

## DRAFT CHAPTER 7.X

**WELFARE OF WORKING EQUIDS**

## Article 7.X.1.

**Introduction**

In many countries, working equids, used for transport and traction, contribute directly and indirectly to households' livelihoods and benefit communities as a whole. Working equids may be of direct or indirect use in production and commercial activities.

Specifically, they contribute to agricultural production and food security by transporting, for instance, water and fodder for other livestock, firewood and other daily needs to the homestead, agricultural products to the market. They provide draught power for agricultural work and transport. They may supply manure, *milk*, *meat* and hides for household use or income (FAO, 2014).

The welfare of these working equids is often poor because their owners lack resource to meet their needs - or have insufficient knowledge of the appropriate care of equids. Certain working contexts such as working in construction industries or in harsh environments, may present a particular risk to their welfare.

## Article 7.X.2.

**Scope**

This chapter applies to horses, donkeys and mules that are destined, used for or retired from traction, transport and generation of income. Equids used in sports or competitions, leisure activities, production of biopharmaceuticals or research are excluded.

For the purposes of this chapter, harness means all parts of the driving harness, saddle, bridle and bit that are used to control the working equid, act as a braking system when pulling a cart, hold loads in place and transfer power to attached carts or agricultural implements.

## Article 7.X.3.

**Responsibilities**

All organisations with defined responsibilities as outlined below should have personnel with the requisite knowledge and skill to perform their duties.

1. Veterinary Authority

The *Veterinary Authority* is responsible for implementation of animal health and welfare legislations, policies and programmes. However, in the case of working equids, the responsibility may be shared with other government agencies, institutions and relevant stakeholders.

2. Other government agencies

The responsibilities of other government agencies will depend on the range of working equid uses and contexts.

For example those agencies responsible for regulating industrial and construction activities, whether for environmental or labour compliance, may also have a responsibility for the working equids involved in the industry.

Particularly in urban areas, the transport or other responsible agency may have legislative authority in dealing with traffic circulation and have a role to play in ensuring a safe environment for working equids as well as other road users.

Environmental protection agencies may regulate and enforce measures to prevent working equids from accessing sources of contamination.

The agency responsible for public health may have legislative authority in dealing with *zoonoses*.

Education authorities have a responsibility in schools and agricultural, *veterinary para-professional* and veterinary training institutions. Appropriate education and training will prevent many welfare problems.

3. Local government authorities

Local government authorities are responsible for many services and programmes that relate to health, safety and public good within their jurisdiction. In many countries the legislative framework gives authority to local government agencies with regard to aspects of transport, agriculture, public health, environmental health and inspection, and compliance activities including those in relation to animal health measures and responsibility for abandoned and stray animals.

In many countries local government agencies are responsible for the development and enforcement of legislation relating to equine drawn carts and carried loads in traffic, *animal identification* (registration), licensing and disposal of dead animals.

#### 4. Private veterinarians

Private *veterinarians* are responsible for providing services and advice to working equid owners or handlers and play an important role in *disease surveillance* because they may be the first to see an equid suffering from a *notifiable disease*. They may also play a role (often in liaison with the police or other local authorities) in dealing with cases of neglect that can lead to welfare problems.

Two-way communication between the private *veterinarians* and *Veterinary Authority*, often via the medium of a veterinary professional organisation, is important and the *Veterinary Authority* is responsible for setting up appropriate mechanisms for this interaction.

Private *veterinarians* may also have a responsibility in supervising and coordination of *veterinary paraprofessionals* involved in delivering animal health services.

#### 5. Non-governmental organisations

Relevant non-governmental organisations (NGOs) and intergovernmental organisations should understand the role of working equids and may help to collect and provide information to support policy formulation, to advocate for and promote health and welfare of working equids.

Local NGOs are potential partners of the *Veterinary Services* in the development and implementation of working equid health and welfare programmes.

NGOs may also contribute, together with *veterinarians* and *Competent Authorities*, in educating the public in the importance of *animal welfare* of working equids.

#### 6. Working equid owners and users

Owners and users are ultimately responsible for the welfare of their working equids by ensuring their animals' "five freedoms" (Article 7.1.2).

Article 7.X.4.

