Estimating the economic value of Australian stock herding dogs

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Abstract

This study aimed to estimate the value of the typical Australian herding dog in terms of predicted return on investment. This required an assessment of the costs associated with owning herding dogs and estimation of the work they typically perform. Data on a total of 4,027 dogs were acquired through The Farm Dog Survey which gathered information from 812 herding dog owners around Australia. The median cost involved in owning a herding dog was estimated to be a total of AU$7,763 over the period of its working life. The work performed by the dog throughout this time was estimated to have a median value of AU$40,000. So, herding dogs typically provided their owners with a 5.2-fold return on investment. When respondents were asked to nominate the maximal, one-off, veterinary expenditure they would consider to remedy an illness or injury for an especially valued dog, the median response was AU$1,001–2,000 which is not concordant with the dogs’ calculated median lifetime value. The current findings equip working dog owners with useful information to make financially appropriate expenditure decisions related to their working dogs. This is expected to increase farm profitability and improve welfare for farm dogs.

Keywords: animal welfare, canine value, farm economics, owner survey, stock herding, working dog

Introduction

Australia has approximately 91,000 livestock producers (Australian Bureau of Statistics 2012b) each of whom employs an average of three working dogs to assist with their stock handling requirements (McNair Ingenuity Research Pty Ltd 2012). The contribution of these dogs, according to Australian lore, is considerable (Parsons 2010). However, a quantification of the value of the stock herding dog to the livestock industries has not previously been achieved.

To maximise profitability, producers must be cognisant of the cost of production and make investment decisions based on the expected financial returns (Kumbhakar & Bokusheva 2009; Hall et al 2012). Herding dog ownership represents an investment into farm labour efficiency. Therefore, expenditure decisions associated with the care and upkeep of working dogs should be informed by knowledge of the value of these animals. In this way, the welfare of the farm working dog is intimately linked with their perceived value. Although some producers have affection and respect for their working dogs (Savalois et al 2013), these emotional factors may not be sufficient to justify expenditure on these animals. A recent exploration of the attitudes of dairy farmers revealed that, although many of the study participants recognised their cows as having an intrinsic value beyond production, the cost-effectiveness of treatment intervention was the factor most likely to influence the farmers’ intention to take action on the health of their herd (Bruijnis et al 2013). Similarly, 39% of livestock producers surveyed by Jensen et al (2009) cited the cost of veterinary care, relative to the value of the animal requiring treatment, as an obstacle to using these services. Therefore, an exploration of working dog value may have implications for farm dog welfare. As a potentially valuable resource, dogs may merit a level of care reflective of their economic value to the farm enterprise, regardless of the emotional attachment of the dog owner.

The goal of the present study was to estimate the net economic worth of the Australian stock herding dog. Additionally, we hoped to gain some insight into the way farmers currently perceive the worth of their stock dogs by assessing financial decisions that directly affect their dogs. A questionnaire was constructed for Australian stock herding dog users to collect the necessary data for these estimations.

Materials and methods

The Farm Dog Survey was designed to investigate many areas of farm dog usage and management and the characteristics and views of their owners. However, for the purposes of estimating the economic value of herding dogs, respondents were asked approximately 20 questions associated with the cost of acquiring and maintaining their dogs, the time invested in training them and the dogs’ workload and longevity.