



Global Mega Producer

By Ann Hess

FIRST IT WAS tariffs, trade and African swine fever. Now it is COVID-19 that is creating great uncertainty in global swine markets. Since National Hog Farmer published the 2019 Global Mega Producer list, there have been severe disruptions to the global pork supply chain, and there will no doubt be more on the horizon.

The global swine industry will most likely transform significantly over the next year, and all eyes will be on these leading pork production companies to see how they weather the storm. Over the next seven pages, we will further examine these 34 companies, take a comprehensive look at global pork production numbers and get to know our 2020 Global Mega Producers better.

Here are key findings on 2020 Global Mega Producers:

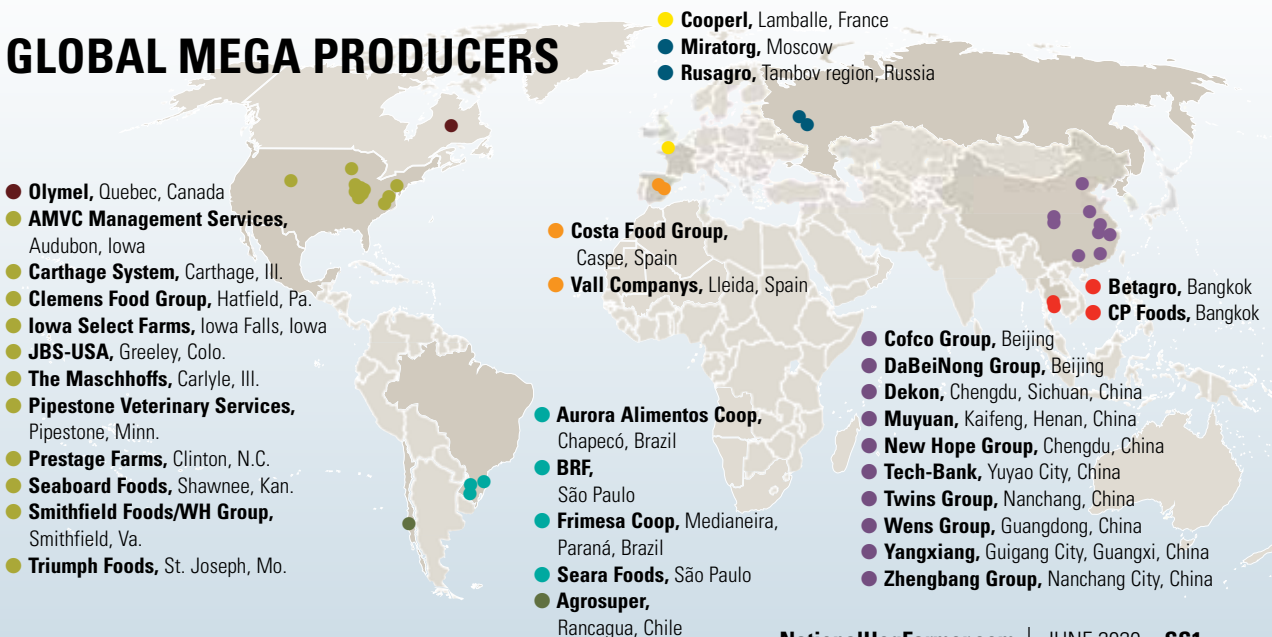
1. There are now 34 mega producers that together own more than 11.5 million sows, adding more than 2.5 million sows to global production.
2. Wens and Muyuan are now at the top of the GMP

list, ahead of Smithfield Foods, but it should be noted that Smithfield is no longer publicly releasing its production numbers and 2019 report figures were used. Muyuan doubled its production to go from fourth on the list in 2019 to second in 2020.

