



Cattle Producer's Handbook

Quality Assurance Section

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Beef Quality Assurance: Preventing Drug Residues

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Today's consumer expects each food product that is purchased to be safe, wholesome, high quality, and consistent. Consumers have various choices for protein sources in the marketplace today. In order to maintain consumer demand for beef, the industry has found it necessary to address and eliminate consistency and quality shortfalls.

One area of concern is drug residues. Violative drug residues are unacceptable levels [levels above tolerances set by the U.S. Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA)] of chemical remnants found in the edible tissues of carcasses at the time of slaughter. Persons administering animal health products are responsible for any drug residue problem found in edible tissues collected at slaughter.

In the 1994 Tissue Residue Annual Report, failure to adhere to approved withdrawal times was cited as being the primary cause of residue violations. Disregard of withdrawal times accounted for 43.4 percent of the cited drug residue violations. In addition to failure to adhere to approved withdrawal times, violative residues may result from the improper use of veterinary and animal health products (antibiotics, feed additives, implants, parasiticides, vaccines, anti-inflammatories, minerals, etc.), and the improper administration of these products. In the 2010 Residue Violation Report, the U.S. Department of Agriculture - Food Safety Inspection Service (USDA-FSIS) listed the following percentages of residue violations in various major classes of cattle: beef cows 0.11%; bob veal calves 0.48%; dairy cows 0.15%; bulls 0.07%; steers 0.06%; and heifers 0.00%.

In the 2007 National Market Cow and Bull Quality Audit (NMCBQA), during face-to-face interviews, beef packers cited antibiotic residues as one of the leading (ranked 4th out of 10) concerns facing the industry because of potential food safety implications. The beef industry's affiliated organizations were also quick to list antibiotic residues as a major concern facing the industry, even though the 2007 NMCBQA demonstrated a reduction in antibiotic residue concern compared to the 1999 NMCBQA where residues ranked second in the list of top 10 concerns. According to the audit, for every cow and bull that is marketed and slaughtered, the beef industry loses 92 cents for antibiotic residue handling and testing. The figure may seem modest, but it should be understood that it does not include the losses/costs associated with cuts and carcasses being trimmed and condemned as a result of violative residues.

Violative residues can result in economic losses to individual producers and to the beef industry as a whole. Drug residue problems may cause negative publicity for the beef industry and may undermine consumer confidence in beef when food safety and health issues arise. Following are a few management tips to help prevent violative drug residues, enhance beef quality, and maintain consumer demand for beef.

Read and Follow Drug Labels

Federally (FDA) approved animal health products are tested and have met stringent requirements. Testing regimes ensure that products consistently perform according to manufacturer claims and ensure that products will not harm animals when administered accord-