Economic Analysis of Metabolic Diseases in Bovines: A Review

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Abstract In a dairy farming, among more diseases, metabolic/calving diseases are of great concern to dairy producers worldwide. Dairy cattle metabolic disorders, which are disease related to disturbance of one or more metabolic processes in the organism. This paper presents an overview the evaluation of the economic impact of metabolic diseases in bovines. References will be limited to economics rather than general focus, with emphasis on the most current reviews. The search was performed with the key words being part of the title, descriptors and / or appearing anywhere in the reference in order to find as many papers dealing with metabolic diseases as possible. The important metabolic diseases such as ketosis, milk fever and downer cow complex are discussed under two headings viz., prevalence/incidence rate and quantification of economic loss.

Keywords Downer Cow Complex, Incidence, Ketosis, Milk Fever, Prevalence

1. Introduction

The prevalence of animal diseases in the world has been reduced in the last four decades due to its economic importance; there are still some of the livestock diseases that cause reduction in production efficiency leads severe economic losses (Johnchristy and Thirunavukkarasu, 2006; Nagategize and Kaneene, 1985). An assessment of a disease based on economics is not only due to lack of available parameters or data e.g. quantifiable data on weight loss, milk loss, extra labour cost, medicine and treatment charges, calving and fertility problems due to a disease, but it is also due to the setback of validation for such models (Singh and Shiv Prasad, 2008). Disease outbreak among dairy cows constitutes a problem both in terms of financial losses (value of dead cow, decreased production and extra labour) and compromised animal welfare (suffering before death or euthanasia), (Thomsen and Houe, 2006). The economic implications of animal diseases are becoming increasingly important at both farm and national levels, as diseases represent avoidable waste of scare resources, especially cross breeds, as they stand more susceptible to diseases, hardships and contingencies peculiar climate (Thirunavukkarasu et al., 2010a).