

New Products, Ideas For Pork Producers

"Hog Operation Of The Future"

By Marlene Halverson

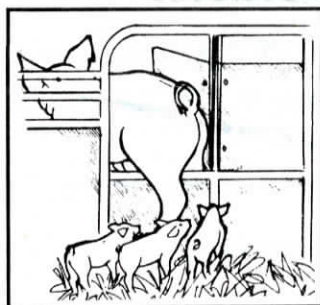
The farm of Karl-Arne Andersson near Orsundsbro in Central Sweden has been described by some as "the hog operation of the future."

What makes this operation unique is the way it has adjusted to Sweden's animal welfare regulations, probably the most restrictive in the world. Andersson has demonstrated that these new regulations can not only be tolerated, but can stimulate new thinking that, in Andersson's case, has resulted in a dramatic improvement in overall production efficiency.

The attraction is Andersson's innovative farrowing setup, which has increased his sows' productivity to an average 25-28 pigs weaned per sow per year. It spreads his fixed costs of production over a larger output, and makes management of his hog enterprise easier, he says. In the bargain, he is satisfying requirements of Sweden's strict animal welfare laws "by a pretty good margin."

In 1984 he started experimenting with a special farrowing-pen gate that would allow his sows freedom to leave their farrowing pens after the piglets were 3 days of age. They could join other sows and one or more boars in the feeding, sleeping and manure areas of the farrowing barn. His idea was to devise a system to induce estrus in a manner that did not require abrupt removal of sows.

Andersson has patented the gate, which he calls the "Hogby Grinden," named after his farm "Hogby Gard." The gate, being



manufactured by Funki, a Danish firm, features two spring-pressured doors, one which serves as an exit and the other as an entrance to the pen. So far, about a dozen Swedish producers have adopted the new-style gate and interest has been shown by hog producers in Finland, Denmark and Norway, says Andersson.

He has pens for 27 sows in his farrowing barn. His gestation barn holds about 35 sows or gilts. Andersson (66 years old) spends from 1 to 3 hours each day managing and working with his system. Aside from a worker who substitutes for him 3 days each month, he handles the system alone.

Andersson emphasizes that his system demands specialized management and thus won't work for every producer. Nevertheless, he believes one full-time skilled hog producer could manage a maximum system of 200 sows using the Hogby Gate system. This would mean keeping them in groups of 45 to 50. On a larger farm, multiples of these groups could be kept.

For the first 3 days of the nursing period, the gate is locked and both sows and piglets confined to the farrowing pens. The pens are 8 by 8 ft. with a creep area and warming lamps for the piglets. Sows and piglets both

are fed in the pens, the piglets in the creep. After the piglets are 3 days old, the gate is unlocked and for the remainder of the nursing period (usually 5 more weeks), mother sows can come and go at will.

When the sows are free to leave the pens, they do all their defecating and urinating in the manure alleys of the barn, even at night. This cuts down labor (the pens need cleaning only once every two days) and improves the hygiene of the pigs' environment.

Piglets are weaned when the litter is observed to eat a little less than 1/2 lb. of feed per pig each day. Final weaning is accomplished by locking the sow out of the pen. Piglets remain in the farrowing pen until they weigh about 55 lbs., when they are sold as feeders. Andersson estimates it takes about 185 lbs. of feed for him to produce a 55 lb. feeder pig, including sow feed.

Gilts and boars all wear collars identifying them according to their feed requirements. Requirements for sows are preset. The collar allows each adult pig to enter a computerized feeding transponder and eat freely at any time during the day. When the daily feed allotment has been reached, they get no more from the transponder.

When sows are about to farrow, they are moved from the gestation barn to the farrowing barn. Andersson has found that if the pens are bedded deeply with straw, sows seasoned to the system will voluntarily select one of the farrowing pens in which to make their nests. Sows are then locked into their farrowing pens two nights prior to farrowing. Pregnant gilts new to the system must be shown to the feeding places and farrowing pens.

Currently, Andersson says mortality is 10 to 15%. He believes this is too high, but he does not attribute it to the system as much as to the fact that as litter sizes become larger, they become harder for sows to "manage."

Even so, with the exception of spring 1988 when 23 pigs were weaned per sow, Andersson has never weaned fewer than 25 pigs per sow since he developed the system. He feels that 30 pigs per sow per year is possible if management is at optimum level. "Exercise and freedom to express natural behaviour make for reduced sow stress," Andersson believes.

He does not vaccinating and raises his own replacement gilts. His reasoning: "Sows and piglets get involved with each other and develop immunity in a completely different way than in an ordinary system."

Not all sows adapt to the system. If the environment outside the farrowing pens is too good, the sows may be tardy in returning. If this happens, Andersson simply locks the sows into the pens for a couple of nights in a row. Then they readjust.

