

## Hog producers get advice on managing females

BY LAUREL SCHAEFFER  
Staff Correspondent  
LANCASTER

— "Replacement gilts should be selected at birth," was advice given by John Hurtgen to hog producers attending the second annual Keystone Pork Congress last week.

Hurtgen, a University of Pennsylvania veterinarian discussed managing replacement gilts. Consideration to the size of the dam's litter and to the gilt's litter mates is important, the veterinarian told the hog producers.

Litter weights at birth and weaning indicate the milk production of a dam he explained. Littermates to

replacement gilts should have good traits also.

Hurtgen advised checking for soundness at birth, weaning and at six months of age. Chronic disease carriers should be eliminated.

The breed and sire of the gilts are also considerations of importance, said the veterinarian.

And, there should be at least three and preferably four mammary glands in front of the naval on replacement gilts, Hurtgen advised. "These are the milk producers," he explained.

Waiting to select replacements when the rest go to market is not a good time, the producers were

told. In many instances knowledge of the gilt's dam and sire is no longer available, and if not ear-notched, littermates also will not be known.

After selection, getting the females bred may also be a problem. The larger the operation, the more of a problem this may become.

Very few herds average twenty pigs per sow per year, Hurtgen said, but thirty per sow per year should be a producers goal! Superior sows can do this," he stated.

Another goal should be having your gilts farrow at one year of age, Hurtgen told the producers. To do this, gilts should reach puberty at eight months of age and be bred on their third heat period.

Ovulation rate, litter size, and fertility increase from the first heat to the third, he explained but there is no significant increase past the third heat period.

Influences on puberty include the breed of hog and crossbreeding, boar exposure, season, group size, nutrition and stress.

Landrace are usually first to cycle, Hurtgen explained, and other white breeds usually cycle before the darker hogs. By crossbreeding, gilts tend to reach puberty two weeks earlier than purebreds and usually have better records all over.

"After genetics, boar exposure probably plays the most important factor in puberty onset," the veterinarian continued, "and it's probably not the smell. Ample and close exposure are a strong stimulus."

In the past few years tests are showing that there is a strong seasonal influence on puberty, and overall fertility. A two week delay on puberty onset is expected in summer.

Also, the larger the group of gilts, the later puberty tends to be. Grouping gilts in lots of six to eight seems to be the best number.

All hogs should always have a balanced ration, Hurtgen emphasized as he discussed nutritional influences on replacement gilts. And as a final com-

ment, the veterinarian said stress delays puberty. "It does not onset heat as once thought," he added.

Getting gilts bred may depend a lot on the boars being used. Boars vary greatly in libido and breeding efficiency. Some tend to be better heat detectors while others are more efficient in breeding, Hurtgen explained.

Fertility also decreases about 15 percent in summer months and evaporative cooling does not seem to offset the drop. In some instances summer also increases the incidence of delayed returns to heat, extending some heat cycles to 25 to 35 days.

Hurtgen explained that studies have shown that breeding females twice in a heat period increases conception rates 25 per cent in sows and 10 per cent in gilts. By rotating boars as opposed to using the same one on both matings, conception rates increase about another 3 per cent.

He advised the producers to avoid mixing gilts with sows and regrouping once they are bred, especially between the fifth and eighteenth day of pregnancy since this is the most sensitive period. Also advised was testing for pregnancy between 30 and 37 days after breeding, and keeping gilts as well as sows comfortable.

Hurtgen also told the producers to cull gilts not showing heat by eight months of age and to cull repeat breeders after the second mating.

## Workshop to teach solar heater construction

MARLIN — A two-day Solar Workshop to be held at the South Vocational Technical School in Marlin on April 26 and 27 will offer residents in Schuylkill County a chance to build or learn how to build a Solar Water Heater.

This hands-on, construction workshop is designed to answer many questions regarding solar water heaters.

For those with limited time, tools, and skills, classroom sessions will provide helpful information which can be used when choosing between factory-built systems.

