

Swine rations require careful preparation

NEWARK, Del — To grow well, pigs must eat properly. Whether a farmer buys ready mixed feed or prepares his own, it must contain certain necessary nutrients, says University of Delaware Extension livestock specialist Richard Fowler. He has several suggestions to help pork producers evaluate and improve feed quality.

A balanced swine diet contains ground grain for energy, some from of protein like soybean meal, plus supplementary vitamins and minerals. Sow lactation rations may contain additional ingredients like alfalfa meal, ground oats or what bran for bulk. Feeder pig starter diets often are more effective when milk products and sugar are added, Fowler says.

The grain may be ground, rolled, roasted or fed in a high moisture form. "Dry rations sometimes are moistened and fed as a paste or in water. But my observation of wet

feeding is that it requires more careful management. And the results may not be any better than those obtained with dry feeds," he says.

He recommends having a swine nutritionist check rations to be sure they contain proper amounts of all essential nutrients. The Extension Service does not do this, but can provide suggestions for rations.

"When formulating your own feed," Fowler says, "remember that ingredients differ. Corn and barley are not equivalent energy sources — especially for a young pig. Substitute ingredients only after checking with a nutritionist. Use feed additives as directed and observe withdrawal restrictions."

There are five ways to obtain complete swine rations, the specialist says.

They can be bought and delivered directly to the farm. In

this case, the cost will include markup on ingredients plus charges for grinding and delivery.

The second method is a version of the grain bank. Producers who grow grain and feed hogs can deliver or store grain at a commercial elevator which has feed mixing capabilities. The elevator will do the grinding and mixing on request and then deliver the rations, charging some markup for storage, supplemental ingredient additions, preparation and delivery.

A third method involves buying complete feed supplements and mixing them with ground grain on the farm. Two or three supplements are required for farrow-to-finish units, Fowler says. Depending on how much is used, they can be stored in bulk bins or bags. Cost of this system includes markup, delivery and handling.

Base mixes or premixes such as vitamin and mineral supplements can also be bought and blended on the farm with corn and soybean meal. These premixes should not be stored longer than three months because, when combined, vitamins

and minerals soon lose their potency, Fowler warns. Some manufacturers package supplements separately for this reason.

It is also possible to prepare base mixes on the farm. But this requires mixing equipment designed for vitamin and trace mineral preparation — plus very accurate scales. Someone must also be available to prepare the mix. This method offers greater flexibility in ration formulation and lower ingredient costs, but works best on farrow-to-finish farms of 100 sows or more.

"The method of feed preparation you choose depends on the time and labor available to mix feed," Fowler says. "Don't attempt to make base mixes unless you're willing to weigh and mix all ingredients carefully."

Proper storage is also essential to a successful feeding program. Keep bagged ingredients on pallets or raised platforms. Install hopper bottoms on bins that will be emptied and refilled often.

Complete clean-out is important in bins holding grain bought at

frequent intervals, or those where the contents change. Check bins regularly to avoid grain buildup and possible molding. Hopper bottoms for grain should slope 45 degrees. Those for bean meal should slope 60 degrees unless they have an antibridging device. Fowler says vibrating devices have not proved effective in preventing bridging. Instead, he recommends using a rotating vertical device with hanging chains.

On-farm mixing equipment usually consists of tractor-powered units or stationary mills. Clean and check these for accuracy. Test feed samples regularly for protein, calcium and phosphorus to assure proper diet formulation and mixing, he advises.

Farmers can determine the feed preparation system best suited to their operations by calculating the cost of finished feed in the bin or feeder and comparing this with the production performance of pigs. "You may be surprised to learn that there are more effective alternatives than the one you've been using," Fowler says.

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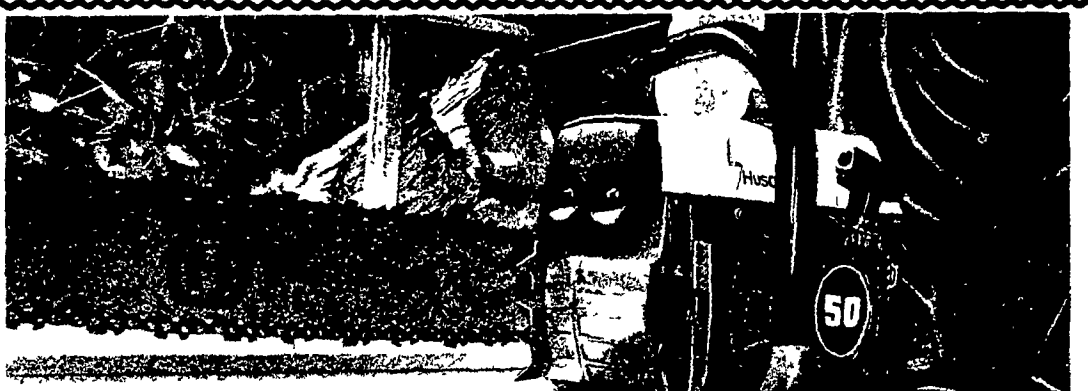
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