Will Iowa Remain a Leader in the Global Pork Industry? John Lawrence

John Lawrence is an Extension livestock economist and associate professor of economics at Iowa State University where he serves as director of the Iowa Beef Center. His primary concerns include cattle and hog price outlooks, livestock, and the meat industry. Prior to joining Iowa State in 1991, he held a similar position at the University of Minnesota. He was raised on a crop and livestock farm in Southwest Iowa; Lawrence operated this farm from 1977-1980. He was also a herdsman on 300-sow feeder pig operation in 1980-81. He holds B.S.and M.S. degrees from Iowa State University, and a Ph.D. from the University of Missouri. He was named an honorary Master Pork Producer in 1998.

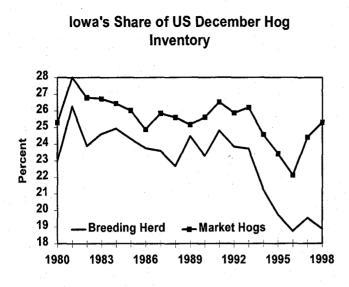
One of the greatest honors I've had was that Master Pork Producer award. When I was a producer, I was the Mills County Pork Producers president in 1979. I still remember some of the same debates on policy then that I heard again last January. We're still fighting some of the same battles, but the intensity and motivations of those battles have changed.

Perhaps we need to talk about price outlook, and if questions come up, I'll respond, but I was originally asked to talk about whether Iowa will continue to be the leader in the pork industry.

You've heard me talk before about what's happening to the pork industry in Iowa and elsewhere, and why changes are occurring. Let's first take a snapshot of where we've been and where we are; then we can look at what it will take for us to move forward.

Because I'm the director of the Iowa Beef 1999 Swine System Options Conference Center, I'm often asked about that center's objective. Put simply, it's to make Iowa number one in the beef industry. During 1968 -71, we were number one in the number of fed cattle marketed. That's nice, but I want to be number one in food quality and safety, in technology adoption, in value-added exports, and in producer profitability. I think that will make us a leader in the nation as far as our producers are concerned. As Iowa evaluates its number one position in the pork industry, we need to recognize the importance of maintaining our production and slaughter infrastructure, because our slaughter infrastructure, working as a system, keeps the profit potential in Iowa. I think it's also still important that we continue to manage our production for the right reasons, for reasons that are right for individuals, and if the state happens to benefit from it, more power to it. And I think it will.

Here's a brief history of Iowa's pork sector, given that we worry about Iowa's share of



production. These numbers reflect December inventory: You've all seen this picture before: the boxed line is the market hog inventory (as a percentage of the U.S. total); the straight line is the percentage of the U.S. breeding herd.

We did a lot of talking and hand-wringing prior to 1996 when both of those lines were headed down. In fact, if you run the math on it, you can pick the day, shortly after the year 2000, when the last hog crosses the state line. Well, that obviously wasn't going to be the case. Particularly in 1997 and 1998, we rebounded sharply on market hogs in the state, but our breeding herd continues to lag behind. In fact, if we took out some of the large sow units in the state, that number would drop off even further. This trend does point to a production system of putting the finishing hogs, which use the corn, where the corn is. About 80 percent of corn is used from the finishing phase. That's Iowa. But a very small percentage of the feed is used by the sow herd (in terms of breed to wean). "Put those sows anywhere" is the type of system that's being used today. It

doesn't have to be that way, but that's what has occurred.

As we talk about corn prices, the only state cheaper than Iowa is Minnesota. Having been in Minnesota, I know they don't really brag about that a lot, at least the corn producers don't, but Iowa is a place that will maintain leadership in the feeding of hogs, if you're talking sheer numbers and sheer pounds of the cheapest grain in the country-and we have almost the most packers in the country, too. The question of who owns those animals and who benefits from that production is still an open debate. And there are lots of ways of benefiting from that production: as a contract grower, as a service provider So there will be benefits created for the state, different from what we have become accustomed to, but there still will be benefits.

