait that appears to be caused by pain or discomfort. Lameness can manifest as a change in performance or willingness to move, head nodding or hip hiking. Gait can be evaluated from a walk, moving in a straight line and turning in both directions; a trot may be necessary if the lameness is less severe.

Identifying the source of the lameness is essential to proper treatment. Prompt examination and diagnosis improves the welfare of the horse and can save time and money and prevent further damage.

There are various forms of treatment for lameness, including rest, medication, surgical procedures, corrective trimming and shoeing, rehabilitation exercises and pain management. Pin firing is not recommended for treating lameness - the procedure itself causes pain and there is very little scientific evidence that shows that pin firing is beneficial.

### **RECOMMENDED BEST PRACTICES**

Lameness must be addressed either through specific therapies or changes in management or workload.

1. reduce the risk of lameness by:
  - considering the horse's physical condition and soundness when determining the type and amount of work the horse will be asked to do
  - ensuring immature horses are not worked or trained excessively
  - providing horses with adequate rest periods between work sessions
  - ensuring good footing in exercise and turnout areas
  - ensuring regular hoof care
  - allowing low-grade injuries to heal by giving horses appropriate lay-ups (longer rest periods)
2. obtain a veterinary diagnosis of the cause of lameness and veterinary advice on appropriate treatment.

## **Laminitis (Founder)**

Laminitis is a serious condition that causes inflammation in the foot that may result in severe pain, abnormal foot growth and lameness. If untreated or if treatment is unsuccessful, laminitis can lead to permanent structural changes in the foot, gait abnormalities and continual or recurrent bouts of foot pain. The pain from laminitis can become severe enough to necessitate euthanasia on humane grounds.

Known or suspected causes of laminitis include grain overload, obesity, severe infections (such as severe diarrhea), Equine Metabolic Syndrome, “Equine Cushings” (PPID, see glossary) and excessive concussion of the hooves. Diet plays a key role in triggering laminitis, particularly the consumption of pasture or feeds high in simple sugars, starches and fructans.

Signs of acute laminitis include:

- lameness (including a cautious, stilted gait)
- increased heat in the feet and/or a bounding pulse in the feet (felt at the pastern or fetlock)
- shifting weight to the hind end and front feet stretched out
- reluctance to pick up the feet.

#### RECOMMENDED BEST PRACTICES

Horses with laminitis must receive appropriate lifelong management and treatment, which may include medications, dietary management and hoof care.

1. reduce the risk of laminitis through the following strategies:
  - do not let horses get too fat - ensure they are at an ideal body condition score and are not overfed relative to their energy needs (3) (refer to Section 4.5-Body Condition Scoring)
  - ensure any changes to the diet are gradual
  - restrict at-risk horses from grazing on lush pasture (i.e. plentiful, bright green grass) (3)
  - store grains securely such that horses cannot gain access. In the case where a horse gains unrestricted access to grain, call a veterinarian immediately - do not wait for signs of laminitis to appear
2. consult a veterinarian to determine special care that may be needed for a horse that has had laminitis. Horses that have had laminitis are at increased risk of developing the disease again and the condition can become chronic
3. ensure communication between the veterinarian and farrier to determine whether corrective trimming or therapeutic shoeing may be needed.

#### Body Condition Scoring

Body condition scoring (BCS) is a tool for determining if an animal is too thin, too fat or in ideal condition. In order to be done correctly, BCS involves both a physical palpation and visual assessment of specific anatomical sites that are most responsive to a change in body fat.

Appendix D provides the 1-9 scale for body condition scoring horses and ponies. Appendix E provides the 1-5 scale for body condition scoring donkeys and mules. For the purpose of this Code, all body condition scores refer to the scales shown in either Appendix D or E.

Be aware of the following when evaluating BCS:

- as horses increase BCS, they appear thicker and more solid; as donkeys and mules increase BCS, they get lumps of fat under the skin
- Thoroughbred conformation naturally has more prominent withers and back; the conformation of ponies and draft breeds is naturally more fleshy
- the flank and tail head area may be less reliable sites when assessing the BCS of pregnant mares/jennets in late gestation (the weight of the foal makes the flank area appear thinner and hormone changes make the tail head area appear flatter)
- a thick winter coat can make a horse appear to be in better condition than it actually is. Palpation is essential to assess body condition.