### **Criteria or measurables for the welfare of working equids**

The following outcome-based measurables can be useful indicators of *animal welfare*. The use of these indicators and the appropriate thresholds should be adapted to the different situations where working equids are used.

#### 1. Behaviour

Presence or absence of certain equine behaviours could indicate an *animal welfare* problem, including fear, depression or pain. Behaviours differ between horses, donkeys and mules and a good understanding of normal behaviour of each species is required.

Some behaviours may not be uniquely indicative of one type of problem; they may be exhibited for a variety of causes.

Depression, apathy, dullness and lethargy in equids that are normally active and alert can be indicative of a welfare problem.

Changes in eating or drinking patterns may indicate a welfare problem, especially a decreased feed intake. This might also be an indicator of dental problems, poor feed quality or even feed contamination.

Behaviours indicating discomfort or pain:

- Head pressing, teeth grinding, grunting, food dropping, and inability to eat normally. Such behaviours may indicate disease or pain.
- Depression, circling, foot pawing, flank watching, inability to stand up, rolling. Such behaviour may indicate abdominal or other discomfort.
- Disturbance of ground or bedding. Such behaviours may indicate disease, abdominal pain, malnutrition.
- Weight shifting, foot pawing, reluctance to move or abnormal movement. Such behaviours may indicate leg, foot, spinal or abdominal pain.
- Head shaking or avoidance of head contact. Such behaviours may indicate head, ear or ocular discomfort.
- Itching, rubbing, self-inflicted abrasions. Such behaviours may indicate skin problems, or parasites.
- Restlessness, agitation and anxiety, rigid stance and reluctance to move, lowered head carriage, fixed stare and dilated nostrils, clenched jaw, aggression and reluctance to be handled, may indicate non-specific pain in horses. In donkeys, these behaviours are more subtle and may not be recognised;
- Vocalisation, rolling, kicking at abdomen, flank watching and stretching may indicate abdominal pain in horses. In donkeys, dullness and depression;
- Weight-shifting, limb guarding, abnormal weight distribution, pointing, hanging and rotating limbs, abnormal movement and reluctance to move may indicate limb and foot pain in horses. These signs are more subtle in donkeys, although repeated episodes of lying down are reportedly more indicative;
- Headshaking, abnormal bit behaviour, altered eating, anorexia and quidding may indicate head and dental pain .

Behaviours indicating fear or anxiety:

- Unusual avoidance of humans, especially when handlers or objects associated with their handling come close;
- A reluctance by the working equids to engage in their use for traction or transport or even a cessation and aggressive behaviour, especially when fitting equipment or loading is undertaken.

Behaviours indicating stress:

- Oral stereotypies: crib biting, aerophagia (“wind sucking”);
- Locomotive stereotypies: stable walking, weaving.

## 2. Morbidity

Morbidity, including incidence of *disease*, lameness, injuries or post-procedural complications, may be a direct or indirect indicator of the *animal welfare* status.

Understanding the aetiology of the *disease* or syndrome is important for detecting potential *animal welfare* problems. Scoring systems, such as those used to score lameness and body condition, can provide additional information.

## 3. Mortality

Mortality, like morbidity, may be a direct or indirect indicator of the *animal welfare* status. Depending on the context, causes of mortality should be investigated as well as temporal and spatial patterns of mortality and possible relationship with husbandry and handling practices. Necropsy is useful in establishing the cause of *death*.

## 4. Body condition and physical appearance

Poor or changing body condition or physical appearance may be an indicator of compromised animal welfare and health and scoring systems help to provide objectivity

Observation of physical appearance often provides an indication of animal welfare and health. Attributes of physical appearance that may indicate compromised welfare include:

- feet or limb abnormalities,
- wounds or injuries,
- dehydration or signs of heat stress,
- abnormal discharges,
- presence of parasites,
- abnormal coat or hair loss,
- excessive soiling with faeces, mud or dirt,
- emaciation.

## 5. Handling responses

Poor human-animal interactions can lead to or be caused by improper handling. This may include bad driving and inappropriate restraint methods or the misuse of whips and sticks, and can result in fear and distress.

Indicators include:

- aversive or apathetic responses to fitting of equipment and loads,
- defensive responses from the equid to the owner or user such as threatening facial expressions, kicking, biting and avoiding human contact.

## 6. Complications due to management practices

Some management practices, such as castration and hoof care, are commonly performed in working equids to facilitate handling, and improve human safety and *animal welfare*.

