

# Level of awareness among herdsmen and Welfare Status of dairy cows in Tatton Agricultural Park, Njoro

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Kimetto CB, Wyckliff N. Level of awareness among herdsmen and Welfare Status of dairy cows in Tatton Agricultural Park, Njoro. *J Vet Res Med.* 2022;4(2): 01-03.

## ABSTRACT

A survey on assessment of common animal welfare issues and the level of awareness of herdsmen was carried out in Tatton Agricultural Park (TAP) between November 2019 and March 2020. The main aim of the study was to identify common animal welfare issues affecting dairy cows in TAP, to measure the level of awareness amongst stockmen on animal welfare standards and practices in TAP. This was achieved by collecting data through administration of structured questionnaires and observation of dairy animals within their environment to identify the welfare concerns.

This study revealed that animal welfare though adapted in Tatton Agricultural Park is still poor. Generally, the farm has practiced most animal welfare issues without knowledge. Eighty percent of herdsmen were not aware of the

term animal welfare, while the other 20% were aware getting information mainly from attending livestock workshops and interactions with veterinary practitioners. Herdsmen described feeding of animals, treating sick animals, tick control, provision of shelter and vaccination as good animal welfare practices with animal neglect, failure to treat sick animals, starvation, skin injuries and poor housing as bad welfare practices. Seventy percent of herdsmen could not provide shelter for animals at night, however, 40% had never implemented any form of ectoparasite control. On the observation of behavior of the herd, 70% of the cows manifested a positive behavior, calm and friendly when approached while 30% showed apprehension when approached and were restless in their natural environment. The general animal environmental status was poor with poor waste disposal. Therefore, the welfare of the dairy animals is not to the standard and the farm managers are advised to put in good management practices to improve the welfare of the animals which will also improve their production and productivity.

**Key Words:** *welfare; herdsmen; dairy cattle; Nakuru*

## INTRODUCTION

Animal welfare is an aspect that focuses on the well-being of animals [1]. The Farm Animal Well-being Council (FAWC) defines animal welfare as the mental and physical well-being of animals and is also referred to as an animal's "quality of life". Animal keeping and use is common in Africa, an area which gives little or no regard to animal protection [2].

Animal welfare abuse is common in form of; starvation, abandonment, overworking, overcrowding, overloading, malicious physical injuries and inhumane treatment during slaughter. These poor animal welfare practices have been supported by lack of adequate legal and policy provisions, lack of extension services that help create animal welfare awareness amongst the people and lack of facilities and funds to monitor and minimize cruelty to animals [3].

Kenya as a country has not been a good implementer of animal welfare [4]. With the increased population and the demand for money, animals have been an easy target for exploitation. Today calves are being starved, while cow's milk is sold for human consumption. Animals being taken for slaughter are mishandled during transportation and during slaughter.

Dairy animals play a major role in our lives. Animal welfare is an important aspect for dairy animal industry both locally and internationally. Over the years, animal production has intensified in order to meet the high demand of food by the public, this has led to neglect of the animal well-being and more focus directed towards increasing production [5]. Dairy farmers aim to maximize profits and pay little attention to issues that are important for animal's physical and mental health. For example, breeding of dairy cows has led to production of a cow that gives large volumes of milk but the udder is pendulous and can predispose to mastitis. Dairy farmers in intensive systems, in order to maximize the profits have, increased stocking rates of cows in small piece of land in order to produce more milk. Dairy cows should be provided with good housing with protection from harsh environmental conditions [6].

In the modern times animal-human bond is strong. Efforts have therefore been put in place to ensure animal welfare awareness. In regard to animal welfare, World Organization for Animal Health, Office International des Epizooties (OIE) has produced guidelines that are aimed in promoting international trade between world trade organization members. These standards are not mandatory but promote and smoothens trade between OIE member's states [7].

Welfare status of dairy cows is not constant. It can be good, in between or bad. An animal in good welfare state is comfortable, healthy, and free from pain/injury, free from fear and distress and is able to express normal behavior in natural environment. Good animal welfare requires good husbandry practices e.g. good housing, humane handling during slaughter, good nutrition, prevention and treatment of diseases. An animal is in good welfare state when: there is low occurrence of diseases, expression of normal behavior, normal reproduction and increased production [8].