For those wanting to build their own systems, the construction phases of the workshop will allow you to build, step-by-step with expert guidance, the collector and storage tank for a drainback, freeze-proof system.

The instructor will be

### Heritage crafts workshops offered

WEST CHESTER — The Chester County Cooperative Extension Service of the Pennsylvania State University is offering classes in Quilting for the beginner.

The course will be held on Tuesdays, March 4, 11, 18, 25, from 9:30-11:30 a.m. The series of four meetings will cover basic techniques for hand-quilting. The instruction will include making a pattern, use of applique and patchwork, and creating a pillow top. Instruction on how to make a quilting frame will be demonstrated Mrs. Doris Hoag will be the instructor. Registration is needed by Monday, February 25, 1980.

The classes will be held at the Extension office meeting room, 235 W Market Street, West Chester. There is a small fee for the course. For further information call (717) 696-3500 or write to the Chester County Extension Service 235 W Market Street, West Chester, PA 19380

Christopher Fried, a mechanical engineer with five years experience in the field of solar energy. Fried has designed and built solar water heaters, solar space heating systems, solar greenhouses and solar homes.

Since early 1979 Fried has held solar workshops throughout Pennsylvania. The Schuylkill County Extension Service is organizing this workshop in cooperation with Fried.

The cost to attend the workshop will be \$25 which will help defray the cost of a construction and installation manual and the instructor's fee. A \$10 rebate is possible if the maximum number of 50 participants is reached.

A maximum of three water heaters will be built during the workshop. The cost per system is approximately \$550.

If you would like your system built at the workshop or you would like more information, call the Extension Office at 717/385-3431.

Craig R. Morgan, 4-H and Community Resource Development Agent, is in charge of the arrangements.

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## THE SECOND SEMINAR

# "GASOHOL FOR THE FARM"

### F. Horst & R. Kreider

**Seminar Purpose.** To give basic, practical training in the design, construction and operation of small alcohol plants

**Date:** Monday, March 17, 1980  
**Place:** Richland Banquet Hall, Richland, PA

**Experience:** We have spent considerable time and money in the design, building, and testing of farm size, ethanol fuel producing equipment. Through this effort, we have gained valuable practical experience in the field.

**Course Description:** This basic course will give those attending a practical understanding of alcohol production. The fee for this seminar will include the essential test equipment, enzymes and yeast needed to produce alcohol. A light lunch will also be provided.

### TENTATIVE SCHEDULE

8 00-9 00 a m	Registration	1 00 p m	Fermentation & Testing
8 30	Introduction	1 20	Building of Fermentation Equipment
9 00	License & Permits		Distillation & Testing Procedures
9 30	Enzymes used to convert starch to sugar & Testing Procedures	1 40	Break
	Break	2 30	Heat Efficiencies
10 15	Building of grain bins	2 45	Uses
10 30	augers, cookers, and enzyme tanks	3 15	Questions & Answers
	Questions & Answers	3 40	Break
11 30	Lunch	4 20	Tour of Famous Alcohol Plant
12 00		4 30	

**Equipment Handout will include:**

Alcometer with Test Jar (0-200 Proof)	3 Scale Hydrometer
Dairy Floating Thermometer	Ph Paper
Starch Conversion Kit	Hydrolyzing Enzyme
Saccharifying Enzyme	Yeast

**Fee:** \$100.00 Per Person, includes 1 set of Test Equipment.  
\$160.00 For Two (2) Persons, includes only 1 set of Test Equipment.  
Fee for registration must be received by March 10, 1980.  
Class size will be limited; the seminar for February 1, 1980 was filled.

A confirmation, along with directions, will be mailed on March 11, 1980, or check will be returned.

I wish to attend your seminar \_\_\_\_\_ (Date)

Enclosed you will find a check of \_\_\_\_\_ for \_\_\_\_\_ person(s) attending.

The person(s) attending are:

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