Depending on the animal’s purpose, breed and life stage, a BCS of 4 to 6 (out of 9) is recommended for horses, miniature horses and ponies. For mules and donkeys, a BCS of 3 (out of 5) is recommended.

#### Poor Body Condition

Excessively thin equines may be underfed, ill, heavily parasitized or have dental problems. Equines in poor body condition are less able to cope with cold temperatures - they should be given additional shelter and may not even tolerate living outside in the winter.

#### Excessive Body Condition

Obesity in equines is most often caused by allowing animals to overfeed. Horses that are fat (BCS 8) and extremely fat (BCS 9) are prone to overheating during warmer temperatures and experience strain to the legs and feet. Obesity is also a risk factor associated with laminitis (3). Overweight donkeys, ponies and miniature horses are at severe risk of hyperlipemia if starved; therefore, any feed restrictions to reduce BCS must be gradual.

#### BCS and Reproduction

Reproductive efficiency is maximized by maintaining broodmares at a BCS of 5 to 7 throughout breeding, gestation and lactation. Mares that are too thin (BCS<5) at the beginning of the breeding season or at foaling have lower conception and

pregnancy rates. They are also at risk of excessive weight loss at lactation. Increasing the energy fed to thin mares during lactation can improve rebreeding efficiency. An excess store of body fat (BCS 7) at foaling is not associated with foaling problems.

### **Horses in Work**

Inadequate or excessive body condition adversely affects performance of horses doing physical, competitive work. Horses at a BCS>6 doing moderate to hard work may need more time to recover compared to horses at a BCS of 5. A working horse that is too thin (BCS<4) may not have sufficient stored energy reserves for the work period.

### **RECOMMENDED BEST PRACTICES**

For horses and ponies: corrective action must be taken at a BCS of 3 or lower and at a BCS of 8 or higher (on the 1-9 scale). \* Veterinary advice must be obtained if animals do not respond to the corrective action. Refer to Appendix D.

For donkeys and mules: corrective action must be taken at a BCS of 2 or lower and at a BCS of 4 or higher (on the 1-5 scale). Veterinary advice must be obtained if animals do not respond to the corrective action.

Veterinary advice must be obtained for geriatric equines that are emaciated (i.e. BCS of 1 or 2 out of 9 for horses and ponies; BCS of 1 out of 5 for donkeys and mules).

Equines must not be starved or prevented from eating for prolonged periods in order to reduce BCS - the change in feed to reduce BCS must be gradual.

\*With the exception of horses in feedlots that are free from health conditions associated with obesity.

- a) regularly assess BCS
- b) aim for the following ideal BCS ranges for horses:
  - weanlings and foals, 4 to 5
  - broodmares (throughout breeding, gestation, and lactation), 5 to 7
  - stallions (at the beginning of the breeding season), 5 to 7
  - work and performance horses (farm work, racing, endurance), 4 to 6
- c) keep records - identify animals that are outside their ideal BCS range, ascertain the cause, and take corrective action.
- d) To increase BCS to an ideal level:
  - I. seek advice from a nutritionist, knowledgeable, experienced horseperson or veterinarian
  - II. ensure the increase in energy intake does not exceed 10-15% per week
  - III. put the horse on a weight gain program that first involves an increase in forage before concentrates are added
  - IV. provide "poor doers" with forage containing high digestible energy and additional energy in the form of concentrates, including added fat.
- e) To reduce BCS to an ideal level:
  - I. seek advice from a nutritionist, knowledgeable, experienced horseperson or veterinarian
  - II. ensure the decrease in energy intake does not exceed 10-15% per week
  - III. put the horse on a weight loss program that first involves the reduction/elimination of concentrate. A reduction in energy intake should be accomplished without decreasing total daily dry feed intake below 1.5% of ideal body weight
  - IV. provide a more mature hay to an "easy keeper" that is maintained on a hay diet
  - V. increase the horse's activity level. Any such increase should be gradual
  - VI. prevent overeating (e.g. limit pasture access; keep the horse on a dry lot for part of the day; use a grazing muzzle)