3. The mega producers remain spread across nine countries, with China adding three companies, Brazil two, and the United States one to the 2020 Global Mega Producer list.
4. The United States and China are tied for having the most mega producers, with each having 11 on the list.
5. As for significant increases in sow numbers, China had some of the biggest jumps in herd size: Muyuan grew by 603,000, CP Foods by 350,000 and New Hope by 340,000.
6. Clemens Food Group, Dekon, DaBeiNong, Twins Group, Seara Foods and Frimesa Coop made their debut on the 2020 GMP list with 110,000; 100,000; 103,000; 200,000; 213,000; and 120,000 sows, respectively. **NHF**



GLOBAL MEGA PRODUCERS



Wens

China — 1,300,000 sows

Established in 1983, Wens has become a modern agricultural firm, with its main business in livestock farming. Other supporting segments of the business include slaughtering, food processing, manufacturing of modern agricultural husbandry equipment, production of animal medicines, and the circulation and retail of fresh food and products. Wens Group became a listing company in the stock market in 2015 and owns shares of 270 branch companies and 50,000 co-operating family farms in more than 20 provinces across China. In 2019, Wens Group marketed 18.51 million hogs.



Muyuan

China — 1,283,200 sows

Muyuan was established in 1992, with its main business covering hog farming, feed processing and slaughtering. As of the end of 2019, Muyuan had 50,000 employees and more than 180 subcompanies. In 2019, the company marketed 10.25 million hogs. Muyuan has also extended its hog slaughtering sector by setting up three branch companies, including Muyuan Meat Co. Ltd. in 2019.



Smithfield Foods

United States — 1,241,000 sows

Smithfield Foods no longer makes sow or other production numbers publicly available, so these numbers have not been updated from the 2019 report. Based in Smithfield Va., the company was started in 1936 by the Luter family. Smithfield employs more than 54,000 people in North America and Europe. The company ships meat exports to 4,600 customers in 40 countries around the globe. Smithfield is a subsidiary of WH Group, and these sow numbers are in addition to WH Group's other company sow production numbers.



CP Foods

China — 1,150,000 sows

Established in 1921, the Charoen Pokphand Group is a diversified transnational conglomerate that consists of three core businesses that operate in the agri-food industry, retail and distribution, and telecommunications. The conglomerate is also involved in more than 10 additional industries, including finance, real estate, pharmacy, etc., in more than 100 countries and regions. The CP Group has set up more than 400 companies with 80,000 employees. The sow inventory of CP Group globally has reached 1,150,000. In 2019, the China Area of CP Group marketed 3.5 million hogs mainly produced in Hubei, Henan and Shanxi.



New Hope Group

China — 500,000 sows

New Hope Group was established in 1982 and has more than 600 branch companies and subcompanies, with more than 80,000 employees in more than 30 countries and regions globally. The subcompany — New Hope Liuhe Corp. Ltd. — became a listing company in 1998. New Hope Liuhe is focused on steady development of its business, which covers feed, farming, meat products, finance and investment in nearly 20 countries and regions all around the world, including Vietnam and the Philippines. In 2019, New Hope Liuhe marketed 3.54 million hogs.



Zhengbang Group

China — 500,000 sows

Founded in 1996, Zhengbang Group is a national agricultural industrialization enterprise that currently owns more than 580 branch companies and subcompanies, with more than 60,000 employees in 29 provinces, cities and autonomous regions across China. Its subcompany, Jiangxi Zhengbang Technology Co. Ltd., was listed in the stock market in 2007; and its business range covers many areas such as farming, feed, animal medicine, food, dairy and finance. The company currently owns 122 medium- or large-scale pig farms and 14 feed mills. In 2019, 5.78 million hogs were marketed.



Triumph Foods

United States — 492,000 sows

Triumph Foods was formed in 2003 by a group of the largest U.S. independent pork producers, with operations beginning in 2006. It is now the second-largest pork processor in the United States. Today, the business includes one processing facility in St. Joseph, Mo., along with a joint venture plant with Seaboard Foods in Sioux City, Iowa, as well as three further processing facilities under Daily's Premium Meats.



BRF

Brazil — 388,500 sows

Founded in 1934, BRF is one of the biggest food companies in the world, created from the association between Sadia and Perdigão, two giants in the food market. The company's sale segments include Brazil, Latin America, the Middle East and North of Africa, Africa and other segments. These segments include sales of all distribution channels and operations subdivided into poultry, pork, processed and other sales. BRF produces 150,000 metric tons of pork annually and 10,500 metric tons of feed.