So let's take a snapshot of where Iowa is today. This is based on some research we did last summer. Glenn Grimes, Marvin Hayenga, and I surveyed U.S. pork producers. Pork 98 magazine was a cosponsor, along with NPPC, PIC, Land O' Lakes, DeKalb Genetics, University of Missouri, and Iowa State University. Most of what you've seen have been the national numbers by size of farm. But we also sliced these numbers by location. We have some regional analyses on farms from the 1,000 to 50,000 head a year marketed range that I'll share with you here. Iowa was one region; we also broke out the Western Corn Belt, excluding Iowa, which contains Minnesota, South Dakota, Missouri, Nebraska, and Kansas, and then the Eastern Corn Belt, and then all other states.

1999 Swine System Options Conference

6

How does Iowa compare? Are we different? Are we behind anyone else? Ahead? Where do we stack up? First, the Iowans' operations were slightly smaller, but I would suggest that those 420 that responded to us were larger than the average Iowa producer, marketing nearly 4,000 a year. These are commercial-size family operations.

Those 18 producers in the United States that sell one-half million hogs per year produce 24 percent of the nation's hogs, about the same as the total that all Iowa producers market in a year. Now some of them are in Iowa. If you count off the first 18 here (in the auditorium today), we can probably cover that in about three rows. Think about what that means as far as management implications and decision making and ability to change.

Where will the next generation of farmers come from? These are the primary operators of a business. Notice that Iowa actually had one of the younger sets of producers of any of the other regions. We had 6 percent of producers who were 30 or less; 7 percent were over 60. In the Eastern Corn Belt, 7 percent were under 30, and twice as many were over 60. I expect we'll see some attrition in those regions. (If we could save those guys over 60 and keep them in the business, I'm not sure how much they'd enjoy it. There comes a time when it's nice to quit raising hogs.) As we can see from this, the bulk of them, essentially sixty percent, are between 30 and 50. And Iowa is a little bit younger than the rest.

Average Marketings, 1997

| lowa | 3,860 |
|--------|-----------|
| WCB-IA | 4,942 |
| ECB | 4,921 |
| Other | 6,001 |
| Nation | 4,777 |
| 50-500 | 133,860 |
| 500+ | 1,332,045 |

Age Distribution of Producers

| | lowa | WCB-IA | ECB | Other | Nation |
|------------|------|--------|-----|-------|--------|
| 30 or less | 6 | 6 | 7 | 3 | 6 |
| 31-40 | 31 | 27 | 23 | 28 | 27 |
| 41-50 | 35 | 34 | 34 | 33 | 34 |
| 51-60 | 20 | 23 | 21 | 23 | 22 |
| Over 60 | 7 | 10 | 15 | 13 | 11 |

| Region | 1997 | 1998 |
|--------|------|------|
| owa | 16 | 19 |
| WCB-IA | 23 | 26 |
| ECB | 18 | 21 |
| Other | 12 | 16 |
| Nation | 18 | 21 |
| 50-500 | 72 | |
| 500+ | 84 | |

| | | | Ne | twoi | rks | | | |
|--------|--------|-----------|--------|-------------|---------|---------|------|------|
| | Inputs | Feed Mill | Market | Information | Genetic | Far-Fin | Pigs | Othe |
| owa | 7 | 5 | 15 | 6 | 4 | 6 | 11 | 1 |
| WCB-IA | 7 | 6 | 17 | 11 | 6 | 7. | 14 | 1 |
| ECB | 11 | 3 | 13 | g | 9 | 7 | 6 | 1 |
| Other | 7 | 5 | . 8 | 8 | 4 | 6 | 6 | 1 |
| Nation | 8 | 5 | 14 | 9 | 6 | 7 | 10 | 1 |