### **Husbandry Practices**

#### **Turnout, Exercise and Social Opportunities**

For the purpose of this Code, turnout means allowing horses "free time" (i.e. not under controlled exercise) in a dry lot, arena, pen or pasture. Turnout does not necessarily mean the horse is grazing. Exercise refers to physical activity (indoors or outdoors) and includes, but is not limited to, walking in-hand, riding, lunging and hand grazing. Social opportunities refer to occasions when horses can interact with other horses via sight, sound and/or direct contact.

Horses are highly adaptable to many weather conditions - keeping them outdoors or giving them frequent outdoor access is encouraged. There are several advantages to providing horses with turnout and social opportunities. Research shows that horses with turnout time have greater bone density than those that are strictly stalled (3). Horses with increased turnout and social opportunities have also shown themselves easier to train and handle (3). If given ample social opportunities (either turned out with other horses or group housed), horses learn training tasks more efficiently and perform fewer undesirable behaviours (e.g. biting, kicking, bucking) compared to stalled horses. For a small percentage of

horses, turnout may bring a risk of injury (depending on their temperament and whether they are accustomed to turnout). These horses may need to be transitioned to turnout over a period of time (e.g. transition from a stall to a small paddock and then to pasture).

#### RECOMMENDED BEST PRACTICES

Horses must have some form of exercise or turnout unless under stall rest for medical reasons or severe environmental conditions make this temporarily impossible. Refer to the above explanations for the terms exercise and turnout.

- a) turn horses out with other horses or other equine companions
- b) allow daily exercise or turnout opportunities, ideally outdoors and with foraging opportunities
- c) build or renovate facilities to allow ample social opportunities (e.g. group housing or stall design that allows horses to have visual or tactile contact with other equines)
- d) provide stall-bound horses with continuous access to enrichment devices (e.g. trickle feeders, nibble nets, horse toys).

#### Stereotypies

A stereotypy (formerly referred to as a vice) is an abnormal behaviour that serves no apparent function and is performed in a repetitive, invariant way. Common examples include weaving (side-to-side swaying of the head, neck and forequarters); cribbing/wind-sucking (the horse grasps an object with its teeth and makes a grunting sound); and stall-walking (circular or patterned route-tracing inside the stable). Wood chewing, not usually classified as a stereotypy, involves stripping and apparently ingesting wood surfaces.

Working to prevent stereotypies is generally more effective than trying to “cure” the behaviour once developed. Stereotypic behaviour is most appropriately addressed via management changes that address the underlying cause of the stereotypy. Suggestions include providing ample forage and allowing stalled horses to have visual and tactile contact with other equines. Preventing the horse from performing the stereotypy without addressing its cause may lead to further stress, frustration, and the emergence of other stereotypies. A horse may continue to perform stereotypies even after the predisposing factors have been addressed. This does not necessarily indicate their current welfare status is poor.

#### RECOMMENDED BEST PRACTICES

- a) minimize the risk of stereotypies by ensuring horses have ample turnout time and ample opportunities to forage and engage in social opportunities with other equines (these factors seem to be associated with equine stereotypies)
- b) for horses with stereotypies: strive to address the underlying cause of the stereotypy (rather than physically preventing horses from performing the behaviour).

#### Behaviour and Handling

Handling should be based on the concepts of field of vision, flight zone and point of balance. With proper handling, animals experience less stress and fear, and the risk of injury to the handler and the animals is greatly reduced. Handling should accommodate the animal’s behaviour and should be done in a calm manner.

Horses evolved as prey species and have a strong fight-or-flight response. When frightened, horses will generally flee. If they feel they cannot flee, they may become aggressive. Compared to horses, donkeys and mules are less likely to flee when frightened. Instead, they tend to study the situation before reacting (this is often incorrectly interpreted as stubbornness).