Pipestone Veterinary Services

United States — 385,000 sows

In addition to 285,000 sows in the United States Pipestone Veterinary Services also has ownership of 60,000 sows in China and 40,000 sows in Mexico. Pipestone Veterinary Services has provided quality care to animals, large and small, since 1942. Pipestone System shareholders are farmers in the U.S. Midwest.



Seaboard Foods

United States — 345,000 sows

Seaboard Foods is an integrated food company producing and marketing pork both domestically and internationally. Seaboard has processing facilities in Guymon, Okla., and Sioux City, Iowa, as well as further processing at its co-owned facility with Triumph Foods, Daily's Premium Meats. Seaboard has 5,600 employees and operates in numerous states.



Cofco Group

China — 250,000 sows

Based in China, Cofco Group is a state-owned enterprise of agriculture, grain, oil and foodstuffs, with a fully integrated value chain in global distribution in more than 140 countries and regions. Cofco Meat Investment Co. was listed in the Hong Kong stock market in 2016, with the business covering feed production, hog farming, slaughtering, production and sales of fresh pork and meat products, and import and sales of frozen meat products. The company owns two core brands for fresh pork and meat products, Jia Jia Kang and Wan Wei Ke. Cofco has a production base of 80 farms, two slaughter plants and four meat processing plants across China. In 2019, it marketed 1.99 million hogs.



Cooperl

France — 245,000 sows

Cooperl is an agricultural cooperative with headquarters in the Brittany region of France. The cooperative was founded in 1966 by 24 farmers, and today it has 2,700 members producing 5.8 million pigs. It has invested in specialized pig production through feed mills, packing plants and stores.



Iowa Select Farms

United States — 242,500 sows

Iowa Select Farms is the largest privately owned pork production company in the United States. The company has 242,500 sows and markets more than 5.5 million hogs annually.



Seara Foods

Brazil — 213,000 sows

Founded in 1956, Seara Foods is a Brazilian food-producing and processing company which specializes in production, development and distribution of meat products. Since 2016, its parent organization is JBS. JBS S.A. was established as a slaughtering business by rancher José Batista Sobrinho (JBS) in Anápolis, Brazil, in 1953. In 2000, Seara Foods became the No. 1 pork exporter in Brazil.



Vall Companys Group

Spain — 213,000 sows

The Vall Companys Group is a family-owned agribusiness firm established in 1956. In 2019, the company produced 4.8 million pigs, along with 80 million head of poultry, 2 million metric tons of feed and 503,000 metric tons of flour. The company works with 2,100 associated farms and 6,500 collaborators. Vall Companys has developed an integration model, in which farmers provide facilities and labor and the rest of the services are provided by the company.



Tech-Bank

China — 200,000 sows

Tech-Bank Co. Ltd. was founded in 1996 and has developed into five business segments: pig farming, aquatic feed, biological products, fresh food and engineering construction. Tech-Bank went public with an initial public offering in 2007. Hanswine Group, which belongs to the pig breeding segment of Tech-Bank, marketed 2.44 million hogs in 2019.



Twins Group

China — 200,000 sows

Founded in 1998, Twins Group is a nationwide large-scale agriculture and livestock business specializing in feed research and production, hog farming, grain trade and more. The firm currently has more than 100 branch companies and more than 9,000 employees in 21 provinces, cities and autonomous regions across China. In 2018, the company made a breakthrough with feed sales reaching more than 10 million tons. In 2019, it marketed 2 million hogs.



The Maschhoffs

United States — 186,000 sows

The Maschhoffs family farm dates back to 1851 in Carlyle, Ill. Today, more than 4 million pigs are raised each year, combining company farms and independent production teams. The Maschhoffs is one of the largest family-owned pork production networks in North America.