Another disadvantage of the system is that some sows may come into heat too early, thus reducing litter size.

Andersson feels, however, that the advantages of his Hogby Gate system far outweigh the disadvantages. His sows are calmer and in better condition and, with breeding during lactational estrus, he is able to produce a higher number of pigs per year from his system than before. He has reduced his labor requirements and has made his management easier. (Excerpted from Hog Farm Management).

Portable Piggy Weight Scale

Thanks to this first-of-its-kind management "tool", you can now record actual weights of individual pigs quickly and economically.

"Until now, hog producers have had to weigh small pigs in bunches and settle for "average" weight. But averages can be deceiving," says Don Meiners, manufacturer-marketer who cites the parable of the man standing with one foot on an ice chunk and the other in a pail of boiling water. "On the average, he's comfortable."

Meiners' new digital scale weighs up to 50 lbs. in 1/10th/lb. increments. It comes with two vertical V-shaped leg holders to fit all size pigs from birth through 50 lbs.

Made in the U.S. of high density plastic, it's moisture-proof and sells for \$195.

Contact: FARM SHOW Followup, Intensive Care Nursery, P.O. Box 190, Colfax, Ill. 61728 (ph 309 723-6220).



"Recirculator" For Milk Replacer

"It accelerates growth as much as 5 lbs. at 4 weeks for a minimal cost," says John Soppe, Manchester, Iowa, who's developed a recirculating system for feeding milk replacer to baby pigs.

Soppe raises pigs and also works as a plumber. He got tired of trying to feed milk replacer to pigs out of gallon jugs or other makeshift feeders. But he couldn't find a commercial system that would always keep milk fresh and yet provide pigs with all they could drink. The system consists of a small watering cup that mounts in one corner of a crate where the sow can't get at it. The cup has a 1 1/2 in. center pin that opens a valve when the pig pushes on it, letting milk replacer into the cup from a pressurized line running below the cup. If the pigs aren't drinking in one crate, the milk just goes on by to the next crate.

Fresh milk is added at a central 20-gal. reservoir. A water valve is plumbed into the system so it can be cold-flushed at any time. After each farrowing cycle, Soppe flushes the system with hot water and a mild detergent. "It takes just minutes to clean," says Soppe, noting that he worked on developing the system for 1 1/2 years before coming up with a design that worked. "None of the valves has ever plugged or broken. Works perfectly."

Soppe starts feeding milk replacer to pigs

at one week. "They won't start looking around until they're 8 or 10 days old. Once they find it, they love it. Eight litters of pigs will drink about 30 gal. of replacer a day."

In addition to increasing sow weaning weights, Soppe says the early feeder saves pigs that might otherwise be orphaned, reduces sow stress, helps provide more uniform litters, reduces secondary infections due to increased vigor, can be used to deliver doses of vitamins and minerals, and lets him save large litters without moving pigs to other crates. Weaned pigs have been averaging 3 to 5 lbs. heavier at 28 days. Total cost per pig for replacer varies from \$1.50 to \$2.25.

Another benefit is that with the faster start, he can switch pigs to cheaper ground feed right after weaning, and use less medication.

Soppe says the control valves that mount on the wall by the central reservoir are key components in making the circulating system work. He has patent protection and has already sold several systems to farmers in his area. It's designed for do-it-yourself installation. Costs about \$50 per crate (\$68 per crate for 12 or less).

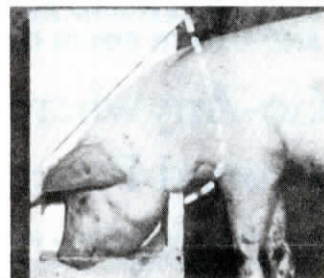
For more information, contact: FARM SHOW Followup, John Soppe, Manchester, Iowa 52057 (ph 319 927-2232 or 927-5895).

"No Waste" Hog Feeder

It's estimated that average food waste from conventional hog feeders is close to 15%. "The new Aco 'high efficiency' feeder can reduce this figure to less than 2% — without having to make any mechanical adjustments," according to the manufacturer.

Individual hoppers, made of polymer concrete, are equipped with protruding wings. The feeding pig's head and ears are invisible to penmates, thus reducing aggression by 60%, the manufacturer points out. "Because pigs 'stay put' longer, much less feed is dropped on leaving the position."

Pigs can't step in or mess in the feed hoppers, thanks to a sloped front which makes it extremely awkward for the pig to put a foot inside, let alone keep it there. There are no corners for stale feed to collect in. An inside agitator helps prevent feed blockage.



Available in starter, grower and finisher models. The 4-hole finisher model sells for \$432.

Contact: FARM SHOW Followup, Aco Polymer Products, 12080 Ravenna Road, Chardon, Ohio 44024 (ph 1-800-543-4764, or 216 285-7000). (Excerpted from Pork Journal).