

# Studies probe ways to schedule sow farrowing

NEWARK, Del — If swine producers could schedule their sows to farrow during regular working hours, they'd make better use of their labor force and also increase pig survival rates. Research has shown that by having someone on hand to assist a sow when she farrows, it's possible to get at least one extra live pig per litter. Sows often give birth at night, making it inconvenient to provide this help.

Dr. Paul Meckley, a specialist in animal reproductive physiology at the University of Delaware Agricultural Experiment Station, has been working on a project aimed at scheduling farrowings by treating sows with hormones which either delay or stimulate the onset of parturition.

The two-year cooperative study was funded in part by a U.S. Department of Agriculture integrated reproductive management grant to the University of Delaware Agricultural Experiment Station and the USDA Animal Reproductive Laboratory at Beltsville, MD. Two Beltsville researchers, H.D. Guthrie and V.G. Pursel, were involved in the project. (Guthrie recently reported on their work at the 10th International Congress on Animal Reproduction and Artificial Insemination at the University of Illinois, Urbana.)

In trials at the University of Delaware swine unit near Georgetown, sows near the end of their pregnancies were injected with either Lutalyse (a prostaglandin compound which

induces farrowing within approximately 26 hours) or Regimate (altrenogest, a progesterone-like compound which delays labor) in order to schedule farrowings during normal workday hours.

For example, if a sow were due to farrow Friday or Saturday, by giving her a shot of Lutalyse on Wednesday morning, she would likely farrow some time the next day. If an animal were due to farrow on a Sunday, feeding her Regimate the previous Friday through Sunday would delay parturition until Monday or Tuesday.

"To delay farrowing, we looked at the effects of Regimate withdrawal alone and withdrawal plus a shot of prostaglandin the following day to synchronize parturition," Meckley said. "With Regimate alone you can't be sure exactly when the sow will farrow. Delaying parturition too long increases the number of stillbirths, but with a one or two-day delay within a normal 114-day pregnancy period we found no difference in the number of pigs born, the number born alive or the number weaned."

"We've done this as often as three successive breedings with no observable effect on sows," he said.

Regimate currently is used to synchronize estrus in cattle, but the scientist stressed that the compound has not yet been approved for use on swine, so he can't recommend using it on sows at this point. Lutalyse is used on both cattle and horses—especially with embryo transfers. This compound

is in the process of being cleared for swine.

The study involved a total of 131 sows and gilts divided into four groups: (1) control (no treatment); (2) Lutalyse only; (3) Regimate fed for three consecutive days; and (4) Regimate for three days followed by a shot of Lutalyse at 10 a.m. the day after the last Regimate feeding.

"Our findings definitely showed that prostaglandin can be used to synchronize parturition at least to the point where there's a good chance of having daytime rather than night farrowings," Meckley said. "Seventy-six percent of the treated sows farrowed within a 12-hour interval on the day after injection." Sows were treated on days 111, 112 or 113 of pregnancy.

Meckley said studies are continuing to more precisely control the time of farrowing, using other hormones such as Oxytocin and Relaxin. The purpose of this research is to help swine producers fine-tune farrowing for more efficient labor use. The scientists are trying to keep treatment costs within \$3 to \$4 per sow to make them economically feasible.



# Berks Co. offers seminars

LEESPORT — A series of poultry meetings designed to assist owners of small flocks will be cosponsored by the Berks County Extension and Berks Poultry Fanciers beginning Oct. 4. No reservations or fees are required to attend, and all four sessions will be held in the same locations.

To reach the Ag Center, travel north on Route 183 past the Reading Airport. Turn left at the

first traffic light onto Upper Van Reed Road. Go 100 yards and bear right at the "Y." The Center is located on the left. For more information call: 215-378-1327.

The Berks-Lehigh Valley Farm Credit Service Building is located on Route 100, Fogelsville, just south of Route 22. For information call: 215-820-3085.

Following is a session schedule:

### SESSION 1

TOPIC: "GENERAL NUTRITION & WASTE MANAGEMENT"  
SPEAKER: Herb Jordan, Penn State Extension Poultry Specialist

TIME: 7:30 P.M.

DATE: October 1, 1984

PLACE: Berks County Agriculture Center.

DATE: October 3, 1984

PLACE: Berks-Lehigh Valley Farm Credit Service Bldg. (basement)

### SESSION 2

TOPIC: "MARKETING & PRODUCTION ECONOMICS"

SPEAKER: Dr. Paul Aho, Penn State Extension Poultry Specialist.

TIME: 7:30 P.M.

DATE: November 5, 1984

PLACE: Berks County Agriculture Center

DATE: November 6, 1984

PLACE: Berks-Lehigh Valley Farm Credit Service Bldg. (basement)

### SESSION 3

TOPIC: "HOUSING & BREED SELECTION"

SPEAKER: Dr. Forest Muir, Penn State Extension Poultry Specialist

TIME: 7:30 P.M.

DATE: December 3, 1984

PLACE: Berks County Agriculture Center

DATE: December 4, 1984

PLACE: Berks-Lehigh Valley Farm Credit Service Bldg. (basement)

### SESSION 4

TOPIC: "POULTRY ECTO-PARASITE CONTROL"

SPEAKER: Dr. Clarence Collison, Penn State Extension Entomologist

TIME: 7:30 P.M.

DATE: January 7, 1985

PLACE: Berks County Agriculture Center

DATE: January 8, 1985

PLACE: Berks-Lehigh Valley Farm Credit Service Bldg. (basement)

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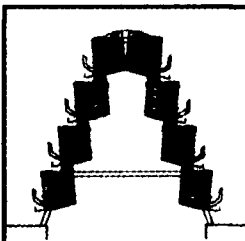
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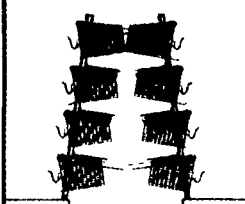
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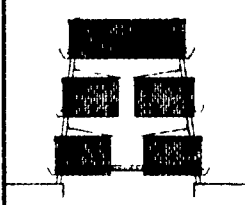
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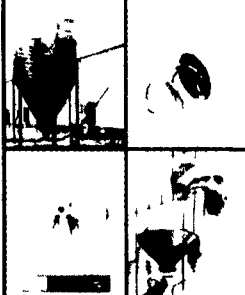
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