Sulfamethazine Residues in Hogs Dramatically Reduced After Team Effort by Veterinarians and Hog Producers

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The detection of residues of sulfamethazine in hogs has been dramatically reduced as a result of a team effort involving the veterinary profession and the hog producing industry, the American Veterinary Medical Association (AVMA) reported.

The dramatic drop in sulfamethazine residues came after the AVMA called for a temporary moratorium on use of the drug, a recommendation that was also made by the American Association of Swine Practitioners, the National Pork Producers Council, and the National Association of State Departments of Agriculture.

AVMA in concert with its constituent the American Association of Swine Practitioners encourages food animal practitioners, working with their hog producing clients, to provide assistance in planning and evaluating drug use programs and in testing for residues at the farm before animals are sent to market. Swine practitioners have been using a Sulfa on Site (SOS) test to assure the absence of sulfa residues in pigs.

Sulfamethazine residues in pork produce no known short-term effects in human beings except for people allergic to sulfa.

However, the U.S. Food and Drug Administration (FDA) started a review of the drug’s approval after preliminary animal studies suggested sulfamethazine may be carcinogenic in laboratory animals.

Sulfamethazine has proven harder than some medications to remove from livestock, because of cross-contamination of commercial and home-produced feeds and of the environment, explained James D. McKean, D.V.M., of Ames, IA, Vice President of the American Association of Swine Practitioners.

‘‘The compound is fairly stable, and because of the nature of the feed distribution system, carry over of about 1 percent is very hard to avoid. Yet even 1 percent can produce violative levels of residue,’’ Dr. McKean said. ‘‘In addition, it stays in the animal relatively longer than other medications, and pigs have urine drinking tendencies, which can extend the time of depletion,’’ he said.

‘‘Some producers believe they have no problem, because they don’t feed sulfamethazine,’’ Dr. McKean said, ‘‘but we have tested several such cases that turned out positive. A veterinarian can help the producer identify sources that contain sulfamethazine, eliminate contamination, and initiate a testing program to assure compliance.’’

Dr. McKean added that the veterinarian has four vital roles as a consultant to the producer on the administration of medication:

• Make the correct diagnosis, so the proper treatment can be initiated;
• Establish the proper dose, so that the animal responds to treatment;
• Be available for follow up;
• Assure that the animal is cleared of any antibiotic residues before going to market.

Glen F. Hoffsis, D.V.M., of Columbus, OH, chairman of a committee which advises the FDA on scientific and policy matters, said more animal drugs should require a veterinarian’s prescription for use. He said about 80 percent of drugs used with companion animals require a prescription, while 93 percent of drugs used with food producing animals are sold over the counter without a prescription.

A National Animal Health Monitoring Service survey in Iowa indicates producers who made use of a veterinarian in diagnostic treatment and prevention netted $1.55 more per hog than those who didn’t. A similar analysis of records of 45 producers in Indiana indicated a $1.30 per hog advantage to those who used a veterinary consultant.
While applauding the team effort that has now reduced sulfamethazine residues to 1 percent or less, Dr. Hoffsis stressed the need for continuing vigilance. "We are kind of holding our breath," he said, "hoping that some pork producers won't take the attitude that this is a short-term thing. We need to continue on site testing and keep looking for alternatives to sulfamethazine therapy." In the past, sulfamethazine residue levels have been reduced during times of intense scrutiny, only to creep back up later, especially during cold weather, when the drug is more likely to be used.

Dr. Hoffsis emphasized that testing for residues is only an adjunct to the drug residue program. The central theme for a drug residue program, according to the FDA, is the education of producers on proper drug utilization, along with veterinary control of drugs.