

Thinning the Herd

Are large pork producers edging out their smaller competition?

By Jan Tegler

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he answer to that question, put to us by the editors of this edition of *U.S. Agriculture Outlook*, in a word is – yes.

Less than five decades ago, there were more than 1 million hog farms in America. Today, the number hovers just above 63,000, according to the U.S. Department of Agriculture's (USDA) Census of Agriculture. Moreover, the Census and other sources reveal that the annual number of hogs and pigs raised has more than doubled since 1987 – a period during which the total number of domestic hog farms has decreased by roughly 75 percent.

USDA data for 2013 indicates that the industry is larger in economic terms as well, with gross income for 2013 measured at more than \$23.4 billion a historic high. Looking forward, the Department of Agriculture forecasts a record 10.9 million tons worth of domestic pork production for 2015. By any metric, American pork is more abundant than ever but the herd of small traditional producers has thinned severely, losing market share to larger, commercial entities.

Consolidation is prevalent in nearly every industry throughout the developed world, driven by global demand, technological progress, economies of scale, flows of investment, and other competitive forces. Thus, it comes as no surprise that agriculture, while unique in some regards relative to other industries, mirrors the trend toward fewer, larger players across all of its major sectors, including pork production.

The ongoing inversion of the U.S. pork industry is a phenomenon that overtook it more rapidly than most realize. To understand how quickly the change came about, we chatted with industry experts in academia and at the USDA, and with producers themselves. We also asked the question, is there a role for small pork producers in the future?

THE WAY WE WERE

"We had as many as a million hog farms as recently as 1967," said Ron Plain, Ph.D., professor of agricultural economics and extension economist at the University of Missouri. "We're now down to 63,000 or so today. There was a very quick decline in the number of producers in the 1980s and 1990s. Technology was the key driver of change."

In the decades following the 1960s, technology – specifically swine nutrition – advanced to the point that hog production could move from pasture to barn, Plain explained.

"As long as pigs were outdoors, it was difficult to put together a really large-scale operation successfully. Once pigs were moved indoors, the cost-effectiveness of large buildings began to take over and we got what followed – fewer hog farms and larger operations."

Christopher Hurt, Ph.D., professor of agricultural economics at Purdue University, concurred, attesting that "it only took about 15 years [1985 to 2000] for the industry to move from a primarily family farm business to an industrial-scale industry dominated by large corporate producers."

Indeed, Hurt penned a widely respected article in 1994 chronicling the "Industrialization in the Pork Industry." As he notes, structural change in agriculture had come earlier to other sectors. The poultry industry, for example, had moved toward vertical integration in the 1950s. It was expected that the pork industry would follow suit, but change didn't really occur in rapid fashion until the 1980s.

Examining industry data, Hurt illustrated just how quickly change was overtaking the pork business.

"In 1980, 670,000 farms produced hogs. Only 236,000 such farms remain. Just think – that's a 65 percent out-migration in a 14-year period," Hurt wrote in his 1994 article.

Posing the question – "Who is leaving the industry?" – Hurt concluded that small farms were migrating away from pork production in huge numbers.

"Of the 434,000 farms that have left the industry since 1980, most (85 percent) had [fewer] than 100 hogs in inventory. The remainder were under 500 head of inventory," Hurt wrote.

The industrialization, specialization, and verticalization of the commercial pork industry became apparent just as quickly, according to Hurt. The emergence of megahog operations (integrators), a rapid surge in contract production, and movement toward vertical coordination of production and processing combined with an inflow of capital from investors attracted by the structural shift in the sector.

In addition, the geographic concentration of pork production began to change, Hurt noted. North Carolina, long known for its integrated poultry industry, led the trend toward industrialization.



While traditional hog production remained centered in the hog-corn belt of the Midwest, Smithfield Foods (America's No. 1 pork producer today, boasting the largest slaughterhouse and meat-processing plant in the world) opened new, specialized facilities in North Carolina in the 1980s. The firm focused on vertical integration in pig production, allowing it to control the development of its pork from conception to packing.

Smithfield's megahog operation was a clarion call among many signals to the rest of the industry. Pork production was changing. Farmers had to decide whether they were large enough and had potential to expand and keep pace or leave the business. As we've already illustrated, most small, traditional operators departed.

The Freese family is a good example. Betsy Freese, the executive editor of *Successful Farming* magazine and author of the annual "Top 25 U.S. Pork Powerhouses" report, grew up on a hog farm in northeastern Maryland.

"What has been eliminated for the most part are the commercial farms like the one I grew up on in the 1960s and 1970s," she said. "We had 120 sows, farrow to finish. We sold our hogs to Hatfield Packing (now Country View Family Farms) in Philadelphia for market hogs.