Carthage System

United States — 185,000 sows

Established in 2000, the Carthage System is managed by Professional Swine Management in Carthage, Ill. With a long-standing history of successfully partnering with farm families across the Midwest looking to invest or expand their pork production, the company is committed to helping these families remain an important part of our nation's food supply.



Aurora Alimentos

Coop

Brazil — 180,000 sows

Brazil's third-largest pork producer, Aurora Alimentos consists of 11 affiliated Brazilian agricultural cooperatives that manufacture pork, poultry, dairy, pasta and vegetable products and supplements for animal feed. The company exports to about 70 countries worldwide. Aurora Alimentos is a company of collective ownership and democratic control, such as a cooperative center. It provides support to cooperatives — which, in turn, support farmers. Today, the 11 member cooperatives represent more than 100,000 families.



Prestage Farms

United States — 180,000 sows

Prestage Farms was founded in 1983 by Bill and Marsha Prestage, and it is a leader in both pork and turkey production. In March 2019, the company opened its newest processing facility near Eagle Grove, Iowa. Prestage is committed to customer satisfaction, and it has operating divisions across five states in the United States.



JBS-USA

United States — 168,000 sows

Headquartered in Greeley, Colo., JBS USA has 100,000 team members who provide more than 280 million daily meals to consumers across the globe. JBS USA is the majority shareholder (78.3%) of Pilgrim's Pride Corp. (Pilgrim's), with operations in the United States and Mexico; the owner of Moy Park, a leading poultry and prepared foods company in the United Kingdom and Europe; and the owner of Tulip Ltd, a pork and prepared foods company in the United Kingdom. JBS also partners with more than 40,000 independent family farmers and ranchers who supply its operations with livestock and poultry, and contributed more than \$18 billion in livestock payments to rural economies across the globe.



Miratorg

Russia — 150,000 sows

Miratorg is currently in its second year of a project of building new farms, feed mills and a slaughter plant to increase production to 250,000 sows. Miratorg is also Russia's No. 1 beef producer, a producer of ready-made and frozen meals, and is among the top 10 chicken producers. Miratorg is fully integrated from farm to plate with land for crop production, feed mills, farms, slaughter, fresh meat processing, further processing including ready meals, distribution and branded supermarkets. Committed to following international standards for production, environment and management, Miratorg is focused on developing domestic and export markets as meat exports continue to increase year over year.

МИРАТОРГ

Yangxiang

China — 150,000 sows

Founded in 1998, Yangxiang Corp. Ltd. has 53 branch and subsidiary companies with more than 5,000 employees. It is a technology-based agricultural enterprise with a fully integrated value chain, covering breeding pigs, hogs, swine semen, swine feed and pig farming equipment. In 2019, Yangxiang marketed 1.5 million hogs.



AMVC Management Services

United States — 149,000 sows

AMVC Management Services prides itself in offering producers a professional and progressive systems approach to quality pork production. AMVC has a swine management presence in 10 states and manages 42 sow farms. AMVC has 20 veterinarians on staff and employs 700 people.



Agrosuper

Chile — 140,000 sows

Founded in 1955 as an egg farming business in Lo Miranda in the O'Higgins Region, Agrosuper has expanded into the production and marketing of chicken, which is currently marketed under the Super Pollo brand. In 1983 the company entered the swine business, producing pork mostly for international markets. In 2011, the firm assumed majority control of the turkey production company Sopraval.



Betagro Group

Thailand — 130,000 sows

Founded in 1967 under the name of Betagro Co. Ltd., Betagro Group started its business with its first feed mill in Pra Pradaeng, Samut Prakan province. The group has grown substantially ever since, first by establishing a livestock production facility in Pak Chong, Nakhon Ratchasima province; and then expanding further into



the integrated agricultural sector with a complete production base in Lopburi province, which includes everything from manufacturing and livestock farming to animal breeding. Betagro has also expanded actively into other related industries to complement its core business, such as wholesale foods, retail foods, property development and the Betagro Science Center.