Poor animal welfare can manifest as; malnutrition, increased incidence of diseases, increased mortality rates, heavy infestation with internal and external parasites, poor reproduction and poor production. Human concern for animal welfare is based on the fact that animals are sentient beings Africa Network for Animal Welfare [9]. Ensuring animal welfare is therefore a collective responsibility by the government, veterinarians, dairy farmers and other relevant stakeholders. Therefore, this study aims to shade light on animal welfare issues facing dairy animals in Tatton Agricultural Park, Egerton.

## RESEARCH METHODOLOGY

Study was carried out in Egerton Tatton Agricultural Park, located within Njoro sub-county in Nakuru County where many people practice mixed farming. The altitude is 1850 m above sea level with a cool and wet climate, experiencing rainfall throughout the year. The project targeted dairy cows and the herdsmen in the farm. A total of 200 cows and 10 herdsmen were recruited into the study. The data was collected through administration of structured questionnaires to herdsmen and observation of dairy cows and

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Received: 24-Mar-2022, Manuscript No. PULJVRP-22-4566; Editor assigned: 28-Mar-2022, PreQC No. PULJVRP-22-4566(PQ); Reviewed: 5-Apr-2022, QC No. PULJVRP-22-4566(Q); Revised: 8-Apr-2022, Manuscript No. PULJVRP-22-4566(R); Published: 13-Apr-2022, DOI: 10.37532/puljvrp.2022.4(2).1-3.



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their environment for welfare issues of concern. The data was entered onto Microsoft excel spreadsheet and exported to statistical package for Social Sciences (SPSS version 22), analyzed and descriptive statistics done for the various variables.

### OBSERVATIONAL STUDY

In regard to animal behavior, the study revealed that cows' behaviour was fair, half of the population was active and responded positively when approached. Whereas for general health, skin coat injuries were recorded for 48% of the population and 55% with soiled perineum indicating diarrhea. General observation on feeding and housing revealed that there was some feed in the feeding trough and drinking water in the waterers. However, waste disposal was bad as the houses had slurry on the floor.

### RESULTS

#### Awareness on animal welfare

The study revealed that only 20% of the herdsmen were aware of animal welfare concept mainly from attending workshops and interaction with veterinary practitioners.

#### Good animal welfare practices

Results reveal that the herdsmen had an idea on which practices are good (or bad) in relation to animal welfare. The good animal welfare practices reported by the respondents included; proper feeding of animals, prompt treatment of sick animals, tick control, provision of shelter and vaccination (Figure 1). However, some of the poor animal welfare practices reported by the herdsmen included starving animals (40%), beating animals (30%), neglecting sick animals (20%) and overstocking (10%). The herdsmen further reported different abnormalities, on various parts of the body of the animals as indicators of poor welfare state; Limb abnormalities (100%), hoof abnormalities (80%), eye abnormalities (50%) and nasal discharges 20%.

#### Dealing with sick animals, feeding, watering and housing

Results revealed that majority (60%) of the herdsmen would neglect sick animals with 30% reporting it to the farm manager and only 10% taking the initiative of providing some medical assistance to the sick animals. Results indicated that 50% of the herdsmen fed the animals twice a day while 30% of them fed the cows once a day. The rest (20%) could not indicate the feeding frequency because animals were left to graze by themselves and only supplemented with dairy meal and minerals. On the type of feed given to the animals, pastures (60%) was the most common, followed by combinations of pasture and dairy meal (20%) and pasture and hay respectively (20%). On the quantity of dairy meal given to each animal per day, 50% of the herdsmen said they provide more than 2 kgs of feed per day while the remaining half did not know the amount given to the animals. In regard to provision of drinking water, majority (70%) reported providing it once a day while only 10% provide at least twice a day whereas 20% reported that water was provided ad lib. Half of the respondents take animal to drink from the nearby river, 30% provided tap water and 20% from the dam. Majority (70%) of the herdsmen said that they do not provide any form of shelter to the animals at night whereas the others, (30%) provided shelter for the animals at night in the cowshed. Pertaining to Ectoparasites control, 40% of the respondents could spray their cattle at an interval of 3 months, 20% after every 6 months. However, 40% of the herdsmen had never sprayed their animals to control ticks.

