The Welfare Quality® assessment protocol: how can it be adapted to family farming dual purpose cattle raised under extensive systems in tropical conditions?

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Abstract

Family farming is still the main source of income for many people in the tropical regions of the world. At the same time, modern society is quickly becoming more aware of the welfare of animals for human consumption. The main objective of this study was to illustrate the need to modify certain aspects of the original Welfare Quality® (WQ) protocols developed by the EU-funded WQ project, under the conditions of small community farmers in the tropics. Thirty-four dual purpose farms in the State of Chiapas, Mexico, which had their main production focus on milk but for whom beef production was also of significant value, were evaluated utilising a merged version of the WQ protocols for dairy and beef cattle. Based on their average score, the farms obtained at least an acceptable level in each indicator of welfare. However, after merging indicators from the dairy and beef cattle protocols of WQ in order to adjust it to the prevailing conditions in the tropics, a number of sections are not applicable. This is particularly true of the section related to good housing, where most of the items do not apply due to the absence of infrastructure; the farms obtained a very high score in this section but further studies to verify whether this reflects an accurate assessment of the welfare status should be carried out. In general, the approach of the WQ protocol was useful, however certain aspects are quite different from the conventional intensive farming systems predominantly used in Europe and there is a need to implement a number of modifications.

Keywords: animal welfare, Bos indicus, Bos taurus, dual purpose cows, sustainability, tropics

Introduction

People are becoming increasingly more aware of the environment and the ethical treatment of animals. Consumers are requiring information on the origin of food produced from animals (Smith & Brower 2012), demanding a halt in the carbon footprint produced by dairy and beef industries, and asking for products free of the residues/chemicals commonly used in commercial farming (Wauchope 1978; Rigby & Caceres 2001). One important aspect of direct concern to the quality of animal products is farm animal welfare, which is indeed becoming a great concern to society in both developed and developing countries.

In emerging economies, family farming is still the main source of income for a large part of the population, particularly in the tropical regions of the world (González-García et al 2012). Research is necessary to ensure the sustainability (with respect to animal welfare, environmental parameters, source of income) of such small farms. One way of measuring animal welfare is to use currently available standardised protocols related to housing and management procedures (European Commission 2006). However, these may need modification in relation to the local tropical conditions and management systems. Products from farms having been evaluated using these protocols can be labelled in a specific way to provide consumers with a variety of welfare options, potentially enhancing future trade opportunities for these small community family farms.

Societal concerns and increasing consumer awareness of animal welfare was the main driver behind the EU-funded Welfare Quality® (WQ) project in 2004. Within this project, a set of predominantly animal-based, on-farm animal welfare assessment protocols, including one for dairy cattle, were developed. The cattle welfare assessment protocol has been used in a number of scientific studies (Knierim & Winckler 2009; Popescu et al 2013) under European conditions, ie mainly on large commercial farms which are based either on seasonal grazing or indoor