Costa Food Group

Spain — 130,000 sows

Founded in 1966, Costa Food Group is a Spanish family-owned agribusiness food group. Costa Food Group has 1,500 permanent employees, 2,000 integrated workforce members and more than 650 integrated farms. The firm exports to 107 countries and produces 30,000 tons of cured, cooked and sliced cold meat; 130,000 sows; 154 million kilos of processed pork; 3 million fattening pigs and more than 1,250,000 hams each year.



Rusagro

Russia — 126,000 sows

Russia's second-largest pig producer, Rusagro has production facilities in the Tambov region, with 60,000 sows; the Begorod region, with 45,000 sows; and the far east of Russia, with 21,000 sows. Rusagro owns its own slaughter and processing plants. The firm is also one of the largest crop production companies in Russia and farms 670,000 hectares (1.6 million acres) of land. Rusagro is a public company (listed on the London Stock Exchange) and has continued growth plans in both Russia and China.



Frimesa Coop

Brazil — 120,000 sows

Founded in December 1977, Frimesa Cooperativa Central was created with the merger of the Coasul, Confrabel, Camdul and Coopersabadi cooperatives, which formed the Central Cooperative Sudcoop. Its objective was to boost agribusiness and integrate the power of rural cooperatives, in order to keep producers in the field, through production, manufacturing and diversification. Frimesa has five industrial units and numerous receiving and distribution stations, located in seven Brazilian states. In 2017, the construction of the largest packing plant in Latin America began, with 141,000 square meters on a 115-hectare (284-acre) area, with slaughter capacity for 15,000 pigs per day.



Clemens Food Group

United States — 110,000 sows

Clemens Food Group is a family-owned, private company celebrating 125 years of business within the pork industry. It has 4,000 team members. Hog operations (Country View Family Farms) are located in Pennsylvania, Indiana and North Carolina. In addition to hog production, the company has two pork processing facilities harvesting more than 6 million hogs per year: one facility in Hatfield, Pa.; and the newest in Coldwater, Mich. Clemens also operates a value-added facility in Emmaus, Pa., and sells a variety of fresh and value-added pork products to the retail, food service, club, convenience and international marketplaces.



Olymel

Canada — 106,000 sows

Located in Quebec, Canada, Olymel was founded in 1991 by its principal owner La Coop fédérée (now Sollio Cooperative Group). Over the past 25 years Olymel has pursued an aggressive expansion. Besides various production facilities and distribution centers across Canada, it has offices in Japan, China, Australia and South Korea; employs 15,000 people; and exports to more than 65 countries. Today, Olymel has a capacity of 185,000 hogs per week and 2.4 million birds per week.



DaBeiNong Group

China — 103,000 sows

DaBeiNong Group was founded in 1993, and its business covers three major areas of farming: technology and service, crop technology, and service and agricultural internet. It has more than 120 production sites and more than 300 branch companies and subcompanies. In 2019, the firm marketed 1.63 million hogs.



Dekon

China — 100,000 sows

Sichuan Dekon Agricultural and Husbandry Food Group Co. Ltd. was founded in 2014. Its business covers three major segments: hog farming, high-quality broiler breeding and food processing. Dekon currently owns more than 90 branch companies or subcompanies in 13 provinces, cities and autonomous regions across China. In 2019, the firm marketed 1.5 million hogs.





PORK: BY THE NUMBERS



ALL WEIGHTS EQUAL 1,000 METRIC TONS CARCASS WEIGHT EQUIVALENT

■ APRIL 2019 PROJECTION ■ DECEMBER 2019 ACTUAL ■ APRIL 2020 PROJECTION

TOP PORK-PRODUCING COUNTRIES



CHINA

■ 48,500
■ 42,550
■ 34,000



EUROPEAN UNION

■ 24,225
■ 23,935
■ 24,150



UNITED STATES

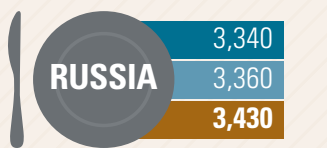
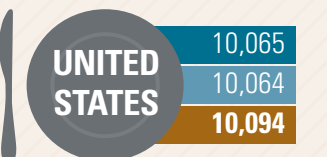
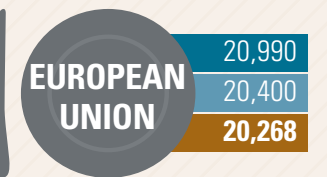
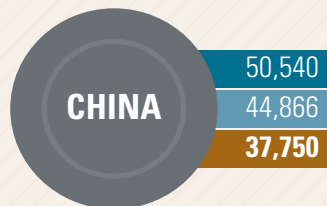
■ 12,401
■ 12,542
■ 13,176