"Basically no one has a commercial farm of that size anymore," she continued. "You can't make a living. My

The last several decades have seen a steady decline in the number of small farms producing pork and an increase in the number of farms with 5,000-plus head of hogs. At the same time, the number of hogs and pigs raised in the United States has doubled since 1987.

father quit raising hogs in the mid-1990s. It was hard for him to even get a slot with a commercial packer. Unless you had enough production that you were able to send a trailer load of market hogs per month, they didn't want to mess with you."

Freese added that the shift she experienced on the East Coast was mirrored all over the Midwest.

"There used to be hog buying stations scattered around Iowa where small family farmers would take their market hogs. Once the station gathered maybe a couple hundred hogs from five or six different farmers, they would take those to the plant. Those stations are gone."

BIGGER IS BETTER

The USDA's Census of Agriculture, compiled by the department's National Agricultural Statistics Service every five years



A sign outside of the headquarters campus of Smithfield Foods, Inc., in Smithfield, Virginia. Smithfield Foods is America's No. 1 pork producer today.

since the mid-1980s, provides a range of data that readily illustrates the structural shift in the pork industry and the decline of small commercial hog farms.

Using the "Hogs and Pigs – Sales" data set, a good metric for commercial hog production, one can observe the downward spiral as industrialization took hold. In 1987, the total number of farms with hog and pig sales was 238,819. The Ag Census records for 1997, 2002, 2007, and 2012 tell the rest of the story, with numbers of farms dropping as follows: 112,377; 82,028; 74,789; and to the present 55,882.

Drilling down into the data further, we see that the number of commercial hog farms with sales of 5,000 or more head increases steadily, from 1,630 in 1987 to 7,302 in 2012. Meanwhile, the total number of hogs and pigs sold rises from 96,569,359 in 1987 to 199,115,305 in 2012, more than doubling in 25 years – that, despite two major recessions during the period.

Moving in the opposite direction were operations with fewer than 100 hogs. In 1987, the total was 59,891. By 2012, the total had dropped to 37,470. Significantly, the vast majority of operations with fewer than 100 head were farms with one to 24 hogs. And as Plain observed, those numbers don't tell the full story.

"If you look at the census data, the big chunk of those small operators are really micro-farms with fewer than 25 head of hogs. A lot of them are simply 4-H or FSA [USDA Farm Service Agency] projects – people raising pigs for the experience or to show at a county fair.

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"The amount of pork we produce in the U.S. increases on average about 1.5 percent per year," Plain added. "That's been true for more than 80 years. And the amount of pork produced for consumption has steadily grown throughout the transition period. It's just that now, that pork is being produced on far fewer farms than was the case 30 years ago."

Further insight into just how marginal small commercial hog farms are is evident in the observations of Hurt and Freese.

"The largest 25 pork companies are about 60 percent of the breeding herd, but maybe around 65 percent of U.S. production," Hurt said. "And that is just the biggest 25."

Freese's "Top 25 U.S. Pork Powerhouses" report lists the biggest producers by number of sows. With a total of 3,312,500 among them for 2014, the Top 25 grew by 132,650 sows or 3 percent from 2013.

Quoting the report, "They did this by purchasing existing farms, building new sow farms, increasing the sow density in existing farms, or revamping sow farms that had been sitting empty. All in all, 70,000 of the added sows, or 52 percent, were new to the industry."

Smithfield Foods is No. 1 on the Top 25 list, roughly double the size of the second-largest producer, Triumph Foods. Well-known agribusiness names like Cargill, Maxwell Foods, Tyson Foods, and Hormel Foods predominate, but there are large family-owned operators on the list, too. Make no mistake, however: The big family-owned operations are on a very similar business footing as the more widely known commercial players, said Freese.

"You incorporate not because you're big and integrated and massive, but for liability, etc.," Freese explained. "Maschhoffs [The Maschhoffs] claims to be the largest family-owned hog farm. Christensen Farms, part of Triumph Foods, are probably the second-largest family-owned company in the pork industry. They are tightly controlled and owned by family members, but have a large number of employees and focus on large-scale professional production like the integrators."

These family-run titans are the exception, though. As Freese pointed out, just because a major pork producer has "family"

attached to its name doesn't mean mom and pop are behind the operation. Country View Family Farms is a good example, she said.

"That's Hatfield Packing out of Philadelphia. They took their production side and gave it this fuzzy name. That's done so the consumer thinks, 'These are family farms.' In this case, it's strictly vertical integration – all owned by Hatfield Packing."

The contemporary structure of the hog industry is as follows, according to Freese: At the top are integrated producers. These are complemented by a much smaller but still sizeable segment of contract producers – farmers who raise hogs for the integrators. This segment has grown too over the last 25 years.