Horse welfare and handler safety is improved when handlers respond promptly to signs of fear and agitation in horses. Some examples include:

- tail swishing/wringing, in the absence of flies
- the whites of the eyes are more visible
- sweating with minimal physical exertion
- flared nostrils or wrinkling at the mouth or nose
- both ears laid flat back
- pawing or striking
- running away from or charging at the handler
- vocalizations (e.g. snorting, squealing, calling)
- head held very high
- kicking or turning the hindquarters towards the handler.

## RECOMMENDED BEST PRACTICES

Handlers must be familiar with equine behaviour and competent in humane handling techniques either through training, experience or mentorship.

Horses must be handled in a manner that does not subject them to avoidable pain or avoidable injury.

- a) understand and apply the concepts of field of vision, flight zone, and point of balance
- b) avoid sudden actions or noises that may startle or frighten horses. Horses have sensitive hearing
- c) provide adequate lighting so that horses do not balk at shadows or poorly lit areas
- d) approach an unfamiliar horse carefully and at the shoulder (not the rear). Generally, horses are accustomed to riders/handlers approaching, mounting and leading on the left side of the horse.

### **Handling and Restraint Equipment**

Equipment used for restraint and handling should be effective without causing stress to the horse and should be designed for maximum safety of the handler and horse. Any restraint method used to assist normal management or treatment of the horse should be the most mild and effective method available, and should be applied for the minimum amount of time necessary to carry out the task.

A halter and lead rope is the most common form of restraint. Generally, the safest knots are those that can be quickly untied even if the horse has pulled on it. When used by knowledgeable handlers, other acceptable forms of restraint include hobbles, twitches, lead chains, stocks and chutes.

Tethering is a form of restraint that brings a high risk of injury to horses unless used correctly. For the purpose of this Code, tethering means attaching a long rope or chain to the halter or leg hobble so the horse can graze. Tethering does not refer to tie stalls or briefly tying a horse to a fixed object.

Refer to Appendix K for other resources on handling and restraint equipment.

## RECOMMENDED BEST PRACTICES

Corrective action must be taken if restraint devices or equipment cause injury to horses.

Tethering must not cause injury and must only be used if the horse is under supervision. The person applying the tether must be knowledgeable in its use. Refer to the above explanation of tethers.

Electric cattle prods must not be used for the routine movement or handling of horses on-farm or during loading/unloading. Discretion must be used in an individual extreme situation when animal or human safety is at immediate risk, but prods must never be used repeatedly or used on the face, anus or reproductive organs of horses.

- a) use properly designed and maintained restraint devices in the manner they were intended to be used
- b) do not turn horses loose in a pasture or stall with a halter on unless the halter has a break-away design
- c) ensure handling equipment is engineered to minimize noise. Loud noises are disturbing to horses
- d) ensure chutes used to restrain horses have break-out walls to assist horses that go down during handling.

### **Hoof Care**

“No foot no horse” - regular hoof care is essential towards achieving overall horse health and longevity through hoof and leg soundness. All equines, including donkeys and mules, need regular hoof care but not all equines will need shoeing. Shoes are necessary when wear exceeds growth, or for correction of conformation or gait. Horse boots are a potential alternative to shoeing. Trimming to correct leg and hoof deviations is most effective when done as early as possible in the foal’s life. All hoof and leg deviations worsen with neglect and excess growth.

Cleaning the foot is important, particularly to prevent thrush and to inspect the foot for any foreign materials that may cause injury. Thrush is an infection caused by bacterial and fungal yeast-type organisms. Signs of thrush include a foul odour and a black putty-like appearance of the frog (the frog is located at the heel of the foot and forms a “V” into the centre). Regular cleaning of the hoof prevents thrush from developing by aerating the exposed area.

