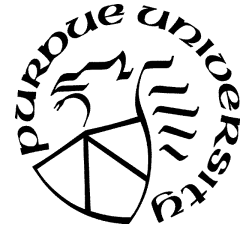


ANIMAL ISSUES



Briefing

Antibiotic Use in Food-Producing Animals

*Sandy Amass
Department of Veterinary
Clinical Sciences*

Purdue Extension
Knowledge to Go

1-888-EXT-INFO

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.