Percent of Production in Networks

| | Inputs | Feed Mill | | Information | | 1 1 | . v . | Other |
|--------|--------|-----------|----|-------------|----|-----|--------------|-------|
| lowa | 8 | 4 | 18 | g | 9 | 5 | 14 | 1 |
| WCB-IA | 11 | 1 | 20 | 16 | 10 | 11 | 22 - | 1 |
| ECB | 19 | 5 | 17 | 15 | 17 | 8 | 8 | 2 |
| Other | 6 | 12 | 12 | 12 | 8 | 6 | 9 | 1 |
| Nation | 12 | 7 | 17 | 13 | 11 | 8 | 13 | 1 |

We talk about technology adoption being important in keeping up with a changing industry, and one measure of that is artificial insemination (AI). Is AI in Iowa lagging behind the rest of the nation? No. In 1997, 16 percent of the litters were sired by AI. They bumped it up; they expected in 1998 to sire 19 percent of litters by AI, whereas the nation's respective percentages as a whole were 18 and 21. The larger producers came in at 72 percent and

8

84 percent. That's because they have adopted that technology a little more quickly than the rank and file producers.

Another thing we've talked about a lot with mixed acceptance as an innovation has been networking: interdependence, working together to achieve things one cannot achieve alone. We often think of Minnesota being a place where there's a lot of networking going on; it's often been said that the people in Northern European who could get along with one another and be in a co-op immigrated to the Dakotas and Minnesota; anyone who couldn't stand to be in a co-op immigrated to Iowa.

If you look at the different types of networks (tables at left), there are input purchasing, feed milling, marketing, information sharing, genetics, farrow to finish, feeder pigs, or other kinds of producer coops. Again, that Western Cornbelt less Iowa category consists of Minnesota, along with the Dakotas and Missouri. There you see a little more networking activity. But compared to the nation as a whole, how does Iowa stack up? On input purchasing, just a little bit below average. On the feed milling, we do a little less; on marketing we do about the same. This surprised me, as many markets as we have compared to the rest of the nation (e.g., Arizona and South Carolina); we actually do more networking of markets than they do. In information, genetics, and farrow to finish, there is not that much difference. So even though we see ourselves as independent, secretly (on a survey) you guys will admit to working together more than you used to.

1999 Swine System Options Conference

What about marketing contracts? Neil Hamilton is going to talk about that. Iowa and Minnesota are the heart of price discovery right now.

In 1997, Iowa precommitted 41 percent of the hogs sold. The national average (again, excluding big ones) was 49 percent. We're a little bit lower on this than everyone else, but not much different from the Western Corn Belt, and higher than the Eastern. In 1998, everyone jumped up a little bit.

Our estimated total for the nation in 1997, with the large producers thrown in, was that 57 percent of the hogs were under some sort of prearranged agreement, either owned by the packer or under contract. Our estimate for 1998 was close to two-thirds. Glenn Grimes completed a survey on January 1999 marketings, and those numbers are still very close to our 1998 estimates.

As far as packer ownership and contracting, our numbers would suggest that 33 percent of the hogs are on the open market; Glenn's survey said it was about 36 percent. We asked those who did not have a contract, "If you were offered one today, would you be interested in signing one?" And as you you can see, 55 to 60 percent said yes. Will the use of contracts increase? Very likely. When packers start offering them again, there are people out there who'll be interested in looking into it.

Now let's discuss whether Iowa is going to stay the nation's leader. Are we going grow? We asked, "How many hogs are

Percent of Marketings Pre-committed to a Packer

| | | | Not Currently |
|--------|------|------|----------------|
| | 1997 | 1998 | But Interested |
| lowa | 41 | 46 | 57 |
| WCB-IA | 42 | 48 | 60 |
| ECB | 35 | 34 | 55 |
| Other | 75 | 75 | 63 |
| Nation | 49 | 52 | 58 |
| 50-500 | 82 | | |
| 500+ | 92 | 1 | |

Percent Change in Average Sales

| | 1996-1997 | 1997-1998 | 1997-2000 |
|--------|-----------|-----------|-----------|
| lowa | 10 | 23 | 17 |
| WCB-IA | 7 | 16 | 23 |
| ECB | 4 | 12 | 32 |
| Other | 9 | 10 | 35 |
| Nation | 7 | 16 | 26 |
| 50-500 | 18 | 27 | 66 |
| 500+ | 19 | 13 | 27 |

you going to market in 1996, 1997, and 1998 (the survey was done in March and April 1998). And how many do you plan to market in 2000?