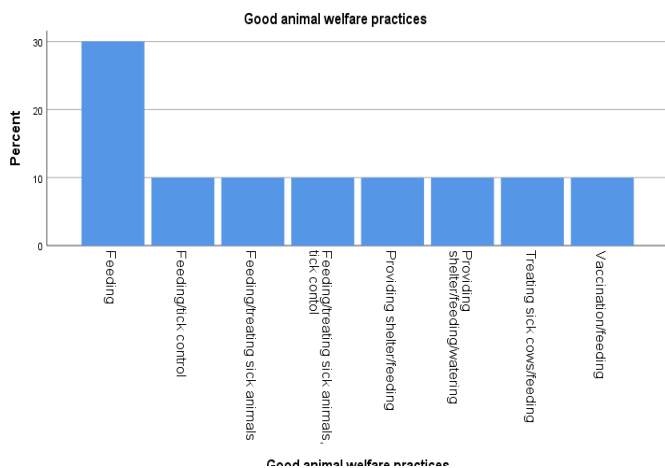


Figure 1) Good animal welfare practices known by the herdsmen

### DISCUSSION

Animal welfare is a wanting issue in Tatton Agricultural Park. It has been adopted but there are welfare freedoms not being practiced they include: freedom from fear and distress by avoiding conditions that cause mental stress. Freedom to express normal behavior by providing adequate space and facilities.

While those adapted being poorly implemented: freedom from thirst, hunger and malnutrition. From the findings TAP provided feeds but it was not balanced diet and not enough for the herd. Hart, et al. described a balanced diet as all essential nutrients and supplied in required amounts [10]. This was attributed to management in the farm, the animals were left to graze in the fields and supplemented with hay and dairy meal, which was thought to be economical as the farm did not manufacture its own feeds and it would be expensive to buy feeds. [10] Freedom from pain, injury and disease: some practices in TAP included ectoparasite control, reporting sick animals to the farm manager so that can be attended to. Those who reported were sympathizing with the sick animal while those who did not report did not see the need. There were many conditions common in the farm hoof abnormalities being the top, this confirms the study by Anon [11] reporting lameness as a major problem in the herd. This was associated with poor housing structures, floors and their environment. Freedom from thermal and physical discomfort: TAP despite providing housing had poor structures with inadequate space which had the potential to cause injury, and waste disposal was poor, the environment where the herd stayed was dirty with a lot of slurry. There is still need to provide a suitable environment including shelter and comfortable resting area. Level of awareness on animal welfare by herdsmen is as well wanting. Most herdsmen practiced animal welfare without knowledge what it is. Generally, the farm has practiced animal welfare without knowledge. Eighty percent of herdsmen were not aware of the term animal welfare this was attributed to their level of education, while the other 20% were aware. This can be rectified as most herdsmen indicated their willingness to attend workshops and other relevant welfare awareness events.

### RECOMMENDATIONS

- The farm should hold animal welfare workshops to educate herdsmen on animal welfare and five animal freedoms
- The farm should provide better housing structures which will protect the animal from harsh and extreme weather and it should have good designs that are easy to manage at all times
- The farm should provide a balanced diet with, proteins, lipids, vitamins, and other trace elements. The feed should be palatable and free from contaminants. Feeding schedules should be done and enough rations given. Provision of water should also be ad libitum. This ensures nutritional adequacy
- The farm should provide a better ectoparasite control protocol. Treatment, vaccination and biosecurity measures should be prioritized to ensure health in the herd
- The farm should provide a clean environment, manage waste disposal to avoid accumulation of slurry which is a breeding area of disease vectors and also could be a predisposition to lameness
- The farm should look into processing their own feeds for use in future

### CONCLUSION

Animal welfare is poor in Tatton Agricultural Park. While those adapted being poorly implemented. Animals in TAP are underfed and not given a balanced diet. Hoof abnormalities in TAP are high. Housing structures are poor with inadequate space which had the potential to cause injury. Waste disposal is poor; the environment where the herd stayed was dirty with a lot of slurry. Level of awareness on animal welfare by herdsmen is as well wanting. Most herdsmen are not aware of animal welfare.

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