

# Swine Producers

(Continued from Page A1)

barns, the manure pit is divided into sections, lengthwise. Since the hogs tend to deposit about two-thirds of their manure in the center section, the outside pits fill much more slowly with fresh manure. Manure will be pumped from the central area to the digester, and eventually returned for storage in the pits along the edge.

That system should eliminate the need for a one-million gallon outside manure holding tank, according to Caressa Crone.

But that's just one benefit the Crones hope to gain from the new setup.

They expect manure odors to be reduced by about 90 percent, and for most of the facilities' electrical needs to be supplied by the biogas-run generator.

The digester itself consists of a circular, concrete tank, 12 feet deep and 42 feet across, where manure will stay for about a month during the digestion process. Biogas will be collected in an inflatable bag directly above the digester and burned in a 350 cubic-inch Chevrolet engine to generate electricity.

The digester tank is divided into two sections. In the first, a "complete mix digestion" takes place, at a temperature of about 100 degrees Fahrenheit. Manure flows into the second section of the tank via a spillway. From this chamber, manure is pumped to the pits for storage.

Digester construction began this fall. The Crones expect to

start the digestion process next spring when the weather warms up, according to Stanley Crone. Some heat may need to be added to start the digestion, but once it is operating, the process will generate its own heat.

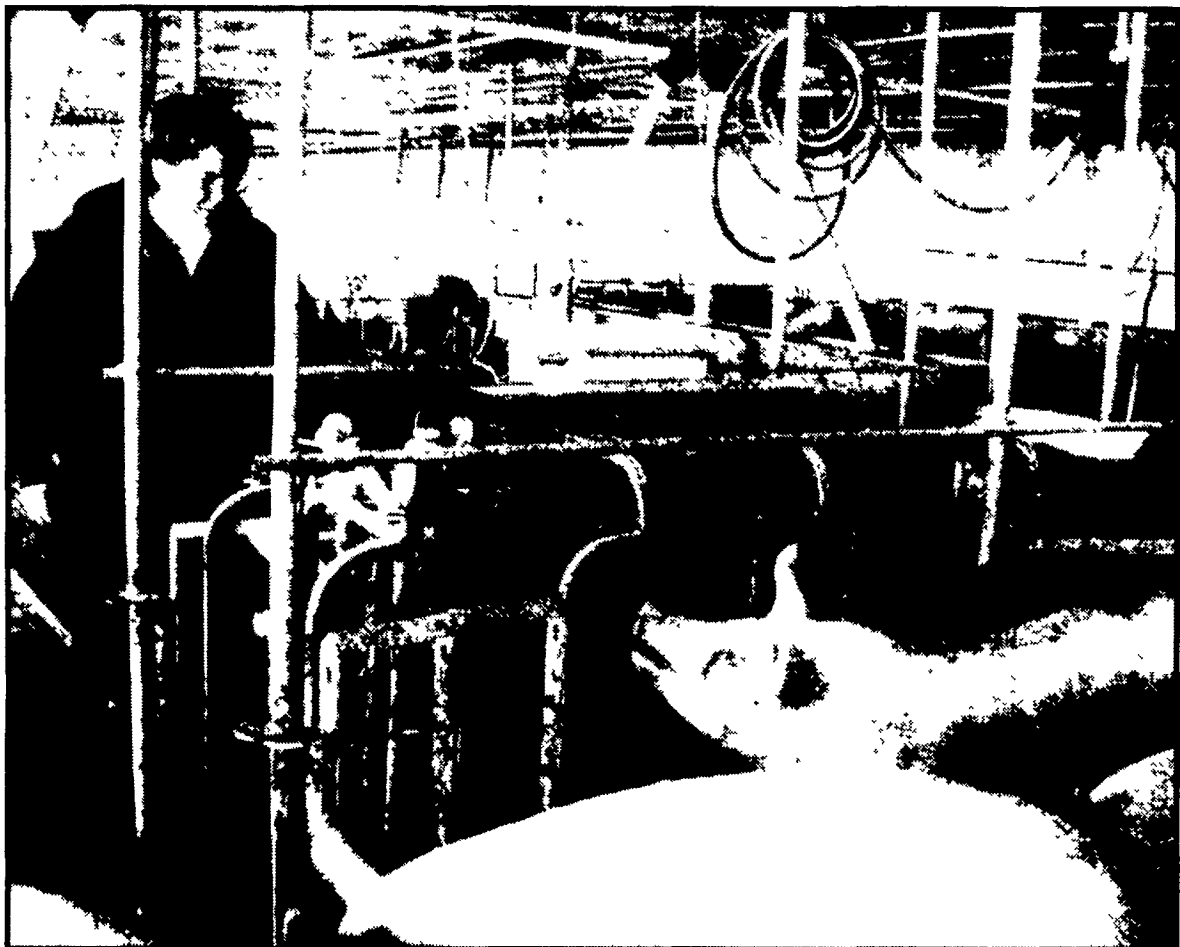
Digestion of the manure continues to some extent even after it has left the digester, according to Robb Meinen, Penn State senior extension associate who is monitoring the project.