I found this interesting, and a little disturbing. Iowa producers grew from 1996 to 1997 by 10 percent, more than anyone but the very largest. They grew and sold hogs in 1997. They then grew 23 percent from 1997 to 1998; that's the bad news.

9

Percent of Production by Price Level With \$2.50 Iowa Corn

| Region | \$37 | \$40 | \$43 | \$46 |
|--------|------|------|------|------|
| lowa | 7 | 30 | 62 | . 84 |
| WCB-IA | 9 | 34 | 60 | 85 |
| ECB | 17 | 40 | 66 | 84 |
| Other | 6 | 26 | 52 | 65 |
| Nation | 10 | 33 | 61 | 81 |
| 50-500 | 6 | 21 | 61 | 96 |
| 500+ | 9 | 51 | 89 | 98 |

Limitations to Expansion, 1=No Effect, 6=Major Effect

| | Facility | Operating | Good | Local | Environ | No one to | Market | Forecast | Afraid of |
|--------|----------|-----------|-----------|------------|---------|-----------|--------|----------|-----------|
| · | Loans | Loans | Employees | Opposition | Regs | take over | Access | Profits | Big Farms |
| lowa | 3.33 | 3.02 | 2.95 | 2.84 | 3.57 | 2.80 | 2.91 | 4.18 | 2.80 |
| WCB-IA | 3.29 | 3.02 | 3.20 | 3.56 | 4.12 | 2.78 | 2.99 | 4.13 | 2.94 |
| ECB | 2.85 | 2.61 | 3.24 | 3.23 | 4.03 | 2.66 | 2.77 | 4.03 | 2.94 |
| Other | 3.10 | 2.87 | 3.27 | 3.34 | 4.23 | 2.78 | 3.43 | 4.10 | 2.96 |
| Nation | 3.15 | 2.88 | 3.15 | 3.22 | 3.95 | 2.75 | 2.97 | 4.11 | 2.90 |

Selling hogs in 1998 wasn't such a good idea. But then between 1997 and 2000, Iowa production actually drops. Producers are saying, "I produced more hogs in 1998; and I'm not going to produce them in the year 2000." The rest of the nation grew a little more slowly in 1998, but then they planned to produce 23 to 35 percent more hogs in 2000 than in 1997; Iowa was not. In this producer survey, Iowa producers planned to peak in 1998 and then get out. The question is whether they got out before the fourth quarter of 1998. If you look at the bigger producers, you'll see that they have some aggressive growth plans.

Now, I imagine all those 2000 plans are being reevaluated, if not totally scrapped, as we speak. No doubt last fall's prices had an impact on those plans.

The other thing we asked people is what their stay-in price is. If the price of corn in central Iowa is \$2.50 per bushel, what price would you need to stay in business for five years? This information is shown by percentage of hogs. So at \$37, 7 percent of Iowa's hogs would stay in. The Western Corn Belt was the same, and the Eastern Corn Belt was a little higher; the largest ones are going to be out of business, too. If you get to \$37 hogs, it won't last because no one will produce at that level.

Let's take it up to \$40. About 30 percent (these have already been added in), the very largest producers, say they'll still hang around. At \$46, 84 percent of Iowa producers will stay in. (We've averaged \$47 to \$48 over the last decade.) Sixteen percent will not be here if \$46 is all we can do. That's consistent with earlier graphs. Basically producers would rather sell corn at \$2.50 than raise the hogs.

