

Review On Welfare Of Working Equines In Ethiopia

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ABSTRACT: Using animals for our purposes we exercise varying degrees of control over the quality and duration of their lives. That control gives us the opportunity to manage them humanely. Moreover, using them for our own purposes, not theirs, requires us to do so. Accordingly, we have an ethical ‘duty of care’ towards the animals in our control and this translates into a practical obligation to keep their welfare at acceptable levels. To do this we need an understanding of what animal welfare is. Moreover, when assessing the welfare status of animals in practical contexts different emphasis has been placed on different aspects of current definitions. The biological function view holds that, in general, welfare is good when the animals are healthy, growing and reproducing well. For farm animals in particular, when good meat, milk, egg and fiber productivity of individuals is broadly aligned with good health and reproductive performance. I suggest that an animal is in a poor state of welfare only when physiological systems are disturbed to the point that survival or reproduction are impaired.

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1. Introduction

Equines are widely distributed throughout the world. In developed countries, small numbers are kept as pets, as companions, or for work, in occupational therapy program (Alujia and Lopez 1991). There are an estimated 90 million equines in the developing world, with highest population concentration in Central Asia and North and East Africa (FAO 2003). Over 95% of all donkeys and mules and 60% of all horses are found in developing countries (Fielding 1991), where they are kept mainly for work.

Ethiopia has the largest population of donkeys in Africa and the second largest donkey population in the world after China (Anon, 2007). Equines are also important animals to the resource-poor communities in both rural and urban areas, providing traction power and transport services at low cost and in the remote areas of Ethiopia, pack animals offer the only realistic way of obtaining returns from agriculture above mere existence. Moreover, the increasing human population in Ethiopia has resulted in an increase in demands of donkeys for transport of goods to and from far, remote areas and construction activities (Biffa, D. and M. Woldemeskel, 2006)

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The argument that the animal’s quality of life is related to the naturalness of its environment seems fairly straightforward. Animals will be adapted to the environment in which they evolved and the animal may not be able to adapt or cope with any significant deviations from this environment. This argument has been used with zoo (Hediger, 1950) and farm animals (Harrison, 1964) and was the basis of early attempts to introduce legislation to cover intensive agricultural systems (Brambell, 1965). Scientists that support the natural living model of animal welfare commonly relate quality of life to performance of the full behavioural repertoire. The emphasis on the natural living model and full behavioral repertoire has been criticized both by welfare scientists and by those directly involved in the animals’ care for the reasons given below.

The five freedoms concept can be summarized for horses as follows:- Access to fresh water and an appropriate diet to maintain health and vigour, adequate comfort and shelter, freedom from stress or fear, the prevention of vice injury, parasitic infestation and disease, freedom of movement and the

opportunity to exercise normal patterns of behaviour, the company of other animals (particularly of like kind). This guide does not address the issue of the transport of horses (FAWAC., 2000).

The objective of this seminar is: To understand major welfare problems working equines.

To aware the audience about the welfare situation of working equines.

2. LITERATURE REVIEW

2.1. Generalities

Most equine cases that were observed in Ethiopia mainly related to the musculo-skeletal system including lameness, fracture, hoof overgrowth and abnormal gait. This is likely due to many reasons such as overloading, lack of hoof care and continuous movement in various landscapes and on rough roads were the main reasons for the occurrences of musculo-skeletal problems. This implies that any type of interaction between limb abnormalities in these animals may have serious welfare and health problems (Frape., 2003).

Welfare codes usually list five basic freedoms that should underpin animal welfare best practice at farm level. The five freedoms are listed below and provide an overall concept of animal welfare:- 1, Freedom from thirst, hunger and malnutrition 2, Freedom from discomfort 3, Freedom from pain, injury and disease 4, Freedom to express normal patterns of behavior 5, Freedom from fear and distress (FAWAC., 2000)

2.2. Health of equines

The most significant single influence on the welfare of the horse is the care and management provided by the person giving day to day care for the horse, which is usually the owner or keeper of the horse. (NEWC 1977). All horse owners and keepers have a legal duty to be aware of the welfare needs of their horses and be capable of providing for them under all reasonably foreseeable conditions. Management practices should accommodate the needs of horses, as outlined in the legislation, which in addition to an appropriate environment and adequate diet allow the expression of natural behaviour, particularly socialising, in a safe and protected manner, concurrent with the prevention of injury or disease. Donkeys bond strongly to other donkeys, horses and/or mules and care should be taken not to split up bonded partnerships in order to minimise the risk of illnesses (such as hyperlipidaemia) that may result from the distress caused to the donkeys. This is particularly important when the donkey has

only a single companion, especially if the companion is taken away or dies. (NEWC,1977).

Part of the donkey's ability to thrive in harsh environments derives from its resistance to certain diseases and its tolerance of others. This has allowed it to have a wide natural distribution. A survey of the parasite load of donkeys in the Central Highlands of Ethiopia indicates that the donkey can thrive well under extreme cases of parasite load that are not tolerated by other livestock species (Fesseha, 1991).

