

October is Pork Month

LIVESTOCK LATEST



Technology no substitute for good management

NEWARK, Del — Biotechnology has given the pork industry some useful management tools, and several more are on the way. But instead of waiting for tomorrow's research results, University of

Delaware extension livestock specialist Dr. Ken Kephart suggests producers take a hard look at their present operations to see if they're making good use of knowledge that already exists.

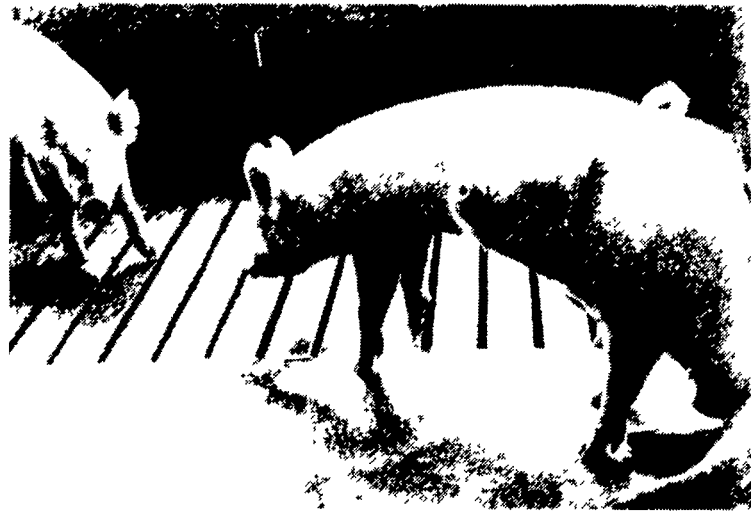
In the future, the specialist predicts, scientific breakthroughs in genetic engineering — recombinant DNA — may make it possible to grow more and better hogs faster on less feed.

Scientists using gene splicing may be able to produce vaccines to keep pigs healthier; growth hormones to radically improve growth rates and feed efficiency while yielding leaner, meatier carcasses; and synthetic amino acids to replace expensive soybean meal in rations. They can already take embryos from high performing sows and plant them in recipient sows, just as the cattle industry does.

Artificial insemination is another available technique, though it hasn't yet caught on to a great extent in the hog industry, Kephart says. Most producers find it impractical to breed artificially on a large scale, but a lot of folks are using A.I. to breed their best sows. By selecting replacement gilts and herd boars from these offspring, producers can close their herds, which is a big step in preventing disease transmission.

Sophisticated technology alone won't improve performance, Kephart says. He offers the following suggestions to help producers improve current management practices:

- Keep good records. "Total herd feed efficiency, breeding



Using performance tested boars is one good way to improve herd performance.

records, conception rate, number weaned, weaning weights and post-weaning rate of gain are just a few of the things you should be jotting down," he says. Use these records to spot problems and make decisions. If the numbers are too overwhelming for pencil and paper, a computer might help.


- Use performance-tested breeding stock. "Buy boars on the basis of looks and performance. Know how well the pigs do on your farm," he advises. "Then bring in the blood lines that will do even better."

- Make solid efforts at marketing. "Look at all the

markets in your area. Consider grade and yield programs. And sell your pigs when the time is right, not just when it's convenient."

- Keep pigs healthy and comfortable. Mange, overcrowding, heat and cold stress can all cost a lot of money. They're also factors a producer can at least partially control.

"In short," concludes Kephart, "tomorrow's technology will offer a level of performance that our hog industry has never seen. But it will be useless without good management and attention to detail."



Pork Prose
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"Over there's a sow that just weaned her third litter. She had nine pigs but raised only six. She weaned eight pigs each with her last two litters. Is it time to send her down the road?"

"And there's a gilt that farrowed seven pigs but only raised five. What do I do with her?" Have you ever asked yourself questions like these? Just when is the right time to cull a sow?

That's an age-old question that brings a different answer every time it comes up. The bottom line, of course, depends on why you're thinking of culling the sow.

If she's injured or has severe feet and leg problems, the decision is easy. She's got to go.