Working equids are shod for two main reasons; to prevent hoof wear and to improve performance. Many equids cope well without shoes and, if they are coping well, are best unshod. However, poor hoof care and farriery predispose the working equid to injury and infection, and can result in changes to the size, shape and function of the hoof. Untreated abnormalities of the foot can create long-term problems in other parts of the leg and body due to change in gait and weight bearing.

If management practices such as these are not performed properly, *animal welfare* may be compromised.

Indicators of such problems include:

- post-procedure *infection* and swelling;
- post-procedure lameness;
- myiasis;
- behaviour indicating pain or fear;
- mortality.

It is important to note that some practices are not based on evidence and are inherently bad for welfare. Evidence of firing, nasal slitting, lampas cutting and harmful substances applied to wounds should be identified as indicators of poor welfare.

## 7. Lameness

Traditionally, lameness has been defined as any alteration of the horse's gait. In addition, lameness can be manifest in such ways as a change in attitude or performance. These abnormalities can be caused by pain in the neck, withers, shoulders, back, loin, hips, legs or feet. Identifying the source of the problem is essential for proper treatment (AAEP, 2014). Lameness or gait abnormalities are the most common signs of working equids seen by *veterinarians*. Various scoring systems are available to assess the degree of lameness.

Indicators of such problems include:

- hoof conformation abnormalities;
- unequal weight bearing;
- hoof and pastern axis and angles.

## 8. Fitness to work

Fitness to work is the state or condition of being physically sound and healthy, especially as a result of exercise and proper nutrition, to perform work well (Saunders Comprehensive Veterinary Dictionary, 3 ed. Elsevier). Various factors such as the animal's age, breed or physiological state (e.g. pregnancy) may influence its fitness to work.

Indicators of an equid's inability to carry out the work demanded of it include the presence of heat stress, lameness, poor body condition or weight loss, harness related wounds and aversive behavioural responses to, for example, harness or equipment fitting.

Article 7.X.5.

### Recommendations

Articles 7.X.7. to 7.X.14. provide recommendations for measures applied to working equids.

Each recommendation includes a list of relevant outcome-based measurables derived from Article 7.X.4. This does not exclude other measures being used when appropriate.

Article 7.X.6.

## Feeding and provision of water

### 1. Feeding

Equids are natural grazers that eat small amounts often. Their natural diet is mainly grasses, which have a high roughage content. Horses in particular should be fed frequently with a predominantly fibre-based diet: either grass, hay or a suitable and safe alternative in order to mimic their natural feeding pattern as closely as possible.

Energy, fibre, protein, mineral (including trace minerals) and vitamin contents in the diet of working equids, their balance, safety, digestibility and availability are major factors determining the power of the animals, their growth and overall productivity and their health and welfare (FAO, 2014; Pearson, 2005).

Working equids should be provided with access to an appropriate quantity of balanced and safe feed, of adequate quality to meet their specific physiological and working needs. In case of feed shortages, the *animal handler* should ensure that the period of reduced feeding is as short as possible and that mitigation strategies are implemented if welfare and health are at risk of being compromised (NRC, 2007).

If supplementary feed is not available, steps should be taken to avoid starvation, including *slaughter*, sale or relocation of the animals, or humane *killing*.

Owners and handlers should allow working equids to forage whenever possible and allow for an adequate number of working breaks to allow the animals to eat (Heleski *et al.*, 2010). Cut green forage should be provided when grazing is not possible. Long fibre forage is important and should be provided when adequate green forage is not available.

Inadequate diets and feeding systems may contribute to *diseases*, stress, discomfort or to abnormal behaviour in working equids and should be avoided. *Animal handlers* should be aware of the animals' nutritional needs and consult an expert for advice on ration formulation and feeding programmes when needed.

### 2. Provision of water

The most important nutrient for the welfare of working equids is water (Heleski *et al.*, 2010). Working equids need regular and adequate access to palatable, safe water that meets their physiological, and work, requirements which may vary.

Outcome-based measurables: behaviour, morbidity, mortality, body condition and physical appearance, and fitness to work.  
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## Article 7.X.7.

