

# Drug Residue Avoidance Practices in Dairy Cattle: Practitioner and Producer Survey Responses

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## Introduction

Veterinary drugs are routinely used in the dairy industry. The Federal Food, Drug, and Cosmetic Act specifically mentions veterinarians as individuals who could be responsible for illegal drug residues in edible animal products. Despite the laws and inspection activities by federal agencies, drug residues in animal products continue to cause public health concern. Of particular concern are culled dairy cows that are eventually sold for beef. Previous research has found the greatest level of drug residue violations in beef from cull dairy cows and bob veal in the United States. As part of the development of an overall educational program for dairy beef quality assurance, an industry-wide group wanted to assess the knowledge, practices and attitudes of bovine veterinarians and dairy producers concerning beef quality assurance, with particular emphasis on drug residue avoidance. Two survey instruments were developed for dairy producers and for veterinarians in order to identify effective methods for educational outreach

## Materials and Methods

The knowledge, attitudes, and behaviors surrounding dairy beef quality assurance and drug residue prevention were assessed with two survey instruments for dairy practitioners and dairy producers. Questionnaires were designed by a team from University Of Minnesota with extensive input from professionals in the beef industry, governmental organizations, and academic institutions. The survey for practitioners was the first to be released. The questionnaire was mailed to all 4,540 members of the American Association of Bovine Practitioners as an insert in the member newsletter. The producer survey was mailed to dairy farmers in the upper Midwest during the Spring of 2007. 3,300 surveys total were mailed to dairy producers in North Dakota (339), Minnesota (1500), and Wisconsin (2800). Topics covered in both the practitioner and producer questionnaires included respondent demographics, treatment strategies, record-keeping practices, drug information sources, understanding of cull cattle marketing and processing,

and interest in Dairy Beef Quality Assurance. Questions asked specifically of dairy practitioners included drug administration practices, dispensing practices of specific drugs, and impressions of clients' attitudes and behaviors regarding drug residues. Questions asked only to dairy producers covered sources of cattle drugs on the farm, understanding of antibiotic resistance, types of cattle handling facilities on the farm, and about personnel involved in treating dairy cattle.

## Results

The dairy practitioners' survey was mailed to all 4,540 AABP members. Of 2,980 eligible respondents, 287 veterinarians completed the survey (9.6%). Results of the survey include commonly used injection sites, use of specific drugs in dairy cattle, use of treatment protocols and records, and interest in further training in Dairy Beef Quality Assurance. At the time of the abstract submission, producer surveys were continuing to arrive from respondents. The results of the producers' survey are expected to show similar patterns of drug use and record-keeping practices as seen in the practitioners' survey.

## Significance

A team effort is needed to increase veterinarian and producer awareness about Dairy Beef Quality Assurance, build incentives for compliance, and enforce residue violation laws. With the cooperation of producers, beef processors, and pharmaceutical companies, veterinarians can further assure the safety of our nation's food supply. The results of this survey will be used to focus the efforts of a team from the University of Minnesota with beef industry professionals and veterinarians from the University of Nebraska, Texas A&M University, the FDA, USDA-APHIS, and state agencies in South Dakota and Wisconsin. Future educational tools will focus both on veterinary and producer audiences to increase awareness about drug residue avoidance in cattle and promote good Dairy Beef Quality Assurance practices.