If she won't cycle or settle, there's also little sense in keeping her. But how long do you wait? If she isn't cycling, take a look at her condition. Sows in very thin flesh after lactation, especially first-litter sows, are often slow to come back into heat. So they deserve some time to catch up. A month is reasonable. That gives them at least three weeks since their last expected heat.

For those that cycle, but don't settle, most producers will breed twice before culling. That figures out, again, to roughly one month — or \$12 to \$15 in feed.

What about disease? If the sow has had a miserable case of MMA, many herdsmen won't think twice about sending her to market. That may be the logical thing to do. But if you talk with the folks who research this mastitis problem, they'll say you might be just as far ahead to keep the sow around. Sure, some lines of sows seem to have a predisposition to mastitis. But many of the mastitis cases we see are not the sow's fault.

And that way of thinking is true for some other diseases like Lepto and Parvovirus. Just because a sow's litter is affected at this farrowing doesn't necessarily mean she'll have a problem the next time around.

What about performance? Where should you draw the line? Some people will tell you there's no sense in drawing a line. Dr.

Maurice Richard of PIG (the Pig Improvement Company) contends in a recent article that the repeatability of sow performance is too low to justify culling on that basis.

He's probably right, for several reasons. Take this issue of repeatability and apply it to our first-litter gilt that raised five pigs. And we'll put her up against another gilt that you'd surely want to keep — one that weaned nine pigs. The difference in litter size between the two is four pigs. With the first litter (a single record), the repeatability for litter size at weaning is about 0.16. So the difference we would expect to see the next time around would be 16 percent of four pigs (0.16x4=0.64) — not even one pig.

Repeatability is telling us that, on the average, with the next litter the good gilt will wean .64 more pigs than the poor gilt. The difference is so small because there are so many things that affect litter size besides genetics.

If you've got more than one record, repeatability does get bigger. For example, the difference in litter size between two sows is nearly 50 percent predictable if they're on their fifth litter. But waiting for five litters to go by is a pretty long time to come to a decision.

Another sad fact of genetic selection is that the more you cull, the younger your sow herd becomes. Everyone who has pigs is fully aware that gilts have smaller litters than sows. So any improvements you try to make in litter size will be hampered by a higher percentage of gilt litters.

The bottom line to improving litter size at weaning is that you'll make little progress through genetic selection. A safer bet is to crossbreed for heterosis and keep the sow for at least three litters, the parity at which production seems to be maximized.

If you're still convinced you should select for litter size, then focus on your replacement boars. There are fewer of them and they account for half of your genetic base.

Meadow Mist holds Angus dispersal

LOYSVILLE — Buyers from nine eastern and mid-western states converged on Loysville's Meadow Mist Farms on Wednesday, Oct. 10, for a dispersal of mature Angus cows conducted by the farm's owner, Dr. Burleigh Anderson.

"We had quite an active sale," said the well-known veterinarian and Angus breeder, whose 107 lots brought \$133,400, for a sale average of \$1,247 per head. The three top selling females sold for \$7,900, \$5,800, and \$5,700.

Auctioneered by Mike Jones, the sale featured daughters of Schearbrook Shoshone, Ankonian Dynamo, PS Power Play, Bon View Winston 1342, Big Moose, Lucan of Wye, Band 174, and Meadow Mist Magnum.

"We're starting all over again with 87 heifers," said the veteran cattleman who began breeding Angus cattle 23 years ago. Since its beginning, Meadow Mist Farm has maintained a completely closed herd.

Anderson, who owns a total of 18 bulls in partnership, reports that most of his heifers are currently being bred by Meadow Mist bulls.

"The one we're most excited about is Meadow Mist Sunrider 350," says Anderson, adding that the bull has had cattle bred to him from California to Maine.

An advocate of performance testing, Dr. Anderson has participated in Ohio, Pa., and W. Va., bull test programs, and currently

has 15 bulls on test in W. Va. In 1982, Meadow Mist had the highest indexing bull in the 10-year history of the Penn State test station.

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