

Caution Must Follow Antibio

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by some in universities and human health advocate agencies, by the use of antibiotics in poultry, which already takes careful, scientifically approved measures to regulate these procedures?

Dr. Sherrill Davison, assistant professor in avian medicine and pathology at the University of Pennsylvania's New Bolton Center, spoke about these issues during the first of a two-day Penn State-sponsored Pennsylvania Poultry Sales and Service Conference.

Davison spoke Tuesday afternoon to more than 100 poultry producers and agri-industry representatives at the Holiday Inn in Grantville.

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Davison spoke about not only the controversy surrounding the issue of bacteria resistance but the fact that of what the poultry veterinarian can use, there is very little, she said.

The controversy, Davison noted, is: does antimicrobial use in food potentially affect human health? Do the resistant bacteria that can develop get into the human food chain?

According to the poultry veterinarian, advocates of the USDA/FDA-approved use of antimicrobials note there is "no scientific evidence" that the resistant bacteria show up in humans as a result of using antibiotics or antimicrobials in poultry.

However, she noted opponents of the use of antimicrobials in poultry can provide "lots of scientific evidence."

Part of the problem may be too many physicians, under pressure from their patients, don't judiciously prescribe antibiotics. Because the patients insist, doctors are forced to use antibiotics wrongly to treat viral infections. This "over-prescription" of antibiotics in humans could point to why bacteria are becoming more resistant.

Physicians need to educate people about the proper use of antibiotics, to treat bacterial, not viral, infections. Human health professionals must become more aware of this. Poultry health experts need to do a better job of convincing people of the need for antimicrobials and antibiotics in animals.

"What we need to do is preserve the antimicrobials we have," Davison said, before the pressure becomes too great from those who are uneducated about the benefits and wrongly convinced of their dangers. And she said we need to find ways to prevent the overuse of antibiotics in people. Also, antimicrobials in cats and dogs continues to be widely used, but little is known about how human health can be effected.

Antimicrobials have two uses in poultry and livestock in general:

- Subtherapeutic measures or as growth promoters. These are used in low levels to prevent disease while promoting an animal's growth.

- Therapeutic uses to treat current flock disease include the use of the antimicrobials at the appropriate dosage and in the correct time period.

Veterinarians need to make "judicious and prudent use of antimicrobials at the therapeutic level," said Davison.

To prevent disease and to allay the public's fears of the use of antimicrobials in poultry, the American Veterinarian Medicine Association and European Union have come up with the following guidelines:

- Disease prevention through a properly managed poultry hygiene and vaccination program.

- The development of a working veterinary/client relationship. Producers should consult with a flock health provider.

- "Know what we are treating for," said Davison. Often some veterinarians see an increase in mortality and are too quick to start antimicrobial use.

- If using antimicrobial, select a "narrow-spectrum" compound, not simply a "shotgun" type preparation that treats bacteria not present.

- Treat for the appropriate time period. Note withdrawal times. Consult with the producer to establish effectiveness of the recommended treatment.

Davison advocates the use of preventative measures such as overall poultry health to stop disease, rather than relying solely on therapeutic methods.

For poultry producers, it is important to follow quality assurance

programs, such as the Pennsylvania Egg Quality Assurance Program, and Hazard Analysis Critical Control Point (HACCP) programs already in processing plants to stem disease.

The industry as a whole does "follow good, preventative methods to decrease problems," Davison told those who attended the conference. But methods of preventing disease with other methods other than antimicrobials are necessary to secure their use at a future time. It has been suggested by some that, in the future, birds should be subject to the use of antibiotics on a tightly controlled, prescription-only basis.

Concern about resistance should be "everybody's responsibility," said Davison. "I think the poultry industry does a good job in preventative measures." And the industry as a whole must do a better job in educating the general public. Consumers need to prepare food properly, use antibiotics if prescribed for the right reasons, and "preserve

the usefulness of antimicrobials for the future," she said.

On Tuesday, a wide range of additional industry topics were also addressed.

Operations Research

More than ever, poultry producers are looking at ways to use a scientific approach to their management decisions.

Universities have a name for that discipline. It's called "operations research," in which the tenets of science and technology meet as a tool for producers to sharpen their feed formulations, hone amino acid prediction and disease diagnosis, and find ways to improve animal and facility efficiency.

In fact, according to Bill Roush, Penn State associate professor of poultry science, the tools of operations research have become so exciting to the industry that Penn State itself recently introduced a new animal science program which offers masters and doctorates in operations research.



Speakers at the Pennsylvania Poultry Sales and Service Conference from left, Rich Galutia, senior vice president; Bill Roush, Penn State associate professor of poultry science; and Mike H. H., Penn State swine specialist and program coordinator.

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