Swine Management News

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Over the last few years, we've all become more aware of the impact our actions have on the environment. Recently, we celebrated the 20th anniversary of Earth Day. Perhaps some feel this celebration does not directly involve them. As a matter of fact, some may even question the importance of setting aside a day to celebrate Earth. For me, however, this day signifies an important change in the public's attitudes about our environment.

Farmers have always been stewards of the Earth. To assume, as some critics have, that farmers are part of the problem is ridiculous. This doesn't mean there isn't room for improvement, but the farming community does have a genuine concern for the environment.

As individuals, we can play a part in changing our actions which adversely affect our environment. We need to be even more aware of ways we, as individuals and as a concerned society, can reserve and conserve our natural resources.

We must also minimize the pollution we generate. We have to reduce the amount of trash we produce. Homeowners need to use fertilizers, pesticides, and household chemicals with care and dispose of waste automobile oil, paint, solvents, and other chemicals properly.

It may be harder for hog farmers to see where they can make a difference, but I like to cover a few areas I know we can improve. First we have to make a better effort to manage our manure resources. Hog manure has valuable nutrients in it that can be used to produce agricultural crops. In order to properly use these resources, manures should be tested to determine the quantity of nutrients it contains. Then manure can be applied at proper rates.

If we don't store and use these manures in the right way, excess nitrogen can leach through the soil and into the groundwater where it can contaminate our drinking water. Another possible problem with improperly applied manure is through surface water runoff. If this occurs, the nutrients in the manures can contaminate surface waters and result in algae blooms in lakes and ponds, which threatens aquatic life balances.

Water conservation requires our diligence as well. Leaky hog water bowls or nipples can cost you plenty. While it's hard to put a price on your well water, consider this. It takes electricity to pump that water up the well and into the hog house. That electricity comes from a generating plant which may use fossil fuels in the process. If so, a leaky waterer costs us not only the fossil fuel used to generate the electricity, but it also has a negative impact on the air quality, since the burning of fossil fuels pollutes our air.

Feed is a renewable resource that we rarely think of as a contaminant, but feed also contains nitrogen and should be conserved. It doesn't take much time to adjust your feeders to minimize feed waste. By avoiding waste, you also conserve your inputs in producing the grain that goes into the feed.

It may seem as though I'm making a big deal out of a little water and feed loss, but every individual action adds up. If we ignore these small problems, the total impact of our actions gets really big in a hurry. It's unfortunate that we've let some things in the environment deteriorate.

My father tells me stories about fishing and crabbing in the Delaware River, north of Wilmington, when he was a boy. Since that time, the Delaware River has gone down in quality and come back. Concern about the quality of the Chesapeake Bay is real, and a group of people is working for its cleanup.

We can no longer ignore the impact our actions have on the environment. I'm trying to do a better job around my own home, always keeping the environment in mind. You, too, need to keep the environment in mind when working around your farm and home.

Environmentalism is no longer a far-out, radical idea. The concern is real and the consquences, if we don't do anything, too awful to think about. The time has come for each and every one of us to take seriously our responsibility to the Earth around us. Our individual actions add up. Let's make our actions work for us and our planet.

Proteins Could Lead To Cattle Vaccine

WASHINGTON, D.C. — A malaria-like disease of cattle worldwide could be thwarted if a vaccine can be made from proteins discovered by U.S. Department of Agriculture and university researchers.

Their laboratory studies have identified several of the proteins of Babesia as promising candidates for making a vaccine, said Willard L. Goff of USDA's Agricultural Research Service. Babesia is a powerful protozoan microbe that causes cattle tick fever.

Even though there hasn't been a major outbreak of cattle tick fever in the continental U.S. since the 1940s, it remains a threat. No vaccine or drug for the disease (bovine babesiosis) is approved for use on livestock in this country, according to Goff.

But with further work, one or more of the proteins "might prove the ideal basis for a new vaccine to protect American cattle and herds overseas from the disease," said Goff, a microbiologist in Pullman, Washington.

He and ARS colleagues there and co-investigators at Washington State University, Pullman and the University of Florida, Gainesville, are cooperating in the studies.

A vaccine used in other countries contains a live but weak form of Babesia that has caused some injected animals to contract the disease. But injecting cattle with a protein-based vaccine "would boost protection," said Terry F. McElwain at Washington State University. "We want a vaccine that stimulates cattle antibodies not only to block the protozoan from entering red blood cells, but also to kill the microorganism."

Normally, the Babesia protozoan doesn't make enough proteins for scientists to study. But the Washington State University researchers cloned several genes into helpful bacteria that "act like tiny factories, churning out enough protein for us to study," Goff said.

Goff said the research findings also may help physicians studying malaria because of similarities between the two diseases.

Ticks can harbor the Babesia protozoan and transmit it when they bite cattle. Symptoms include loss of appetite, with a costly lack of weight gain and, in dairy cattle, a drop in milk production. "Babesiosis is not always fatal," he said, "but adult cattle are more likely to die from it than younger animals."

Babesia-carrying ticks in Mexico or the Caribbean increase risk of infestation on the U.S. mainland, where the disease could cost the cattle industry as much as $500 million a year, Goff said.

USDA's Animal and Plant Health Inspection Service closely monitors shipment of cattle across the U.S.-Mexico border to prevent tick invasions. Ranchers in a buffer zone north of the border routinely immerse their herds in a tick-killing chemical.

Goff said the researchers also are working on two types of new biochemical probes that veterinarians or ranchers might use one day to diagnose the disease. One probe, called a monoclonal antibody, seeks and binds to specific Babesia proteins inside samples of cattle blood or tick tissue. Another probe finds the protozoan's genetic material, or DNA, in tick or cattle specimens.

"Either probe," said Goff, "might someday replace today's techniques, which don't work well enough if the tick or cow has only a very low-level infection."

