Antibiotic Use in Food-Producing Animals

What We Know

• Present drug residue violations are estimated at <1% for pork.

• In Indiana we have about 80 violative milk tanker loads per year. There are approximately 2,500 Grade A dairy farms milking 2 or 3 times a day, 365 days per year.

• Institutional (as opposed to consumer/market) forces driving changes in the area of food safety are the USDA and the World Health organization (WHO).

• USDA required meat processors to implement Hazard Analysis and Critical Control Point (HAACP) regulations, beginning with the large packers in January 1998. HACCP regulations are a proactive means of assuring food safety regarding antibiotic residues.

• In 1997, WHO recommended that the use of antibiotics as growth promotants and treatments in food-producing animals be reduced to prevent development of antibiotic-resistant bacteria.

• Many scientists do not agree with the above recommendation by WHO, because there is no evidence that stopping antibiotic use in food animals would change the level of drug-resistant bacteria that could affect humans.

• Some strains of drug resistant E. coli, Campylobacter, and Salmonella can be transferred from animals to humans, but they do not always cause disease.

• Drug-resistant bacteria can come from plants and vegetables that have been treated with antibiotics.

• Controlled studies have demonstrated that drug resistance in bacteria develops regardless of antibiotic use.

What We Do Not Know

• We don’t know whether stopping antibiotic use in animals would slow the development of drug-resistant strains of bacteria.

• We don’t know the mechanisms causing drug resistance and cross resistance in bacteria.

• We don’t know whether bacteria from animals can persist long enough in humans to transfer drug resistance to human bacteria.
What We Are Doing

- We’re implementing disease prevention programs, such as age segregated rearing and early weaning technologies, to minimize the need for drug usage in swine.

- We’re using antibiotics to control specific diseases instead of blanket medicating large groups of animals, thereby minimizing antibiotic use on farms.

- We’re increasing on-farm testing to certify violative antibiotic residue-free meat and milk.

- We’re encouraging good kitchen hygiene to prevent food-borne illnesses.