

Producers Can Go Pro To Keep Livestock Healthy

COLUMBUS, Ohio — Producers who want to keep their livestock free from disease, reduce antibiotic use, and lessen the likelihood of foodborne illness may want to try probiotics, said Teresa Morishita, an Ohio State University Extension veterinarian and associate professor in the Department of Veterinary Preventive Medicine.

Probiotics is a general term that refers to the natural bacteria normally found in the stomach or intestine of healthy animals. When an animal be-

comes sick, disease-causing bacteria called pathogens replace the normal bacteria, Morishita said.

"By treating animals with probiotics, the goal is to have normal bacteria colonizing all the intestinal sites within the animal, so bad bacteria can't attach and cause disease," she said. "This concept is called competitive exclusion."

Probiotics are most often used in animals just born or hatched. Young animals have no intestinal bacteria, so treating with

probiotics — the earlier the better — helps establish a good set of bacteria before pathogens arrive, Morishita said.

This treatment also is recommended during times of stress for the animal, such as during vaccination or after the outbreak of a disease.

"Probiotics are not a wonder drug. They are a preventive medicine step," Morishita said. "Disease can still occur despite their use, and if it does, an antibiotic would likely be needed to kill the pathogens. Then normal bacteria could be reestablished to reduce the possibility of future illnesses."

But the use of probiotics early

on should lessen the potential for invasion of harmful bacteria.

"It's always better to prevent disease before it occurs rather than wait to treat it once it arrives because with increased sickness comes mortality, and if an animal dies, whatever was spent to raise it to that point is lost," she said. "Sickness also can cause reduced feed efficiency and growth rate, resulting in a loss of economic value."

Taking steps to prevent disease using natural bacteria reduces the need for antibiotics. Fewer antibiotics decreases the potential for harmful bacteria to develop antibiotic resistance, Morishita said.

Probiotics also are being studied as a way to reduce the potential for foodborne illness in humans.

"The public concern over food safety has pushed more research into this area. The concept is that introducing more good bacteria will reduce the pathogens that cause foodborne illness, so when animals are slaughtered, the risk of carcass contamination is lowered," she said. "We're looking at the effect of probiotics on salmonella, E. coli and campylobacter right now."

Lactobacillus acidophilus is one type of bacterial normally found in the gut of animals. It gives off a substance that makes the stomach and intestines more acidic and less environmentally

friendly to pathogens.

The use of natural, nonharmful bacteria to prevent pathogens is not a new idea. The concept has been around for more than 30 years, but it has become more effective in recent years, Morishita said.

"The key is using specific bacteria isolated for use with specific species of animals," she said. "In the past, probiotic use had variable results because the host specificity had not been totally worked out yet. Now that it's been determined which bacteria work best for each type of animal, they are more effective, and probiotic use is picking up."


More stable forms of packing also have made probiotics more effective. They usually come in a freeze-dried form and are given to animals by either mixing them with water or incorporating them into feed, Morishita said.

The cost of probiotics is about the same as antibiotics and is not expensive. They cost less than a penny a bird for poultry producers, she said. Forms of the product are available for poultry, pigs, cattle, sheep and horses.

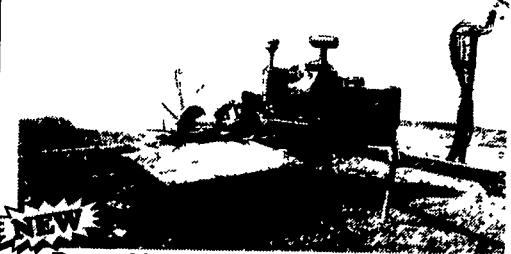
"Use of probiotics is not new or harmful," Morishita said. "It's nature's way of reducing pathogens, and we're just trying to help shift the scale."

For more information on probiotics, those interested can contact Morishita at (614) 292-9453.

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STEP 3 Graze or cut sorghum sudan at 24 in. (Approx. 40 days after seeding and every 30 days thereafter). **Warning:** never feed sorghum sudan when it's less than 18" tall.

STEP 4 About mid Sept. plow or disk in manure and plant a high quality Barenbrug Grass Legume Mix. Always take a soil test before new seeding.

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