**Shelter**

Effective shelter should be provided for working equids both in the resting and working environments. Shelter should provide protection against adverse weather conditions and against predators and injury as well as good ventilation and the ability to rest comfortably. Resting space should be dry, clean and large enough for the equid to lie down, get up and turn around easily.

1. Heat stress

Heat stress is a common condition in working equids in hot, humid environments and *animal handlers* should be aware of the risk that heat stress poses. Equid owners and handlers should be aware of how to prevent it through provision of appropriate shade or shelter along with sufficient drinking water and avoiding work at extreme high temperatures. Owners may also be trained in effective treatment of hyperthermia as timely veterinary assistance may not be available.

Behaviours which indicate heat stress include increased respiratory rate and effort; flared nostrils; increased head movement and lack of response to the environment .

Outcome-based measurables: behaviour, morbidity, mortality, body condition and physical appearance and fitness to work.

2. Cold

Protection from extreme cold weather conditions should be provided when these are likely to create a serious risk to the welfare of equids, particularly of neonates and young animals and others that are physiologically compromised. Such a protection could be provided by extra bedding, blankets or shelter. Care should be taken that, in an attempt to protect against the cold, ventilation and air quality are not compromised.

Behaviour which indicates suffering from cold stress includes shivering and huddling together.

Outcome-based measurables: behaviour, mortality, and body condition and physical appearance.

3. Protection from predators and injury

Working equids should be kept safe from predators and from road accidents, which are common occurrences if equids are left free to roam. If working equids are housed alongside horned cattle, care should be taken to protect them from injury (The Brooke WEVM, 2013). Enclosures used should be structurally sound and free of sharp edges, protrusions and other features that could cause injury.

Outcome based measurables: behaviour ,morbidity, mortality, body condition and physical appearance and lameness.

## Article 7.X.8.

**Management and injuries**1. Biosecurity

*Biosecurity plans* should be designed commensurate with the desired health status of the equid population or *herd* and current disease risk. These *biosecurity plans* should be promoted with stakeholders for effective implementation and should address the control of the major sources and pathways for spread of pathogens by:

- a) equids,
- b) other *animals* and *vectors*,
- c) people,
- d) equipment
- e) *vehicles*,
- f) air,
- g) water supply,
- h) feed.

Outcome-based measurables: morbidity, mortality, changes in body condition and physical appearance.

2. Animal health management

Effective national programmes for the prevention and treatment of working equid *diseases* and conditions require clear roles and responsibilities to be defined for official and private animal health service personnel as well as for owners.

Owners and handlers of working equids should be aware of signs of ill-health, *disease*, distress and injuries. If they suspect the presence of disease and are not able to manage it, they should seek advice from *veterinarians* or other qualified persons.

Non-ambulatory working equids should have access to feed and water at all times. They should not be transported or moved unless absolutely necessary for treatment or diagnosis. Such movements should be done carefully using methods that avoid dragging or excessive lifting.

When treatment is attempted, equids that are unable to stand unaided and refuse to eat or drink should be euthanised in accordance with Chapter 7.6., as soon as recovery is deemed unlikely.

Outcome-based measurables: morbidity, mortality, behaviour, body condition and physical appearance.

#### Article 7.X.9.

##### **Handling and management practice**

Management practices should be accomplished expertly and with the proper equipment and pain relief if appropriate. Painful husbandry procedures should be performed under the recommendation or supervision of a *veterinarian*.

Drivers and handlers should be trained to acquire good management skills.

Poor management practices include bad handling, inappropriate restraint such as too tight tethering or hobbling, the working of animals that are unfit or immature, poor housing that does not protect the equids from adverse weather conditions, inadequate handling equipment, excessive number of working hours, underfeeding, lack of access to water, lack of resting periods, working under heat stress, overloading, beating or whipping and some traditional practices.

*Competent Authorities* and *veterinarians* should educate owners and handlers of working equids to cease unsafe, ineffective and inhumane practices and also encourage good management and handling skills.

Working equids should not be kept confined indoors for long periods.

Working equids should not be tethered or hobbled continuously. In situations where temporary hobbling is necessary, the *animal handlers* should ensure sufficient distance between the two hobbled legs to allow the equid to stand naturally and move without risk of injury.

When temporary tethering is necessary working equids should be able to lie down, and if tethered outdoors, turn around and walk. The tethering site should be free from obstructions that may entangle the tether. Adequate water, feed and supervision should be provided; if necessary, action should be taken by moving the animals to areas providing shade or shelter.

