Swine AI, If Used Correctly, Can Mean Vast Savings

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LAMPETER (Lancaster Co.)

— Heat detection and timing are crucial when using artificial insemination (AI) on sows or gilts, according to several swine experts.

In fact, given experience and the right genetics from a reputable firm, producers can experience enormous cost savings on boars and feed in the long run, according to David J. E. Hosterman, assistant swine herd manager at Penn State.

Hosterman spoke to about 25 swine producers and related agriindustry representatives on Thursday at the Lampeter Fairgrounds.

The seminar included information on making use of AI in the herd by Kenneth B. Kephart, associate professor of animal science at Penn State, and a video showing how AI is used, produced by the National Pork Producers Council.

For swine farmers who want to improve their herd genetics using AI, producers must be wary of where they purchase their semen.

"I would use a reputable firm, a big firm, a firm that makes their living from semen," said Hosterman.

On the Penn State herd he manages, which includes 50 sows, AI has been used the last 14 years. The herd began with about \$50 worth of semen from a stud service and was built up from boars sired at the farm.

After trying a dozen different firms, Penn State settled on semen from a stud service in Manchester, Ohio.

Selecting the proper firm is important, and should include a compete catalog listing of expected prodegy differences (EPDs) with special emphasis on maternal index and terminal index of each boar. This index helps determine the size and weight of the litter. The EPDs indicate how the boar's genetics will differ from the norm of the breed, and could be used as a tool to meet the herd's genetic goals.

With experience, producers should be able to realize that by using AI, "you can do it just as good as a boar can, and probably better," said Hosterman.

After a while, the experience will help with the complete insemination procedure. There are certain elements about the sow's behavior at heat detection and during the AI procedure that can be learned to speed up the process.

Each service can take up to 5 minutes, but most could be done in half that time.

A vital element is keeping careful records of heat. The easy part is application of AI. The hard part, according to the herd manager, is heat detection.

For that reason, Penn State uses

a scoring chart which ranks individual sows according to how close to ovulation they are. Four days after weaning, in the morning, records are kept on a chart to indicate how close to service each one is. Each sow is identified by the letters A, for standing heat, ready to breed; B, close to standing heat, tomorrow; C, shows no signs of heat; or D, shows no signs.

Hosterman said by using the chart, even the "shy, timid sow" in the corner of the pen will be scored. And, when ready to service, have a boar standing by outside the pen, because the boar "will tell you more than you can tell yourself," said Hosterman.

With AI, the litter size has shown a quite significant improvement, according to the herd manager. Hosterman spoke of one swine producer who went from using 65 boars to five by collecting semen from the best individual boars. The savings on feed were tremendous.

According to Kenneth Kephart, associate professor of animal science at Penn State, each dose from a stud firm can range from \$20-\$80, and most cost about \$25-\$50. To obtain maximum benefits and greatest chance for insemination to occur, dosage should range from 50-250 milliliters (100 ml about the norm), with a minimum sperm count of about 2-4 billion. Semen appearance should be creamy (opaque) and should be ready to use at about room temperature.

For producers who want to collect and store boar sperm, there are special considerations, including a storage box and other items necessary.

When using semen, producers should keep in mind that many things can damage the material, including use of latex gloves, water, sunlight, sudden temperature change, soaps, alcohol, and petroleum jelly. Insemination rods can be costly in terms of all the procedures you need to follow in order to reuse them.

For that reason, Hosterman and others make use of a disposable breeding spirette that costs about 45 cents a piece.

For maximum sperm life at service, Kephart said it is important to "get the sperm there before the eggs."

Producers should approach AI slowly, and start after the gilts have been serviced once naturally.

Afterward, Kephart collected semen from a boar that was to be sent to slaughter after it was used only for AI collection. The boar never serviced a sow naturally.

Procedures for semen collection and using AI were detailed from a variety of sources, most notably the "Swine AI Book" compiled by North Carolina State University, and an "Artificial Insemination For Swine" fact sheet compiled by Kephart.

In the end, using AI can save producers "a pile of money," said Kephart. "A lot of things take a lot of attention, however. But I am amazed at how many producers are doing just that."



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PSU - Scoring Chart

DATE	Nov	10	11	12	13	14	15	16	17	18	
Weaned 1	1/6										
	27-3										
	16-1										
	20-1										1
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- A. Ready to breed, in standing heat.
- B. Close to standing heat, tomorrow.
- C. Shows signs of heat.
- D. Shows no signs.



Hosterman and others make use of a disposable breeding spirette that costs about 45 cents a piece. Here, he holds a special foam-tipped spirette used during the demonstration Thursday.



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PA Farm Bureau Sets Annual Meeting

CAMP HILL (Cumberland Co.)
— The 44th Annual Meeting of the Pennsylvania Farm Bureau will take place Nov. 14-16 at the Hershey Lodge and Convention Center, Hershey. The presentation of awards, election of officers and setting of policies on issues affecting agriculture will highlight the three-day meeting.

Several hundred farmers, including 169 Voting Delegates. will gather to chart the future course of the organization. PFB is a voluntary, statewide farm organization which provides information, business services and a voice in public affairs to 26,167 member families. It is affiliated with the nation's largest farm group, the 4.2-million member American Farm Bureau Federation.

Harrisburg Mayor Stephen Reed will be the guest speaker at the Annual Meeting Opening Luncheon on Monday, Nov. 14. PFB President Keith Eckel will present the President's Annual Address to the convention on Tuesday, Nov. 15.

PFB Voting Delegates will be considering about 130 policy resolutions during the Annual Meeting which originated through grassroots input on farm issues from PFB's 54 county farm bureaus. Policy resolutions will focus on issues such as the 1995 farm bill, dairy programs, farm safety, environmental concerns, water use and local tax reform. Delegates will also be electing the organization's President and State Board Members representing eight of PFB's 16 districts.

In addition to business, PFB will present a number of awards during the Annual Meeting. The Outstanding Young Farmer Award will be presented to a farm couple who have demonstrated outstanding business skills and leadership before reaching age 30. PFB will recognize a person or persons who have made a significant contribution for the betterment of Pennsylvania agriculture with its Distinguished Service to Agriculture Award. The top county in farm bureau program achievements will be honored with the All Star

The PFB Annual Meeting will conclude Wednesday. Nov 16 with the election of officers and final adoption of policies for the organization.

CORRECTIONS

The caption of a photograph of the 1994 state dairy bowl team erroneously identified member Jeff Hostetter as Justin Troutman. In addition to Hostetter, other team members include Karen Lentz, Jennifer Bashore, and Steve Bollinger.

Also in a recent report on the Frederick County Maryland youth sale, the price for the grand champion market sheep was reported as a "record setting" \$30 per pound. Actually the price was the highest price paid that evening, but in a previous year, a market sheep had sold for more than this price.

Penn State uses this scoring chart to determine exactly when individual sows come to standing heat.