Decision-making: Identifying Critical Points and Picking the System That’s Right for You
(Session 3E)

PRODUCER PANEL: Gary Johnson, Osco, Illinois; Steve Weis, Osage; Bruce Williams, Villisca
MODERATOR: Clare Hinrichs, Department of Sociology, ISU
RECORDER: Larry McMullen, ISU Extension swine specialist, East Central Area

Each panelist discussed his operation and gave some decision-making factors used to develop the current operation.

Gary Johnson pasture farrows in Henry County Illinois. He had wondered whether pasture farrowing was antiquated, or whether it was a production method that could be exploited.

“After hearing the morning program, pasture farrowing may not be as old-fashioned as I thought,” he told the audience. “Maybe I am on the ‘cutting edge of technology.”

Johnson said he felt pasture farrowing matched technology for several reasons. First, he batch-farrows so that he has a large group of pigs, an all in/all out system. If he wanted to early-wean and pair up with someone else, he would have a system large enough to work. Five years ago he did not have the technology or nutritional knowledge to do batch-farrowing, which is one technology that allows him to survive in the business.

Always on the lookout for new technology, Johnson said he has mixed feeling about the number of empty swine buildings in his neighborhood, but another possibility is to put weekly groups of pigs on different farms to keep his all in/all out system in operation.

There are several negative aspects of batch-farrowing in a pasture system. One is marketing, which is seasonal in the spring and fall. Traditionally, this is a season of low market prices, but he has decided not to deviate from these farrowings. He said he has tried to farrow at other times of the year and it has not always worked. Most of the time, higher market prices do not offset the lower number of pigs produced in those off-months.

Another concern in a network system is packer access. This is getting to be more of a problem as time passes. He might not have a problem with a half semi-truck load, but it can be troublesome when he has only 20 or 30 hogs to sell. He has not pursued joining a marketing cooperative at this time, but it may be the answer in the future.

Labor availability also is a negative aspect. Pasture farrowing is very labor intensive during a short period of time, and it’s difficult to find help, especially in
an area with a declining rural population. Getting help from family members has only a narrow window, possibly from 12 years of age through high school, which is only a short period in the scheme of things. Johnson said he has had to consider the available labor supply and pay competitive wages to attract and maintain people to meet his labor needs. He said he also might consider networking or integrating with other individuals.

"Someone asked in this morning's session, 'How can I become a part of the food chain?', which was something I had never considered," Johnson told the audience. "I have always looked at raising hogs as an independent producer and doing everything my way. I am finding that is probably not a very healthy attitude.

"As an independent producer, I thought I could buck the trend, but I am seeing in my county some changing trends in the hog industry. It has humbled me to say, 'How can I maintain as much independence but yet stay competitive in the hog industry?' I don't think I can do it alone. I must tie into the strengths of others to remain competitive. Again I just want to be a part of the food chain."

**QUESTION:**
Have you considered using a hoop to farrow year-round?
Johnson: He currently farrows twice a year, in the spring and fall, and does not want to expand because he doesn’t have enough gestation facilities. Also with leaner genetics, he said he wants to keep sows in smaller groups to keep sow condition uniform and allow him time to concentrate on his breeding herd. He does not want to use off-site gestation facilities; sows are high-maintenance and require time and observations. But to maintain packer access with lean carcasses, Johnson said he periodically buys gilts to get a "jump" in leanness, but would appreciate hearing other people’s experience in marketing small numbers.

Weis: He has not had any problems with market access, and has been able to sell only 10 to 30 hogs at a time.

Williams: He works with a marketing group, Niman Ranch, that sells pork to California restaurant chains and grocery stores.

**Steve Weis** farms with his father and two brothers. They have an average diversified farm with hogs, veal calves, corn, soybeans, oats, and hay. Their swine herd consists of 200 sows and they use a variety of buildings. For gestation, farrowing and nursery/grower pigs, they use a confinement building. For finishing, they use outdoor lots, open-front barns, hooped structures, and a confined double-curtain finisher.

In 1993, they built the confined finisher for $200 per pig space. At the time, confinement finishing seemed like the only option. When hog prices fell in 1994, Weis said he started to think about the future and the direction the hog industry was taking. When they lost the rental of a barn and open-lot facility in 1996, they decided to construct three hooped buildings. They were 30 x 72-ft. BioTech, structures that each held 150 to 180 pigs. The cost of construction was $60 to $75 per pig space.

He listed the following concerns and issues that he considered when they decided to change from confined finishing to the hooped structure finishing

- Is it right for your farm and right for you personally?
Weis received a grant from the U.S. Department of Agriculture's Sustainable Agriculture, Research and Education (SARE) to compare confined production to hoop production. He found that hoops are economically viable. The average daily gain is comparable, if not better, in hoops; feed efficiency was the same in the summer but worse in the winter. For them, the backfat and yield was the same for pigs in the hoops and confinement buildings.

