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Promoting a Consistent Food Safety and Quality Message to the Dairy Industry: An Updated Resource for Extension Faculty, Veterinarians, and Dairy Advisors

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Promoting a Consistent Food Safety and Quality Message to the Dairy Industry: An Updated Resource for Extension Faculty, Veterinarians, and Dairy Advisors

Abstract

A team from seven western states developed educational resources providing a consistent meat safety and quality message to dairy producers, farm advisors, and veterinarians. The team produced a Web site and CD-ROM, DairyBeef: Maximizing Quality & Profits, consisting of videos, narrated slide sets, and on-farm tools. An additional project translated much of the curriculum into language appropriate for farm labor in both English and Spanish. DairyBeef: Maximizing Quality & Profits will help Extension faculty, veterinarians, and dairy advisors assist dairy producers and their employees in understanding market cattle food safety and quality issues and management practices to address them.

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Introduction

Dairy market cattle represent 7% of the total beef production in the United States (Roerber et al., 1999). Over 800,000 dairy cows, worth about \$500 million, are marketed to slaughter every year in the western United States alone. Implementation of Hazard Analysis Critical Control Point (HACCP) plans by meat packers has focused attention on the quality of incoming cattle (USDA: Food Safety and Inspection Service, 1996; Stefan, 1997; USDA: Food Safety Inspection Service, 1999a, 1999b).

Specific producer educational programs on current and emerging market cow issues, including strategies that can be implemented on the farm, are necessary for maintenance and development of the cull cow market. In addition to educating producers, farm labor, Extension faculty, dairy veterinarians, and dairy advisors must be recruited to reinforce a consistent message about food safety and quality and to help motivate and support change.

The Need for Dairy Beef Education

The U.S. beef industry recently conducted an audit of quality defects in market cattle at slaughter, including dairy cattle (Roerber et al., 1999). Quality defects, costing nearly \$70 for every cow marketed included:

- Residue violations,
- Poor body condition,
- Visible abscesses, and
- Injection site lesions in the round.

Conclusions from the audit were that dairy producers could improve the quality of market cattle by:

- Managing to minimize defects and quality deficiencies,
- Monitoring the health and condition of cows, and
- Marketing cattle in a timely manner.

A survey of meat packers, dairy veterinarians, and government veterinarians established the need for on-farm food safety education (Moore et al., 2000). Meat packers considered the quality of incoming dairy market cattle as a control point for food safety hazards. Greater than 50% of dairy and government-employed veterinarians believed that a current market for on-farm food safety services existed. Furthermore, greater than 85% of dairy and government-employed veterinarians thought that a potential market for on-farm food safety services would emerge. In addition to identifying potential educational needs, and because the primary goal of the project was to provide a consistent food safety message, the veterinary audience was targeted for education, in addition to Extension faculty and dairy consultants.

Program Development and Design

For the initial curriculum development, land-grant university faculty from seven western states were recruited to the project based on location, expertise, and Extension program focus. The states represented have over 25% of the nation's dairy cattle and included Arizona, California, Colorado, Idaho, New Mexico, Oregon, and Washington.

The *DairyBeef* Web site (<http://dairybeef.ucdavis.edu>) and first CD-ROM were developed using a modular educational format (Moore et al., 2004). A Trainer's version of the CD-ROM was designed so that Extension faculty, veterinarians, dairy consultants or farm advisors could provide the course in a classroom setting. The CD-ROM includes:

- Notes on program advertising,
- System requirements and software needs,
- Computer-file names of educational segments,
- Registration,
- Quizzes, and
- Course evaluation form.

The new Trainer's version includes a dairy farmworker curriculum in English and Spanish. To develop the farm worker versions, faculty selected specific segments of the producer curriculum, evaluated and adjusted the language and images to target farm workers, and then evaluated and adjusted the language for translation into Spanish using professional translators with oversight by a Spanish-speaking dairy veterinarian. There were four segments translated:

- Why was my cow condemned? (slide set)
- Residue prevention (video)
- Preventing carcass defects (slide set)
- Reducing biological risks from market cows (slide set).

The slide sets can be presented either with the given narration or with a printable script used by the trainer.

Use of the Curriculum

Once the final producer and farm worker educational segments were completed, faculty have used the materials in different ways:

- In California, faculty conducted Train-the-Trainers classroom instruction on how to use the materials, give effective presentations, and facilitate discussions. Over 30 veterinarians and

dairy consultants participated in 2004.

- In January 2005, 500 CD-ROMs (Trainer's version) were distributed to veterinarians and dairy consultants in the seven cooperating states. Also, the Web site was featured in the National Mastitis Council's Committee Meeting on Residue Avoidance.
- In January 2006, the residue prevention video was incorporated into the University of Idaho Spanish language Milker's School.

The Web site continues to receive "hits" daily. Between January 1, 2004 and July 10, 2005, the total number of "hits" was 61,859 with a range of daily hits of 0-828 (FlashStats™). The largest daily spikes occurred at the time the Web site was being marketed at a national bovine veterinary conference in September 2004. The predominant number of "hits" occurred mid-week, after 7:00 pm.

Trainer's CD-ROMs are available from The University of California, Division of Agriculture and Natural Resources Communication Services or by phone at 1-800-994-8849.

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