



Sows in Groups Preferred

Electronic feeding system fosters a move to confinement while retaining the advantages of managing sows in groups.

By Dale Miller
Editor

Just over 10 years ago, Bryan Ruwe decided it was time to move his breeding herd from dirt lots and the hot and cold temperature extremes common to northeast Nebraska to a more controlled environment. The options ranged from individual sow stalls, the most popular choice of the day, to electronic sow feeding systems (ESF).

"We debated what to do. I was used to running sows in big, outside yards, so I hated to see them locked up in a stall the whole time. But it was a big leap from dirt lots to the electronics needed to operate ESF," the producer from Wayne, NE, admits.

After consulting with the University of Nebraska Extension staff — Mike Brumm and Don Levis — he finally settled on the Osborne TEAM Electronic Sow Feeding (ESF) system "because it was closest to how I was used to managing my sows," he says.

A new 44 x 150-ft. barn was built in 1998 to accommodate 300 sows from

breeding through farrowing. It features three rows of 21 stalls where newly weaned sows are bred and held for about 25 days before being grouped in one of three 30 x 40-ft. pens equipped with the Osborne ESF system. A fourth, slightly smaller pen is used to train and

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house gilts in their first pregnancy.

Sows of all sizes and parities are grouped 60 per pen. At first, Ruwe admits he was very concerned about the size discrepancy amongst sows.

"On dirt lots, we wouldn't dare throw gilts in with old sows — the sows would have killed them," he says. Consequently, his breeding herd was rolled frequently. "We kept gilts, ran them 4-5 parities, then turned the herd

and brought in another group of gilts," he explains.

That's all changed with ESF. "We don't sort by size; it doesn't matter if they're an eighth-parity sow or a first-parity sow, we just mix them all together. That was one of my biggest concerns at first, but it's not a big issue," he says. "Sure, there's still a definite pecking order to the pen, but I see more aggression between big, old sows. They will go around picking fights for a couple of hours, but generally they have it out of their systems by the next day. The young, more timid sows stay out of the way, off in a corner."

The sows are fed on a 24-hour cycle; all receive 4.2 lb./day, regardless of size, age or condition. "I tried feeding about 3.8 lb./day to Day 90 of gestation, then bumping them up five days later, then again another five days after that. I thought that would be the way to manage it, but we were getting some really big sows and some were getting too fat. Now, I feed them all 4.2 lb./day, year 'round, until they're moved to the farrowing rooms, and I think they are in a lot better condition," he says.

No Loitering

The sow's radio frequency identification (RFID) tags signal the ESF feed



Bryan Ruwe



drop. "She's got to have her nose in the feed pan for the antenna to read the tag," he explains.

Feed delivery is metered by revolutions of an auger. For example, the auger may be set to drop feed every 35 seconds. When the last drop occurs, the sow has about three minutes to finish eating before the air-operated rear door opens. "The next sow waiting to enter is the incentive for that sow to leave," he notes.

Sows can enter the feeding station at any time, but if the system recognizes that a sow has already eaten her daily allotment, the rear door opens and the next hungry sow encourages her to vacate the station.

"That happens a lot, especially with old sows. They will go back just to pick up a little feed spilled here and there. Oh, they're pretty smart!" he assures.

A computer program records which sows have eaten, which gives Ruwe an easy reference to identify any sows that have not passed through the station within the last 24 hours. The list of "no-shows" is checked for lost tags or if they are sick or injured and unable to go through the feeding station.

Lost tags are not a big concern. In a group of 60 sows, only 2-3 tags are lost during a gestation period. "They lose more tags in the farrowing room because there are more places for the tags to get caught," he says.

The ESF system resets at midnight and, although the system does not record the time of day each sow is fed, Ruwe suspects the big sows are first in line at the stroke of midnight. After the more dominant sows have eaten, the more timid sows have the rest of the day to eat at their leisure.

Ruwe manages groups of gilts separately, training them to go through the ESF by sprinkling feed in the stall and feeder to coax them through the system. "We only help them through once or twice. Within the first week, 80% have figured it out," he says. By the end of the second week, all have adapted to the system.

Pros and Cons of ESF

After a decade of experience, Ruwe shares a few thoughts on managing electronic sow feeding:



Bryan Ruwe says his 10 years of experience with electronic sow feeding has taught him the importance of regular maintenance and keeping spare parts on hand.

- The average parity in Ruwe's herd is between 3-4; just 15-20% of the breeding herd is gilts. Being able to better manage all parities has improved the herd's weaning average by about a pig per litter.

- Sows are much more content and docile. "They don't associate you with feeding time anymore, so you can walk amongst them and they are a lot easier to handle," he says.

- Sows can find their own comfort zone. "If it's too hot in one area, they can get up and find a cooler spot," Ruwe points out.

- At the outset, feet and leg problems began to crop up, but Ruwe attributes that to a lack of selection pressure while on dirt, rather than the sows fighting on slotted floors. Focusing on feet and leg soundness has helped, as well as a feed supplement — Hoof King (Agri-King, Inc.) — which, he says, "has made a big difference." Hoof King was developed to support the growth and increase the strength of the keratin proteins that are the foundation of healthy hoof tissue, according to Agri-King swine nutritionist Patrick Brown.

- The electronics and the many

moving parts are a challenge, particularly at start-up. "You have to be patient. There's a lot to learn, but it's manageable," Ruwe says. "I'll admit, after the first year I was about ready to give up on it. But at the start-up, the Osborne salesman came to the farm and helped us tag the sows and enter them into the computer, and helped us over the phone with the electronics and the computer programs."

- Maintenance is key. The air valves, feed drop motors, springs and rubber bumpers on gates need to be checked regularly. "If it's broken, you fix it, just like anything else. In crated gestation, a welder will fix about anything that needs fixing. With ESF, you have to keep updating them; I've learned to keep parts on hand," he says.

- A back-up generator is essential. "Obviously, the feeding system won't work without electricity," he adds.

Would he make the same choice if he had it to do over again? "I've asked myself that question," he admits. "On days when we're having problems, I think stalls would be a lot easier. For the most part, things work pretty well, and it answers some of the animal welfare concerns we're facing today." **NHF**