Livestock Antibiotics a Threat to Human Health?

By LINDSEY COBLENTS, Associate Editor

The debate over antibiotic use in livestock is escalating, and health agencies and animal producers are taking sides in what could be a blowout fight over quality meat and public safety.

In a congressional hearing July 14, representatives from the Food and Drug Administration, Department of Agriculture and the Center for Disease Control and Prevention told a House Energy and Commerce subcommittee they believed overuse of antibiotics in food-producing animals is leading to antibiotic-resistant bacteria that could threaten human health.

Various livestock production associations, including the National Pork Producers Council [1] (NPPC) disagree with this statement, saying that scientific evidence for the argument is lacking.

“In fact, CDC’s National Antimicrobial Resistance Monitoring System hasn’t shown patterns that would be expected if resistant bacteria were routinely being transferred from animals to humans,” says Howard Hill, DVM, a member of the NPPC board of directors. “An FDA risk assessment found the types of bacteria in humans and animals were different, meaning resistant bacteria in humans were not coming from animals.”

According to the NPPC, a study published in the Journal of Antimicrobial Chemotherapy *[2]* estimates 96 percent of antibiotic resistance occurs due to human antibiotic use. In 2006, the Institute of Food Technologists [3] reported that eliminating antibiotics from animals may do little to alleviate resistant bacteria in humans.

Nevertheless, recent recommendations [4] by the FDA regarding antibiotic use and the growing popularity of the Preservation of Antibiotics for Medical Treatment Act [5] (PAMTA), introduced in March 2009 by New York Rep. Louise Slaughter, are causing stress in the meat production community.

The main concern of the FDA seems to be unnecessary use of antibiotics in animals intended for food. Some are concerned antibiotics are being used too frequently simply to promote animal growth. There are various estimates as to how widespread this practice is. The Union of Concerned Scientists [6] (UCS) reported in 2001 that up to 70 percent of antibiotics were used solely to promote animal growth.

However, the NPPC says this data is skewed because there are no statistics on antibiotic use in humans included in the report, alleging the UCS includes in its report antibiotics never approved for use in the U.S. and antibiotics approved by the FDA but never used in food animals.

Hill said according to the Animal Health Institute [7], only about 5 percent of antibiotics in pork production are labeled as promoting growth, adding, “However, even the majority of those antibiotics are preventing a disease—thereby promoting growth.”

The FDA recommendations for antibiotic use in livestock say producers should only use antimicrobial drugs when necessary to ensure animal health under veterinary guidance. According to the NPPC, these recommendations are already in action.

“All antibiotics are used as part of a comprehensive herd health plan, which has been developed in consultation with a veterinarian,” said Hill. Not to mention that the antibiotics are already approved by the FDA before they are administered. “The antibiotics undergo a rigorous FDA approval process that includes determining their safety for animals, humans and the environment. They are used under the supervision of a veterinarian, and all have FDA-set withdrawal periods – the time between an animal’s last dose and when it goes to the processing plant.”

However, the NPPC is concerned about the future of antibiotic regulation. If the FDA were to propose a ruling that only allowed antibiotic administration with a veterinary feed directive, or prescription, Hill says a shortage of large animal veterinarians in the U.S. could affect the health of animals and the safety of our food.

Even scarier to the food-animal industry is the thought of an all out ban on preventative antibiotic use in animals, such as the one proposed in PAMTA. According to Rep. Slaughter’s website, PAMTA would phase out “non-therapeutic use” of antibiotics in livestock, as well as require tougher criteria in animal antimicrobial approval. The site also states that more than 300 organizations support similar legislation, a daunting opposition for food producers.

The industry is hoping to calm fears through its own initiatives. For example, U.S. pork producers are promoting the safe antibiotic use through their Pork Quality

Assurance Plus and Take Care: Use Antibiotics Responsibly programs. Both educate producers about antibiotic use.

While the debate rages on, Hill says food-animal producers will continue to maintain their position—for the benefit of the food industry and overall public health. “Antibiotics are used to keep animals healthy, and healthy animals mean safe food.”

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