Mares in season should not be tethered near stallions; mares about to foal or with a foal should not be tethered.

Equipment used to hobble should be designed for that purpose. The parts of the hobbles which are in contact with the skin should not be made from material that causes pain or injury (Burn *et al.*, 2008).

Owners and users of working equids should be discouraged from using whips and harmful goads such as sticks. Instead humane training practices for equids should be promoted which focus on developing good driving practices.

Outcome based measurables: behaviour, morbidity, mortality, body condition and physical appearance, lameness and fitness to work.

#### Article 7.X.10.

##### **Behaviour**

*Animal handlers* should be familiar with normal and abnormal behaviour of each type of working equid in order to interpret the welfare implications of what is being observed.

Good human-animal interaction should be positive in order not to compromise the welfare of the working equid.

Different natural behaviours and social interactions between horses, mules and donkeys should be taken into account.

Outcome-based measurables: behaviours, body condition and physical appearance, and fitness to work.

#### Article 7.X.11.

##### **End of working life**

Consideration should be given to end of life issues.

Abandonment of equids should be discouraged. The *Competent Authorities* should develop and implement guidance or legislation to prevent abandonment while taking steps to make provision for abandoned animals to ensure their welfare.

When working equids need to be *slaughtered* or *killed*, recommendations in Chapters 7.5 and 7.6. should be followed to avoid the equid suffer a prolonged and painful *death* by abandonment, neglect or disease or acute, painful death such as being eaten by *wild animals*, or hit by a road vehicle.

#### Article 7.X.12.

### Appropriate workloads

Equids continue to develop until over the age of five years so consideration should be given, according to workload, as to when working life commences. In general this should be three years of age or more but never less than two years of age. Animals that are subjected to excessive work too young in life will usually suffer from leg and back injuries in later life, resulting in a much-reduced working life.

Mares should not be ridden or worked three months before and after foaling.

Special considerations should be given to old animals.

Animals should work a maximum of six hours per day and should be given at least one, preferably two, full day's rest in every seven-day period. Consideration should be given to the animal's physical condition and age and the work load should be adjusted accordingly.

Consideration should be given to the weather conditions (work should be reduced in very hot weather). Breaks should be given at least every two hours and drinkable water should be provided.

All animals should receive sufficient good quality feed corresponding to their individual requirements. Fresh drinkable water and roughage should be available to aid digestion.

Sick or injured animals should not be worked. Any animal that has been under veterinary treatment should not be returned to work until advised by the *veterinarian*.

**Outcome based measurables:** behaviour, body condition and physical appearance, handling response, lameness and fitness to work.

#### Article 7.X.13.

### Farricry and harnessing

#### 1. Farricry

Owners and handlers should routinely clean and check the hooves of the working equid before and after work.

Hoof trimming and shoeing of working equids should only be performed by persons with the necessary knowledge and skills.

Outcome based measurables: Behaviour, body condition and physical appearance, lameness and fitness to work.

#### 2. Harnessing

A properly designed, well-fitted and comfortable harness allows the working equid to pull the equipment to the best of its ability, efficiently and without risk of pain or injuries.

Harness injury should be prevented by using properly fitted and adjusted harness which is checked daily for damage and repaired promptly as necessary. Equids should be checked after work for signs of rubbing and hair loss and the source of any problems should be removed through maintenance and padding where required.

Harness: should not have sharp edges which could cause injury, should fit well so that it does not cause wounds or chafing caused by excess movement; should be smoothly shaped or padded so that loads imposed on the working equids' bodies are spread over a large area; and should not impede the animal's movement or normal breathing or restrict blood supply.

Carts should be maintained to ensure accurate balancing and appropriate tyre pressure. For draught equids the use of swingletrees is recommended so as to balance the pull and thus as a result reduce the risk of sores from the harness.

Owners should ensure that effective harnessing and good riding and driving practices.

Bits should be of a simple type (such as a straight bar snaffle), depending on work, but should always be smooth, appropriately sized for the equid and kept clean. Inappropriate materials such as thin cord or wire should never be used as bits or to repair bits.

Outcome based measurables: Behaviour, body condition and physical appearance, lameness and fitness to work.