Do you need the flexibility of hooped structures? This goes back to the question: What is the direction of the hog industry for the small- to mid-size producer? Hooped buildings can be used for other purposes such as hay storage and different kinds of livestock. Hoops are versatile and low in price, which makes them low-risk structures.

What direction are you heading? The pork industry is shifting in two directions: toward industrialized pork complexes that use large confinement buildings, and toward "alternative pork" that includes production in deep-bedded facilities, organic or natural pork, and niche marketing with a quality product. Weis said he found in slaughter checks that hogs in hooped building were healthier and there were fewer air quality problems. One negative aspect of hoops might be worm infestation, which can be controlled. As the industry grows, taste will be a more important factor. Weis said people tell him that pigs raised in confinement taste different than pigs raised in hoops.

What are your management abilities? Weis said operators must like hogs and enjoy working with them. A confinement production system takes different skills and there is less contact with pigs; hoops requires a higher degree of hands-on pig husbandry (checking, bedding, etc., on a daily basis).

What is the weather? If weather is a concern, it is easier to raise pigs in confinement.

What happens at market time? Weis said it may be more difficult to get pigs out of the hoops than out of a confinement facility. This might be managed by occasionally allowing the pigs to go out in an alley. Pigs are naturally curious and will respond to handling.

What about bedding? This was a big question for the Weis operation because they use ridge-till cultivation. He said they wondered how they would get the large volume of bedding needed for hoops. But if this system works on ridge-till for them, Weis said it will work for anyone. Because a large volume of bedding is required, they make it a high priority to get bales made in the fall. They also look at several sources for bedding materials. Operators also must consider how they will handle the bales. In their operation, they have used both small bales and large round bales.

How will you handle manure? Weis said they were already set up to handle dry solid manure. This must be considered because it should be done in an environmentally sound manner. The large volume of bedding equates to large volumes of manure and operators must know how they will handle it. Weis said that in their operation there was a lot of pressure to spread directly to the field at all times.
and under all conditions, but they are now looking at composting the manure and have been working with Tom Richard at Iowa State University. Composting decreases manure volume by 1/3 to 1/2. Manure varies within the hoop from very dry to very wet, which becomes more uniform after composting. Composting also stabilizes nutrients in the manure.

• What are your other concerns?
Weis said they were concerned about the back curtain on the north end as being a weak "link" in the system. They also are concerned about the longevity of the tarp and whether it will last for 15 years. He is concerned which effects longevity more: wind or direct sunlight?

To summarize, Weis offered these observations:
• The opportunities in hogs may not be in conventional markets and methods of raising hogs.
• Keep an open mind.
• Fit the system to the farm and the resources.
• Consider the economics and flexibility of hoops.
• Management skills must be geared to hooped buildings.

QUESTION:
How do you handle processing cornstalk bales on ridge-till?
Weis said he chops the stalks on the ridges in the fall, then rakes them. The baler wheels are spaced to fit the rows, and baler pick-up tines are modified to fill the ridges. It is almost impossible to pick up as much stalk material in a ridge-till field as in a flat field, but this leaves more ground cover. Bales are picked up eight at a time with a mechanical pick-up machine. When doing this, the ridges cannot be crossed; the machinery must follow the ridges.

Bruce Williams is a fifth-generation pork producer from southwest Iowa. He began raising hogs when he was 10 years old and his father gave him a sow. Profits from hogs he raised put Williams through Iowa State University.

Williams has farmed since he graduated from college in 1978. He was in partnership with his father until 1990, and has since been on his own. He describes his operation as "typical" with corn, soybeans, farrow-finish hogs, and a cow/calf beef herd. They use two confinement farrowing buildings and Cargill nursery and finishing units.

He said he had never been around a pasture farrowing system, so he modified his own system to become an outside system that does not have confinement buildings or farrowing crates. He has 80 to 90 sows, and farrows 20 sows every 40 days in individual farrowing huts on a concrete slab. Each sow has access to a 6x12-ft. exercise pen in front (the sow is never confined in the hut). Huts are enclosed under a frame structure with a single sloping roof with a closed north wall, which allows him to farrow year-round. Williams moves six to seven litters out of the farrowing pens and into a single-pen Cargill unit when pigs are two to three weeks old. All pigs stay together until they are weaned at six weeks. Sows are moved to Cargill breeding/gestation pens (he uses artificial insemination). Weaned pigs stay in lactation pens for another two to three weeks, then are moved to another Cargill pen where they stay until they're about 80 lb., at which time they move into one of his two hoop buildings, Cover-All,
and BioTech. Pigs are sold out of these buildings.

He is only getting started with Niman Ranch, but hopes to eventually sell most of his pigs through that company. Niman Ranch has strict standards, including:
- pigs must be raised on pasture or bedded pens (all pigs of any age must have access to bedding),
- no growth-promoting hormones or steroids are allowed,
- no continuous use of subtherapeutic antibiotics are allowed (unless pigs are treated for a specific problem for a short period of time), and
- no feeding of meat by-products is allowed.