Equine health problems were reported as one of the major constraints to equine management and use. Among the health problems identified, the most frequently encountered were respiratory problems (with common clinical signs such as cough and nasal discharge), colic, back sores and epizootic lymphangitis. During the discussions, it was reported that these equine health problems continued to have major impacts on the equine users' livelihoods, either through direct loss of the animal, reduced production or through reduced capacity to work (Berhanu and Yoseph., 2011).

2.2.1. feet and teeth abnormality

Older donkeys may need more regular visits from a farrier, equine vet or equine dental technician to help them stay comfortable as their teeth and feet continue to wear. Feeding the older donkey can require specialist advice, as there are a number of factors which must be taken into account, including certain medical conditions. Donkeys with liver or kidney disease require specialist feeding which should be discussed with your vet. Donkeys with poor teeth will also require adaptations to the diet, as outlined in 'Feeding the donkey with dental disease' factsheet. One of the most common issue with feeding the elderly donkeys helping them maintain condition and preventing unnecessary weight loss. To help you find the right diet for your donkey the Donkey Sanctuary has produced a fact sheet on "Feeding the elderly donkey" (Jornal, donkey sa, 2003)

2.2.2. Lameness Assessment

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The laminitic risks associated with body-fat accumulation in overweight animals should be appreciated. Feed intake should be reduced gradually to decrease fat deposition, consistent with the avoidance of hyperlipidaemia. For horses and ponies of both normal and high condition score the selection of feeds suitable for laminitis requires analytical evidence (Frape., 2003)

A grading system of zero grades-immobile Lameness grading system was applied to each equine. The grading system was based on modified version of the American association of equine practitioners (Fielding, D. and P. Starkey, 2004).

2.2.3 Parasite and skin problem

GIT nematode infection was highly prevalent in donkeys and young age group where as sex and body condition was not significantly associated with prevalence of GIT nematode.(Tesfu et al., 2014).

Despite their significant contribution to the communities and the national economy little attention is given to study the health aspects of working equids. The available studies are mainly on the prevalence of infectious diseases with limited studies on ocular diseases and external injuries(Fikru et al., 2015).

2.3. FEEDING AND WATERING STATUS

Every horse must have free access to a supply of fresh, clean drinking water to meet its individual maintenance and activity requirements. The exception to this would be when access to water may need to be withdrawn for short periods of time during exercise and transport or when specified by a veterinary surgeon for health reasons.(NEWC., 2006)

The major animal feed sources in each woreda were fodder from grazing land and crop residues. Other sources such as industrial by-products and fodder from improved forage were insignificant. Grazing land was scarcer in the urban/peri-urban areas and so more feed had to be purchased to support working animals(Berhanu and Yoseph,2011).

Donkeys are not provided with any type of concentrate food. In most of the cases they are left to scavenge. It is anticipated that with systematic and better use of donkeys coupled with the understanding of the energy requirements of donkeys for work, there will be progress towards improved care and feeding programmes. This will be particularly important if donkeys are to be used for operations other than pack, such as carting (entailing a possible 10 fold increase in the load

factor) and/or the use of capstans for seed decorticating, oil milling, lifting water, threshing or other operations(Gebreab F et al., 2003)

main source of feed was crop residues, produced from most cereal crops and some legumes. Crop residues are those parts of the crop that remain when primary products or ripe seeds are removed by threshing. Straw from barley, teff and wheat constitute the major

component of the equine diet in all districts. Aftermath grazing is another source of dry season feed available immediately after cereal crops are harvested. However, more farmers each year are collecting these crop residues from fields rather than leaving them to be consumed communally. Crop residues from corn and sorghum are more likely to remain in the fields. Equines facilitate transport of crop residues to the homestead but they are not likely to be offered this feed(Berhanu and Yoseph ,2011).

Currently only a small percentage of equines are provided with adequate food and shelter year round. Equines without sufficient food are more susceptible to disease.(Gebreab, 1997).

2.4. ASSESSMENT OF WORK TYPE

Based on the types of work animals were categorized as draught, pack, ridden and others. "Draught" animals are those used for transport of goods and people by carts. "Pack" animals are those used for transport of goods by pack. "Ridden" animals are those used by owners for non-tourist riding, whereas "others" category includes foals and non-functional animals (Pritchard et al 2005).

Donkeys are important for transport relating to small scale farming, including the transport of:-grains from fields to farmsteads, grains to local markets or pick-up-points, agricultural inputs from distribution centers to Farmsteads, fuel wood, animal dung and charcoal for the rural and urban sectors, cash crops such as potatoes, onions and

other vegetables from fields to local markets or pick-up points, animal food such as hay, teff and wheat straw. (Gebreab F et al., 2003)

Donkeys have other economic and social roles including the transport of water for the rural as well as the urban sector, earthenware such as pots and plates, building materials such as stones, sand, treepoles and teff, straw, relief supplies from distribution centers to farmsteads, war hardware and ammunition, sick, aged, and disabled persons, and bodies for burial. (Gebreab F et al., 2003).