Strategies to maintain the hoof health of horses:

- keep hooves free of defects through regular trimming and/or shoeing
- keep corrals clean, dry and free from mud
- provide adequate nutrition and exercise
- clean out hooves regularly, ideally on a daily basis, and before exercise or riding
- avoid extended use of hoof polishes
- use hoof moisturizers or hoof hardeners as needed.

## RECOMMENDED BEST PRACTICES

Hooves must be trimmed and/or shod as often as is necessary to maintain hooves in functional condition. Whether shod or unshod, hooves must not be allowed to grow to excessive lengths causing injury or discomfort to the horse.

- a) ensure the farrier or other personnel is skilled and uses recognized techniques (exercise due diligence researching the qualifications/experience of farriers, ask for references and continuing education practices)
- b) train horses to stand for trimming and shoeing
- c) provide the farrier with a clean, safe and well-lit area (26)
- d) ensure the first hoof examination for foals takes place within the first month of life and regularly monitor the foal's feet for deviations
- e) ensure proper trimming or shoeing (which includes trimming and resetting) is done every 5-8 weeks or as may be needed for individual equines (depending on factors such as age, activity level, nutrition and breed) (3)
- f) clean out hooves before riding
- g) consult a farrier or veterinarian for advice on how to control thrush.

### **Grooming**

Grooming is a good opportunity to form and maintain the bond between horse and handler, and can be calming to horses. It is also a good opportunity to inspect horses for injuries. Grooming loosens dirt and mud, which can cause skin irritation and infections. If allowed to accumulate, dirt and mud can reduce the insulating effect of the hair coat in cold environments. Debris (e.g. mud, burdocks) on the horse where the saddle and harness are placed or on the tack itself can cause injury and discomfort.

#### **RECOMMENDED BEST PRACTICES**

Horses must be free of debris where the saddle and harness are placed. The tack must also be free from debris before being placed on the horse.

Burdocks causing discomfort or injury must be removed without delay.

### **Change or End of Career**

Horses, donkeys and mules can have multiple careers in their working lives. Responsible ownership includes making decisions for equines that are no longer able to carry out the work desired of them as a result of age, injury or illness.

#### **Change or End of Career Options**

Options include:

- retire completely
- transition to a lower performance level or easier job on the farm
- use as a companion to another horse, donkey or mule
- sell to a new owner or consign to a quality or specialized horse sale
- donate to a reputable facility, such as a university
- arrange for euthanasia
- arrange for humane slaughter.

Select an option based on the horse's physical condition, soundness, temperament, demeanor, socialization (with both humans and horses), and tractability. Euthanasia or humane slaughter are legitimate considerations and may be the desired or required course of action depending on the condition of the horse and availability of other options. Before choosing humane slaughter as an option, the rigours of transport to a slaughter facility must be considered. Appropriate withdrawal periods for medications must also be observed.

Sale by private treaty enables the seller to learn more about the buyer, their facilities and intended use for the horse. Sellers may wish to restrict the activity the horse is transitioned into, particularly when the horse is deemed unfit for certain work or athletic expectation.

The welfare of the horse must be of paramount importance when making change or end of career decisions.

#### **RECOMMENDED BEST PRACTICES**

- a) get a specific diagnosis of the horse's condition - this is the best way to identify acceptable uses for the horse and future care needs
- b) ensure the horse is transitioned to a responsible caregiver (e.g. perform a site visit, request references).

## **Euthanasia**

Owners and managers are responsible for euthanasia decisions, and these decisions should never be made without careful consideration. Horses, donkeys and mules serve their owners in many ways and deserve an end of life that is humane. Euthanasia can be performed on farm or at an appropriate off-farm facility.

When caring for a sick or injured horse, consult a veterinarian to determine when to stop treatment and instead euthanize, taking the following into account:

- what is the likelihood of recovery or return to an acceptable quality of life?
- how long should the animal be given to recover?
- has the horse become depressed or lethargic?
- what kind of special care will the animal require and are you able to meet those needs in terms of your skill level, time, and available facilities?
- do you have the financial resources to continue to provide for the animal?
- have the chances of recovery improved or declined over the course of treatment?