"Some of them would own sows but usually they are just feeding hogs on contract," Freese noted. "Then there's the very small subset that own hogs for organic production or show-pigs."

NICHE PORK

In answer to the question – what role is left for small pork producers? – everyone we spoke with was in agreement. Niche markets such as those that favor organic/specialty pork or the show-pig industry are where producers with fewer than 400 sows can carve out business.

As in many other businesses, niche or "boutique" products command a premium. The higher margin makes doing business on a small scale possible. The domestic market for organic foods has grown significantly in the last decade as some American consumers join the movement to meat produced without hormones or growth promoters.

But specialty or organic pork is also attractive to foreign markets. More than 20 percent of American pork production is sold for export. A slice of that market is devoted to pork that Americans don't generally consume.

Berkshire hogs are purebred swine derived from a unique stock in Berkshire, England. Originally exported to the United States in the early 19th century, this purebred animal was introduced to improve the quality of American herds. By 1875, the American Berkshire Association (ABA) was founded to maintain the breed purity of Berkshires via a national registry.

In the decades that followed, American pork producers emphasized carcass leanness while sacrificing meat quality. Consequently, Berkshire pork, like many other heirloom styles, all but vanished from the domestic table. But the ABA has worked for more than a century to "protect pedigree integrity and promote the importance of purebred animals."

There is a growing taste for Berkshire pork once more in America and ABA now counts 700 members nationally. According to association spokesperson Amy Smith, about



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COMFORT THAT NEVER QUILTS



Above: A sow nurses her litter of piglets. Small pork producers average fewer piglets per litter than larger hog farms, which translates into fewer pigs they can produce to sell.

Right: Third generation farmer C.J. Isbell takes pride in the feed and the way he raises his pigs in pastures at Keenbell Farm, Rockville, Virginia. With interest in locally and organically raised foods growing, Isbell finds it a challenge to expand fast enough to meet demands for his pasture-raised pigs.

half of the members produce Berkshire for meat and sell commercially to farmers' markets, high-end restaurants, and supermarket chains. They also sell significant quantities to the Japanese.

"A lot of our pork is exported to Japan but the domestic side is also growing," she said. "The Japanese like high-quality meat across the board. Where Americans are kind of afraid of marbling in prime beef and pork, the Japanese look for that."

Maria Kawulich and her husband, Donald Longenecker, owners of Creek Place Farms in Bowmansville, Pennsylvania, raise 110-140 Berkshires per month for commercial sale with an average herd of 145 sows. The two founded Creek Place Farms together and operate it strictly as a business, selling most of their Berkshires for breeding stock.

"We've developed our part in this niche market," Kawulich said. "We now sell predominantly what are known as feeder pigs. It's basically a starter pig for people. We do all our own breeding in house, the farrowing or birthing and raise the hogs to a certain age. At that point we sell them. Then the buyer finishes them. From there they go directly to CSAs [community supported agriculture], farmers' markets or specialty boutiques, or to restaurants in New York."

Like most on the specialty side of the industry, Kawulich and Longenecker are passionate about their organic production, raising purebred hogs that reproduce in smaller numbers than industry-raised pigs and take longer to reach maturity and breeding age. While that limits output, it does yield the quality demanded by premium customers, and, Kawulich believes, fuels the market.



"I think we've just scratched the surface," she affirmed. "I think there's so much opportunity not just in Berkshire but in niche pork as a whole. Producing products closer to where they will be consumed is cost-effective and adds value for customers. So many people want a local source. From a food-safety standpoint, the closer it can be produced to its consumer, the safer it is."

Other purebred swine are growing in popularity as well. Pasture-raised pork is also gaining traction – an interesting return to the tradition the industry abandoned and yet another niche. The show-pig industry is not to be ignored either, Freese argued.

"It's a separate industry from the commercial producers, but there are a lot of people who have smaller farms selling show pigs for 4-H and FSA. They wind up as pork too."

OUTLOOK

While there does seem to be a role for small producers in niche markets, pork experts are unanimous when it comes to the future structure of the industry. Consolidation will continue.

"We have written regarding how the industrial model of animal production is expected to dominate globally in the future," Hurt stressed. "Looking ahead, the biggest growth potential is going to be in global chicken and pork production."

Plain agrees the trend toward larger operations will continue and points to a prime driver of the growth.

"As the size of the hog farm goes up, the number of pigs per litter goes up. That's one reason it's very difficult for small farms to stay in business. Last year, those that had fewer than 100-head of hogs in inventory averaged 7.75 pigs per litter. Farms with 5,000-head of hogs or more averaged 10.28 pigs per litter. So the large operations have 2.5 more pigs per litter to sell than the smaller farms and that nets a lot more money. That also drives investment toward larger operations." ■