Donkeys may also be used in farming systems for: threshing cereal crops and beans by trampling, weeding in maize fields, plowing of land in association with oxen. (Gebreab F et al., 2003)

Equines were the major mode of transport, especially in rural areas, and were used as pack animals or for pulling carts and gharries which enabled households and business people to travel and transport different

materials/goods. They facilitated participation of the poor in the market economy (Berhanu and Yoseph, 2011).

The main uses of equines were as follows: -Donkeys – 56% of households kept donkeys mainly for pack services (to generate income and homestead use), 26% for cart use (to generate income), and 14% for pack use but exclusively for homestead use and 4% exclusively for renting, breeding or petty trade. Horses – 38% of households kept horses mainly for riding, 41% for gharry use, 18% for pack services (to generate income and homestead use), 2% exclusively for breeding and 1% exclusively for renting out. Mules 78.3% of households kept mules mainly for riding, 13% for pack services (to generate income and homestead use), 4.3% exclusively for renting out, and 4.3% for gharry use (Berhanu and Yoseph, 2011).

2.4.1. Over loading and Over working

Most donkeys are used as pack animals. Along the Koka-Awassa route a considerable number are seen pulling carts. Studies show that donkeys are utilised an average of 39 hours/year (h/y) in the Debre Birhan area for transport of crops from field to farmstead, plus 46 h/y for threshing (with other equids), plus 40 h/y for hay transport giving a total of 125 h/y. Transport to market occupies 308 h, bringing the grand total to 433 h/y (average 8.3 h/week). (Crossley., 1991)

Overloading and excessive work were reported as one of the constraints to equine use. Equines, including cart donkeys and gharry horses, were commonly exposed to overworking. Similarly, pack equines were usually made to work all day; in particular, donkeys hired out for work seemed to work very hard. Overloading was the commonest problem exposing the animals to different wounds and back sores. The saddle and harnessing materials were usually not appropriate adding to the chance of equines developing related health and welfare problems. These problems could arise from lack of knowledge or economic pressures (Berhanu and Yoseph, 2011).

2.5. Physical status

A horse's body condition should ideally be maintained at body condition score 3, varying no more than between 2.5 and 3.5 on a scale of 0 (Very Poor) to 5 (Very Fat). If a horse's body condition score declines to 2 or below; or increases to 4 or above then action should be taken to correct this. Similarly a donkey's body condition should be maintained at body

Condition Score 3 on a scale of 1 (Poor) to 5 (Obese) (NEWC., 2006)

"I suggest that an animal is in a poor state of welfare only when physiological systems are disturbed to the point that survival or reproduction is impaired". (McGlone, 1993). "Welfare defines the state of an animal as regards its attempts to cope with its environment." (Fraser and Broom, 1990). (animal welfare context)

2.6. Assessment of housing of equines

Horses kept in stables, yards or other built accommodation should be inspected at least twice a day. Things to monitor include signs of injury and ill health; body condition; and ill-fitting rugs, halters, bandages or other equipment. Ventilation systems in horse stables/housing should be capable of maintaining a sufficient air change rate to prevent excessive heat and moisture levels and to remove major dust and gas contaminants that can be damaging to the respiratory system of horses and humans (NEWC., 2006). Providing suitable shelter for your older donkey allows them to get out of the rain or the heat as well as avoiding flies. Leave doors open to give them choices of where they feel most comfortable. Access to a sunny spot will allow your donkey to sunbathe and warm any stiff joints or aching muscles if they wish. If possible provide a heat lamp in the colder months and allow your donkeys to choose if they need to use it. (J, donkey sanctuary, 2013)

Housing facilities should be designed and constructed to provide for the horse's welfare. Horses should be provided with a clean, dry area for lying down. In all types of housing systems horses should be free to stand up or lie down comfortably at all times. Housing facilities should provide for enough height to permit horses to have a full range of head and neck motion without touching the ceiling when standing with four feet on the floor. Flooring should be properly designed, constructed and maintained to provide good traction, proper drainage, comfort and prevent injury. The design of housing facilities and the materials used in their construction should permit thorough cleaning and disinfection from time to time (FAWAC., 2000)

2.7. Harness assessment of equines

Handling and restraining devices must be used humanely and with regard to the horse's natural movement, behaviour, temperament and physical capabilities. They should only be used by sensible, competent persons (NEWC., 2006)

3. CONCLUSION

Working equines in Ethiopia were experiencing multiple welfare problems and the major constraints that contribute for poor welfare treatment were lack of good management practices, harnessing problem, over loading and over working, disease and lack of veterinary service program, lack of balanced nutrition and wound. Hence, a comprehensive equine health, management and welfare promotion program is important to alleviate the problems

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