What, if anything, is limiting my expansion for growth, if in fact that's an objective? This table shows "no effect" ranging up to "major effect" for limitations such as facility and operating loans, good employ-

1999 Swine System Options Conference

ees, local opposition, environmental regulations, no one to take over the business, market access, forecast profits, and fear of big farms. Were people willing to quit just out of fear? I'm proud to say that's a low score. We're not quitting just because there's a bully in the neighborhood. Facility loans are a concern. (Some of the options you'll talk about later today at this meeting will make facility loans less of a concern. They've found a way to lower it.) Local opposition to local producers isn't a concern. We do worry about environmental regulations a bit; and you've got be profitable. Across the Western Corn Belt, responses were similar; you get to the rest of the nation as a whole, and there's not a lot of difference. Where does that leave us? There's nothing about Iowa's rank and file producers that appears to be different from any place else, if you look at technology like AI, use of networks, and the like. We're the same as peers in other states. We may be different than bigger producers who have different objectives than to have diversified farms. It gets down to inherent advantages like competitive grain prices, which Iowa has, and things like management. That's what you're here to learn about.

Not to get into a heated philosophical debate, but let's think again about separating labor from management. The reason is that we can spend a lot of time working, but when do we have time to think and plan and develop strategies to move our operations ahead if we're always on the skid loader? Access to markets is going to be key to competitiveness; you're probably sitting in a better position than anyone in the country, but it's still a concern. Iowa has an advantage, but one key factor is that we must develop a food chain mentality. This is where the PQA III requirements come in; this is where we may be talking about on-farm HACCP or ISO 9000 standards in our type of systems. You need access to technology, appropriate for the operations you are managing, not just the gee-whiz little gadgets that come out, but using what is appropriate. Don't think five or six years before you adopt it; evaluate it quickly. If it's what you need, how do you put it to work? Clearly, there's an early adopter advantage; we known that for years. Access to information is important. Internal information, keeping a running tab on where you are within your operation, is critical so you know what's going on and can make decisions, but you also need access to external information. What's going on out there? What's available to me? Are there threats to be aware of?

We're also seeing more privatization of information. The work's not all being done at land grants and given to you at relatively low cost; how do you access other information?

Knowledge-based decision making is another element. That means smart people win, the thinkers who have internal sources of information, who can make decisions that make profits will come out ahead. You must use your gray matter to make decisions that make profits. You have to build that human capital and build the skills to make profitable decisions.

Let's go back to this issue of labor and management. If you have a high-labor system, maybe that's fine. But where do you have time to think, learn, come to conferences, to share information with peers, and pick up new ideas to take home and use? If you're counting on a return to management on that bottom line, take your revenue and subtract feed and facility cost and everything else, and what's left you can call return to management. And if it comes out positive, that means you managed during that year; you made decisions.

To wrap things up, let's look at management for the millennium. This involves operational issues and attention to details daily. That's what you people do best on an ongoing basis. The eye of the master still has an important role.

You have tactical means of developing efficient production systems around the resources you have, but that includes financial management and risk management. How do you balance those to achieve your long-term goals? Strategic management means doing the right thing; that implies being consumer driven and probably looking at appropriate alliances, in order to get something you can't get on your own. That may mean access to a food chain, access to private information, and maybe access to a low-cost input or technology, and goal-driven decisions. Part of strategic management involves setting goals for your business and your family and then making decisions to get there.

Finally, think about innovative management, defined here by a Wayne Gretzky quote you've all seen. Gretzky is great because he "skates to where the puck is going to be, not where it is today."

These are some challenges. If Iowa's going to remain a leader, with producers in the driver's seat, it does come back to them and the decisions they make. The resources are clearly here. Packing facilities is one part of that; grain costs and the ability to develop production systems that incorporate livestock into a cropping system are other advantages. But the key comes back to management decisions.