Dairy Beef– It's What's for Dinner!

Drug Residue Avoidance in Dairy Beef

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As suppliers of milk and meat products, dairy producers play an important role in maintaining consumer's confidence in the safety and wholesomeness of both food products. Dairy producers do an outstanding job of producing high quality milk, but at the same time this cannot always be said about the quality of dairy beef that ends up in our food supplies. Each year approximately 33% of the beef production in the U.S. is from market dairy cows (Smith et al.,1994). The Food Safety and Inspection Service (FSIS) of the United States Department of Agriculture (USDA) reported in a 2000 study that dairy cattle represented over 50% of cattle harvested in 43% of the nation's largest slaughter plants (FSIS-USDA, 2000). So what happens to all this dairy beef that is processed at these slaughter plants? According to Dr. Deb Roeber, Oklahoma State University Department of Meat Science, approximately 56% of a cow or bull carcass will be utilized as meat trimmings. Meat trimmings are used to produce ground beef; however, 44% of each cow, according to the *1999 National Market Cow and Bull Beef Quality Audit* (NMCBBQA-1999; Roeber et al., 2000), will be utilized as whole muscle cuts and/or 100% visual lean product to provide steaks and roasts to such places as Arby's, family steak houses and airlines. So you can see that dairy beef "is for dinner" on the plates of many consumers in America. The importance of producing a safe and wholesome dairy beef meat product is always on the mind of our agricultural industry and in the forefront of today's food safety minded consumers.

The NMCBBQA-1999 outlined the leading meat quality challenges that exist for dairy market cows and bulls. One of the top quality challenges identified in the NMCBBQA for dairy market cows and bulls were antibiotic residues. The use of antibiotics has considerably improved the health and production of food-producing animals; however, antimicrobial resistance and residues are of concern to consumers and health professionals. Consuming meat with antibiotic residues from food-producing animals may potentially cause allergic reactions and impact the intestinal tracts of humans (Witte, 1998).

According to data compiled by the USDA through the National Residue Monitoring Program, the classes of cattle with the greatest volatile residue rates for antibiotics are dairy cows and bob veal calves. According to the FSIS, violations of residues occur >3 times as often in carcasses from dairy cows (1%) than from beef cows (0.3%). Drug residue violations are checked under the USDA-FSIS's monitoring system. Since 1999, the USDA-FSIS has modified procedures for alerting producers, packers and others of residue violations. Today, repeat offenders (those with more than one residue violation in a 12-month time period) are listed on the FSIS Repeat Violators List Report. This report appears on the USDA-FSIS Residue Information Center website: http://www.fsis.usda.gov/oppde/ric.

Sales of market cows from dairy operations equals approximately 5% to 15% of the dairy farm's total income (VanOverbeke, 2003). Management practices and a keen awareness of meat quality and safety implications in the food chain need to be on producers' radar screens. If cull cattle are managed correctly, some research has indicated extended feeding of market cows can increase body condition score (BCS), carcass value, carcass characteristics (Jones, 1983; Apple et al., 1999), and can potentially increase profits to the producer (Jones, 1983; Apple, 1999). Increased fat cover and decreased bruising associated with transportation have been noted (Smith et al., 1994). Most importantly, extended feeding could reduce the possibility of antibiotic residue violations by allowing adequate time for drug compounds to clear an animal's system. Generally, the withdrawal time for most animal-health products is much longer for meat than milk.

Today's society is becoming more in tune about the foods they feed their family. Consumers are focusing on food products that allow them to feel a sense of security about their food product choices. At the same time, food chain suppliers, packers and food services are addressing the increasing standards and demand by customers for traceability and source verification of food products. Producers need to evaluate their cull cow and bull management decisions and closely evaluate the ability to add value and meet safety requirements of the food products they supply. To learn more about Dairy Beef Quality Assurance practices, visit the Midwest Dairy Beef Quality Assurance Center at http://www.mnbeef.org or the National Cattlemen's Beef Association at http://www.beef.org.

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