Cattle are susceptible to four species of Babesia. Other species infect cats, dogs, horses, sheep, and other mammals including, rarely, humans.

Lamb Carcass Evaluation Set

DOYLESTOWN (Bucks Co.)— The 1990 Lamb Carcass Evaluation will be held June 19 and 21, 1990. This event is sponsored by the Wool Pool, Delaware Valley College, and Penn State Extension.

Whether you are a newcomer to the sheep business or a seasoned veteran, you can learn a great deal by putting a lamb in this evaluation. Lambs will be evaluated "on foot" on Tuesday, June 19 and then slaughtered and their carcasses will be evaluated on Thursday, June 21. You will be given the opportunity to judge all lambs on foot, and then compare your placings to how the lambs fair "on the rail."

On Foot will be held on Tuesday, June 19, 6:30 p.m. at the Delaware Valley College Livestock Farm. On Rail will be Thursday, June 21 at 7:00 p.m. at Gehman's Meats in Morwood.

Lamb evaluation rules include:

- There is a limit of three entries per farm.
- We will need at least 15 lambs entered to hold this event. A maximum of 25 lambs will be accepted.
- Ewe, ram, and wether lambs will be accepted.
- Minimum weight of lambs will be 80 pounds.
- There will be three classes: light, medium and heavyweight. Classes will be established at weigh-in.
- Lambs will be judged on foot and then slaughtered and evaluated for back fat thickness, loin eye area, overall carcass quality, and other important carcass and growth traits. You will receive a computer printout of all lambs' carcass data.
- Slaughter charge is $10 per lamb.
- Each exhibitor will have the option of (1) taking the whole carcass home or (2) having it processed at Gehman's at a cost of $.35/pound of carcass.
- Ribbons will be awarded in each class; a plaque will be awarded to the champion carcass.

Angus Re-Elects Considine

ST. JOSEPH, Mo.— Members of the Maryland Angus Association met in Hagerstown, MD, for their annual meeting and re-elected Judith Considine, Middletown, MD, as president for the coming year.

Other officers re-elected include Dr. Lee Leak, Dickerson, vice president, and Sam Riggs, Olney, treasurer. Ned Sayre, Churchville, completes the officer team as the new secretary.

Members voted in the following directors to a three-year term on the board: Dan Davis, New Windsor; Emmett Full, Mt. Airy; Darrell Johnson, Mt. Airy; Bob Kegal, Union Bridge; and Sherri Smith, West Friendship.

The Maryland Junior Angus Association also met and elected new leaders. Troy Eyler, Thurmont, will serve as president; Heather Hamm, Clarksburg, vice president; Angie Johnson, Mt. Airy, secretary; Tim Clark, Mt. Airy, treasurer; and Chris Mullinix, Woodbine, as historian.

There were several awards presented to Maryland Angus members during the annual meeting. The 1989 Maryland Angus Family Award was presented to the David Brauning Family, Finksburg. Dr. Lee Leak received the 1989 Maryland Angus Breeder Award.

Heather Hamm will reign as the 1990 Maryland Angus Queen and Angie Johnson will serve as princess.

The state's annual field day will be held at McGill Creek Farm, Earleville, on July 14.

David Kradel Herbert Jordan Milton Madison

Penn State
Poultry Pointers

John Schwartz Forest Muir

Herbert Siegel Donald Singletary Morris Mast

STAND UP AND BE COUNTED

Robert Rugaber
Department of Poultry Science

Poultry and other livestock producers need to stand up and declare their dedication to animal welfare.

It is a matter of record that many of America's poultry and livestock farmers are world leaders when it comes to promoting the comfort of their animals. They are, for the most part, the epitome of an animal welfarist.

Scientific research and just good common sense have taught us that chickens that are sick, malnourished, uncomfortable, or otherwise abused are just not profitable. So it stands to reason that the successful poultry producer is often one who pays the greatest attention to the birds' welfare.

Today's poultry industry is now the most scientific in animal agriculture. Modern "hen houses" are designed to meet the bird's every need. No more freezing in winter and roasting during the summer. No longer do chickens stand in their own droppings.

The environment of the modern, well managed, cage layer house is carefully monitored 24 hours per day. Dust, heat, and stale air are removed and fresh air is brought in so that the birds are comfortable year-round. Carefully balanced feed rations are kept before hens at all times and fresh water is always available.

In the "good old days," chickens wandered around the barnyard scratching for grain that had passed previously through the digestive system of another animal. Pullets and meat birds were grown on free range — they had to be, because we didn't know how to care for them any other way. Were the birds happier? Well, up to half of them were lost to predators such as hawks, owls, foxes, skunks, raccoons, stray dogs, or even the house cat.

Being snatched unceremoniously off one's perch in the dark, then torn apart while still alive doesn't really sound like fun. Then there were the lice, mites, and intestinal worms.

At that time, poultry medicine was in its infancy. Marek's, a cancer-type disease of chickens, and coccidiosis, a killer of young birds, raged out of control. Livability was low. Since then, research, improved management methods, new medication, and a vaccination for Marek's have brought these conditions under control.

I don't want to be liberated back to living in a cave and I doubt that the chicken does either.

Hens housed in cages are a favorite target of the radical animal welfarist. But let's take a look at the real situation. Properly managed layers appear to be happy creatures. Just step into their house and listen to them "sing." It's almost deafing! Laying hens in cages will attain a peak production of well over 90 percent and hold high levels for many months — certainly better than hens handled in the manner some would have us return to.

Does this sound cruel? Today's chicken has a diet far superior to most of the world's human population. She almost never goes hungry or thirsty; hen housing is state of the art; and she is protected from parasites, disease, and her enemies. Livability is high, there is little air pollution, and she is among her friends.