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Development of a Bilingual Training Tool to Train Dairy Workers on the Prevention and Management of Non-Ambulatory Cows

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Abstract: Dairy cows at risk of becoming non-ambulatory or downers represent economic losses and animal well-being issues for the dairy industry. Colorado State University researchers and Extension faculty collaborated with Colorado's dairy industry to create a training tool for the early identification and management of cows at risk of becoming downers on dairy operations. The training tool is a DVD that contains a short movie, a Power Point presentation, a quiz, and links to additional Web resources. All materials are available in English and Spanish to accommodate the language differences of the predominant cultural groups employed in the dairy industry.

Introduction

The identification of dairy cows at risk of becoming non-ambulatory is of great importance to the dairy industry. Cows at risk of becoming downers due to poor body condition, illnesses, or injuries represent revenue losses as a result of price deductions at auction market level (Ahola et al, 2011) and as a result of removal from the food chain when they become non-ambulatory or downers. Besides economic repercussions, animal well-being concerns and increased consumer awareness are strong motivators to identifying these animals early in the course of disease and managing them appropriately in order to decrease the occurrence of downers and improve the chance of that animal to remain healthy and productive.

Culturally appropriate training tools designed for dairy employees are necessary for increased awareness and avoidance of animal well-being issues and economic losses on dairy operations.

Description of the Training Tool

The DVD program Prevention and Management of Non-Ambulatory Dairy Cows was developed by faculty from the Departments of Animal Sciences and Clinical Sciences of Colorado State University with the goal of providing best management practices for dairy operations on the identification and management of dairy cows at risk of becoming non-ambulatory or downers. The DVD training tool was developed in collaboration with Colorado dairy producers and with the support of the Western Dairy Association.

Following a similar format to earlier training tools developed by CSU researchers (Dewell et al, 2009), this training program contains a short (21-minute) movie, files with Power Point presentations, and a list of additional Web resources for on-farm trainers. To address potential language and cultural barriers to effective communication (Roman-Muniz, Van Metre, & Garry, 2007), all the training materials were developed in both English and Spanish and using layperson language to explain important concepts related to postparturient diseases, physical examination techniques, and field euthanasia methods appropriate for dairy cows. Safety awareness and injury avoidance topics were included because such training is more effective when included in the context of training for specific workday tasks (in this case, recognition of, care of, and euthanasia of downer cows) (Roman-Muniz et al, 2006).

After the language is selected, the facilitator may choose to play individual chapters or the whole program. After a short introduction, the program focuses on the following topics:

- Identifying cows at risk of becoming downers: This chapter discusses tools available to identify cows that could be at risk of becoming non-ambulatory. It also reviews the basic steps of a physical examination that could be useful in identifying cows in need of medical attention.
- Common causes of downers: This chapter reviews common diseases and injuries that could result in non-ambulatory dairy cows.
- Assessing and caring for the downer cow: This chapter includes a discussion of basic care to maximize the comfort and well-being of a downer cow and to increase her chances of recovering. It also provides questions to be asked when deciding either to provide further medical treatment or euthanize. The chapter concludes by reviewing the landmarks for on-farm euthanasia by gunshot to the head and how to determine if the euthanasia was effective.

The DVD program ends by emphasizing the relationship between dairy cow health and well-being, and consumer health and safety. It also stresses the importance of early identification and treatment of sick and injured animals.

The DVD also includes a 20 multiple choice-question quiz for dairy workers to test their knowledge on the topics covered during the training session. As with the training chapters, the quiz is delivered using common, everyday language, easily understood by workers from a variety of English and Spanish-speaking countries.

Applications and Future Directions

This DVD is intended for use as part of the dairy training curriculum for new English- and Spanish-speaking employees. This training tool is also suitable for periodic review training for all employees on the dairy operation. In addition to inclusion of strategies for identification and management of cows at risk of

becoming non-ambulatory, this training tool aims at promoting discussions between management and labor regarding the decision making process when sick, injured, and downer cows are identified. Timely discussion of management of a downer cow among farm managers and employees could limit the potential for delayed decisions and improper actions, both of which can negatively affect the animal's prognosis for recovery and its well-being.

To this date, over 1100 DVDs have been mailed out to dairy producers, state veterinarians, and dairy specialists from some land-grant universities. If you would like to obtain a copy of the training materials, please contact Dr. Noa Roman-Muniz at <noa.roman-muniz@colostate.edu>.

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