Many details remain to be seen about just how well the process will work and how efficient it will be.

But the Pennsylvania Department of Agriculture has enough confidence in the \$256,000 project to contribute about \$75,000 toward its construction and monitoring. Penn State is involved in developing and monitoring the project. Also contributing some funds are the Pennsylvania Department of Environmental Protection, the Pennsylvania Pork Producers Council, and Wengers Feeds. Schick Enterprises of Kutztown is the contractor.

Ken Kephart, Penn State animal science professor, conducted a feasibility study earlier this year for the project, which he called "The Development of a Novel Anaerobic Digester System."

"The new design will clearly reduce capital requirements, but careful analysis and performance monitoring will be needed to judge the feasibility of this approach," Kephart reported. "Based on our preliminary assumptions of total project cost,



Caressa Crone interacts with pigs in the finishing barn. The scale shown here is used for sorting hogs as they near market size. At sorting time, the pigs must pass through the scale in order to reach the feeding station. A computer-controlled gate separates the animals by weight.

available grants, anticipated electrical generation, and debt service, annual expenses are expected to exceed revenue estimates by about \$4,000 per year."

Kephart noted some factors which could change the economic returns include reduction of manure volume collected because of a lower than expected amount of manure deposited over collection

lanes, lower than expected biogas output, and excess electrical generation during times of relatively low electrical demand on the farm.

Any extra electricity would be sold to the utility company at 2 cents per kilowatt hour (KWH), compared to a 10 cent per KWH purchase price, according to Kephart.

Meinen noted that extra electricity generated might also be used to pre-heat "attic air" in the hog barns to supplement the gas heat system already in place.

As far as the hog finishing barns already in operation, Caressa Crone is pleased with the labor-saving automatic sorting

(Turn to Page A35)

## 2004 AG DIRECTORY

The year 2004 marks the fourth annual *Lancaster Farming Ag Directory*.

Looking for the experts in field and barnyard management? Looking for the leaders for crop and farm financial planning? Then you've come to the right place

For 2004, *Lancaster Farming* plans a new portion of the book "Call On The Experts." It's a component of our Ag Directory helpful for those seeking answers - right at your fingertips. The directory is scheduled in the Dec. 27 issue.

In 2003, the Ag Directory totaled 152 pages and was jam-packed with contact names, numbers, addresses, and even Websites from agriculture in our eight-state region, including Pennsylvania and surrounding states. The "essential" reference book will include more names, addresses, phone numbers, and Web addresses than ever before.

Make the 2004 *Lancaster Farming Ag Directory* your source of expert information from the more than \$50 billion regional ag industry



CONSIDERING EXPANDING YOUR FARM OPERATION?



TeamAg's Engineers and Nutrient Management Planners will give you the professional support you need for your expansion, regarding CAFO, Nutrient Management and local permits. Call us today for an estimate.

**TeamAg, Inc.**  
901 Dawn Avenue, Ephrata, PA 17522  
717/721-6795

- † Site Surveys \* Grant Writing
- † Site Engineering and Manure Systems Design
- \* Nutrient Management Planning
- \* Precision Agriculture

- † CAFO (Concentrated Animal Feeding Operation) Permits
- \* Natural Resources Management
- † Crop Management/Scouting/Soil Testing

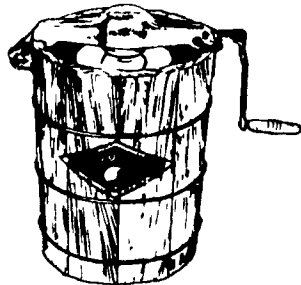
www.TeamAgInc.com  
Email: TeamAg@TeamAgInc.com

The Original Old Fashioned



## ICE CREAM FREEZER

6 Qt. Hand



DEPOSIT THIS  
COUPON AT  
LANCASTER FARMING  
BOOTH AT THE

- KEYSTONE Farm Show, January 6-8, 2004
- PA STATE Farm Show, January 10-17, 2004

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TOWN: \_\_\_\_\_

STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_ PHONE: \_\_\_\_\_

## Lancaster Farming

Winners To Be Announced In Jan. 24 Issue Of Lancaster Farming