### **RECOMMENDED BEST PRACTICES**

- a) work with a veterinarian to develop a plan for euthanasia. The written plan should be kept in a known location and include:
  - the name, and, if applicable, contact information of the person(s) responsible for making euthanasia decisions on farm and the person responsible for performing the procedure
  - a schedule for proper maintenance of any equipment
  - the protocols for disposal, in accordance with provincial and/or municipal regulations
- b) discuss euthanasia with a veterinarian when the horse:
  - is enduring continuous or unmanageable pain from a condition that is chronic and incurable
  - has a medical condition that has a grave prognosis without surgery, and surgery is unavailable or unaffordable
  - possesses dangerous behavioural traits that renders it a hazard to itself, other horses or handlers
  - is suffering from a severe, traumatic injury (e.g. broken leg or wound significantly impacting a major organ, muscle or skeletal system)
  - has a disease or condition and the cost of treatment is prohibitive
  - has a transmittable disease, which is a serious health hazard to other horses or humansOr when you
  - are unable to care for the horse and cannot find it a suitable new home.

## **Timelines for Euthanasia**

A key component of euthanasia is timeliness. It is not acceptable to delay euthanasia for reasons of convenience or cost. When euthanasia is deemed necessary, it must be performed without delay, particularly in the case of a severe, traumatic injury. Leaving a suffering animal to die of natural causes (what is known as “letting nature take its course”) is not acceptable.

### **RECOMMENDED BEST PRACTICES**

Equines that are sick, injured, or in pain must receive appropriate treatment without delay or be euthanized without delay.

For sick, injured or compromised horses that are not showing improvement, horse owners or caregivers must, without delay, obtain veterinary advice on appropriate care and treatment or make arrangements for euthanasia.

## **Methods**

The euthanasia method used must be quick, cause minimal pain and distress, and render the horse immediately unconscious. The following are the only acceptable methods for euthanasia of equines:

- lethal injection administered by a veterinarian
- free bullet deployed by a skilled individual
- penetrating captive bolt deployed by a skilled individual

### **RECOMMENDED BEST PRACTICES**

An acceptable method of euthanasia must be used.

Euthanasia must be performed by persons knowledgeable in the method used for equines.

Disposal must be in accordance with provincial and municipal regulations.

- a) when choosing a method of euthanasia consider
  - the medical condition of the horse being euthanized
  - ability to restrain the animal
  - human safety and the safety of other animals
  - disposal options
  - potential need for sample collection for diagnostic testing
  - the emotional comfort with the procedure for the owner, the person performing euthanasia and any bystanders
- b) consider disposal options well in advance as they may impact on the method and location for euthanasia. Refer to the relevant provincial and/or municipal regulations.

### **Confirmation of Death**

In order to achieve a humane death, the horse must be rendered immediately unconscious and must go on to die without regaining consciousness. Death does not occur immediately-it may take several minutes.

Reflex motor activity or muscle spasms may follow the loss of consciousness and should not be mistaken as an indication of pain or distress. Following the use of the captive bolt or gunshot, the initial involuntary movements should not begin immediately, but approximately 5-20 seconds later. If lethal injection is used, there may be variable amounts of movement associated with deepening anesthesia.

There are several reasons why a secondary step may be needed. In some cases, the euthanasia tool may only be capable of temporarily stunning the animal; therefore, a secondary step is required to euthanize the animal. A secondary step is always required if the first step fails.

An animal has not been rendered unconscious if the animal:

- vocalizes
- attempts to rise
- lifts its head
- blinks like an alive animal
- responds to a painful stimulus.

Use multiple indicators to confirm death:

- absence of all movement for at least five minutes
- absence of a heartbeat and pulse for at least five minutes
- lack of breathing for at least five minutes
- fixed, dilated pupil
- absence of all reflexes including the corneal reflex (i.e. no blinking when the eyeball is touched).

### **RECOMMENDED BEST PRACTICES**

Confirm unconsciousness immediately when it is safe to do so.

Have a secondary euthanasia step or method available.

Confirm death before moving or leaving the animal.