Iowa research discussed at pseudrabies meeting

BY JACK HUBLEY

LANCASTER — About 50 pork industry representatives gathered at Lancaster's Farm and Home Center on Friday, Dec. 14, for a head-butting session on pseudorabies, the disease currently responsible for the quarantine of about 34 of the state's 1,450 swine producing farms.

The program's special guest was Dr. G.W. Beran, an Iowa State University, veterinarian who reported the latest findings in an on-going pseudorabies pilot control project involving a voluntary group of 210 Marshall County, Iowa, swine producers.

Leading off the program was Penn State Extension veterinarian, Dr. Larry Hutchinson, who gave a brief overview of the disease and its history in Pennsylvania.

Hutchinson pointed out that although the viral disease can affect other livestock as well as dogs, cats and wildlife, hogs are the major carriers of pseudorabies. And because of a wide range of symptoms, PRV can be a particularly difficult disease to detect and diagnose. Symptoms may range from no evident outward signs to abortion, scours, vomiting, tremors, fever and loss of appetite. Some herds may, in fact, test positive for PRV while experiencing no increase in death loss, Hutchinson said.

Pennsylvania first began experiencing PRV problems in the early 1980's, when a number of herds became infected in northeastern Lancaster County. A total of about 80 herds have been quarantined in the last four years, Hutchinson said, with most of the problem confined to Lancaster County, the state's leading hogproducing county.

Iowa, on the other hand, has been fighting a running battle with pseudorables virus for the past decade.

"We've talked about getting rid of pseudorabies for 10 years," Dr. Beran said, "but it's really only since last year that we've undertaken this pilot project."

The project referred to by the veterinarian involves the voluntary participation of all but one of Marshall County's swine producers. Of the 211 herds involved in the test, 33 were found to be infected, with the remaining disease-free herds divided into high-risk and low-risk farms, depending on their proximity to infected herds, as well as a number of other criteria. Uninfected highrisk herds were monitored every six months, with low-risk herds being monitored every nine months.

Veterinarians then worked with owners of infected herds to choose and implement one of three eradication plans.

-- Plan 3A, Depopulation-Repopulation: Under this plan, all hogs on the entire farm are removed, with sows being sold as their pigs are weaned, and growers being removed as they reach market weight. Equipment is cleaned and disinfected, and manure pits are emptied and disinfected. Five of the 33 farms elected to go this route.

- Plan 3B, Test and Remove Seropositive Pigs: The herd is tested and all positive animals are removed immediately. Testing and removal continues every 30 days until all infected animals are gone. This plan is considered if the infected portion of the herd does not exceed 20 percent. Four farms opted for this plan,

- Plan 3C, Controlled Vaccination and Offspring Segregation: Breeding stock is vaccinated prior to farrowing, transferring immunity to baby pigs. Pigs are weaned early and two-times the number of replacement gilts that the farmer deems necessary are selected for segregation from the rest of the herd. These progeny gilts are taken to a facility as far away from the herd as possible, and a special change of clothes and boots are maintained to work with these pigs. The gilts are tested at six months of age. Twenty-four farms were enrolled in this plan.

Now 15 months old, the overall project has resulted in 11 farms being classified as free of PRV, with six other farms awaiting their final tests.

"So far we have a perfect track record," said Dr. Beran, noting that no Iowa herd has become reinfected since cleanup.

A show of hands following the researcher's presentation revealed that the majority of producers in attendance would favor an eradication program similar to Iowa's if certain conditions could be met.

It was generally agreed that the program must be totally voluntary, and would have to involve nearly 100 percent cooperation from producers within the study area.

It was also determined that some type of professional assistance would be necessary to aid farmers in choosing the plan best suited to their operations. Cooperative Extension, University of Pennsylvania and Bureau of Animal Industry veterinarians were all cited as possible sources for technical assistance, although some dissatisfaction was expressed with the past performance of Bureau officials when dealing with the pseudorabies problem.

Although producers expressed interest in a vaccination-offspring segregation program, vaccines are prohibited in Pennsylvania because of their potential for masking real disease.

Dr. Beran noted that two alternatives to the use of "live" vaccine can provide solutions to the vaccine dilemma. First is the use of "killed" vacciné, which reduces the risk of secondary health problems such as arthritis, rhinitis and chronic pneumonia, sometimes encountered following the use of the live product.

"We've had no problems with the killed product," said Dr. Beran, pointing out that killed vaccine is currently in use in the Iowa study.

He also stated that a third product called "subunit" vaccine

requires a certificate stating that all pigs are free of clinical signs of the disease, but producers pointed out that clinical evidence may, in fact, not be present in infected animals.

"The feeder pig people can do almost anything they want, and the ones with purebreds have all the regulations," said producer Larry Baum, pointing to the blood testing and permit procedures required for the movement of breeding stock.

Dr. Beran noted that a blood testing procedure could be implemented for feeder pigs coming into the state, but he cautioned that if pigs were to be tested at their point of assembly within the state, "at least 50 percent" of these animals from different points of origin would have to be tested to provide meaningful results. On the other hand, testing at the point of origin would require a smaller sample in the neighborhood of five to 10 percent, he said.

Dr. Beran pointed out that, although PRV can be spread in a variety of ways, the major vehicle for the virus is direct breath-tobreath spread. If the virus is present, any form of stress will trigger shedding, and the movement of a pig onto a farm definitely qualifies as stress, the veterinarian said.

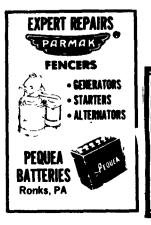
Other havens for the virus include straw, where it can survive for about a week at room temperature, and shelled corn and milled feed, where PRV can easily remain alive for a month, according to Beran.

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Iowa State University veterinarian, Dr. G.W. Beran, outlined his state's pilot pseudorabies control program at a Pa. pork industry meeting in Lancaster on Dec. 14.





will probably be available within a year, and will undoubtedly be an improvement upon vaccines currently available.

Producers also felt that regulations governing the marketing and movement of feeder pigs would have to drafted for any eradication program to be successful. The state currently



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