He talked about some of the decision-making processes and philosophies he has used in his operation.

1. About confinement—"I have never been a confinement person, and I have never tried confinement. I look at confinement buildings as allowing you to maximize production, but they will not let you maximize profits. Confinement is bad for the producer's health, it's bad for the environment, and you must make a long-term commitment to raising hogs. It's hard to find outside labor for confinement, and I'm convinced that there are more disease problems in confinement."

2. About herd management—"I have a completely closed herd and very seldom have any disease problems. I am concerned about market access and market availability. Other things that I do differently than confinement units are that I use no supplemental heat except for some heat mats in farrowing huts, also no ventilation fan, no antibiotics, and there's no liquid manure so I do not breathe manure pit gases. The bottom line is my work is fun and it is not stressful. I enjoy working in the swine unit every day."

3. About sustaining his operation—"I am now developing a whole farm system to tie everything together. I have 225 acres of row crops on a five-year rotation. I plan to compost the hoop manure to provide the fertilizer on this land. I am hoping to develop the cow herd and to diversify. The bottom line: I am very interested in sustainable agriculture. I have two young sons and hope that at least one will want to continue the operation."

QUESTIONS:

Are animals shipped directly to California when sold to Niman Ranch?

Williams delivers animals to Des Moines where they are slaughtered and carcasses are then shipped to California. Currently, Niman Ranch buys 250 pigs per week. The program began two years and all indications are that it is a growing market. Their current price for pigs is $43 per hundred-weight.

Do you have to use certain genetics?

Niman Ranch does not require certain genetics, but the meat must taste good. When they began the operation, Niman Ranch targeted Farmers Hybrid Breeding Stock, which Williams said is no longer in business. Williams had used Farmers Hybrid genetics for more than 30 years, so Niman Ranch was a perfect fit for marketing his pigs. Niman Ranch does a taste test on every load sold, and if pork does not meet this specification, the sale does not go through. This pork goes to upscale restaurants in the San Francisco area and it must taste good.

Tell us more about your farrowing system.

Originally, Williams' operation was set up
on a seasonal farrowing schedule. But when he started selling to Niman Ranch, which needed pigs year-round, he modified his schedule. "When it's 20 below zero, I will be worried about those pigs," he said. "I may have to add some more supplemental heat, but I think I can make it work."

Are your farrowing huts isolets or modified "A" huts? Williams uses huts that are similar to isolets, which he orders from a Missouri company.

Do your farrowing huts have a floor? The huts have an oak floor, but Williams uses a rubber mat to cover cracks in the flooring. The creep area is in the back, where he also uses a heat mat. Within a day or so, pigs find the heat mat. He also adds bedding when the sow farrows.

How are sows fed? Sows use individual nipple waters and they are fed on the ground. Sows will eat about 20 pounds per day. "The most amazing thing is putting the sow and pigs together when the pigs are 10 to 14 days old," Williams said. "Pigs do not starve out, there's very little death loss, sows and pigs get exercise, and they get along quite well. It's low-tech, just a converted Cargill building."

Is your Niman Ranch connection as an individual or part of an emerging network in Iowa? Niman Ranch started by word-of-mouth. But because of the good-tasting pork, they cannot keep up with demand. Paul Willis has recruited more producers and sets up the marketing.

Do you have a formal organization? Right now, it's a very informal organiza-
tion. Producers sign an affidavit that says they adhere to the standards for the pork and its production. There is no contract and no guarantee. Sales depend on demand in California. Producers are on a list and are contacted in turn to supply the demand.

What is your cost of production? Williams' cost is about 30 cents per pound, which includes labor. "I feel confident with this number," he said. "The buildings are paid for, and I feel like I can compete with anybody. It's market access that has me scared."

Are you hoping to develop this market in other geographical areas? Yes. The group hopes to get a full-time salesperson for the Midwest. "I cannot say outside pigs taste better than confinement pigs, although some people claim that," Williams said. "However, it's a marketing tool in California, claiming this is a natural, outside-produced animal."

He also said this new market doesn't want really lean pigs—rather, pigs with 0.9- to 1.1-inch backfat. "I think the industry is figuring that out, too," he added, "maybe we have gone too far."

[To Gary Johnson] You stated you wanted the leaner genetics, would you change genetics to get high muscle quality? Yes, if there was an economic advantage to do so. But currently to maximize income the producer needs to produce a lean hog. Johnson said he is reluctant to produce a fatter hog and not have a place to market them.

"I had been threatened by the packer already prior to going to leaner genetics that he needed leaner hogs," Johnson said.
"So I am leery in moving very fast in either direction. It has been a slow process in getting to the leaner genetics and it would probably be a slow process going back."

Johnson sees two markets for hogs: at IBP for heavier animals, and at Farmland for lighter, leaner hogs, so hogs are marketed accordingly. Hogs from a heavier genetic line are more durable and adaptable to outside facilities, he added.