BRAZIL

■ 3,975
■ 3,975
■ 4,130

TOP PORK-CONSUMING COUNTRIES



TOP PORK IMPORTERS

CHINA

■ 2,200
■ 2,451
■ 3,850

MEXICO

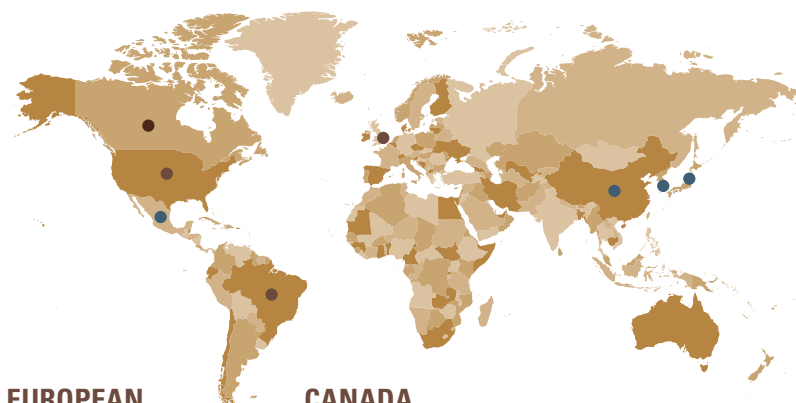
■ 1,235
■ 975
■ 950

JAPAN

■ 1,525
■ 1,493
■ 1,490

SOUTH KOREA

■ 700
■ 694
■ 925



EUROPEAN UNION

■ 3,250
■ 3,551
■ 3,900

CANADA

■ 1,390
■ 1,284
■ 1,375

UNITED STATES

■ 2,801
■ 2,867
■ 3,391

BRAZIL

■ 900
■ 861
■ 1,000

TOP PORK EXPORTERS

National Hog Farmer



SOURCE: USDA FAS

Chinese pork producers make changes quickly

By Ann Hess

Veterinarian shares observations of China's ASF eradication efforts

BEFORE THE COVID-19 pandemic, Tom Gillespie spent his fair share of time in China getting a firsthand glimpse into the African swine fever eradication efforts there.

"ASF is the enemy, and I can't stress that enough on how China, at least the farms that I'm working on routinely, has responded to this challenge," Gillespie says. "It's really a war that they're in, and they have responded accordingly."

A swine veterinarian for more than 40 years and the owner of Performance Health PC, Gillespie, whose home is in Indiana, has spent a fair share of time in the south-central region of China.

While he's still seeing some cultural norms in Chinese pig production such as backyard pigs, Gillespie says he's also seeing a seismic shift from less midsize to more intensive production, especially since ASF.

KNOWING CULTURE IS ESSENTIAL
To understand the whys and hows of ASF in China, one has to understand the cultural aspects that have helped carry this virus around China and countries in Southeast Asia.

"The government wants big units, so they're wanting to change the industry as we speak — and it's changing, it's changing very rapidly," Gillespie says. "Last August I gave a talk to a unit that has 46 sow units today, and their goal is to build 50 new units this year."

Now, with coronavirus on the human side, in addition to ASF in



One production system Gillespie works with in China has changed from a bagged feed system to bulk deliveries, with trucks filling newly constructed bulk bins that are just inside the front gate.

swine, Gillespie says China is learning very quickly about the importance of biosecurity, but it hasn't been easy battling ASF virus.

BATTLING ASF VIRUS

ASFV is a large, enveloped DNA virus with some genotypes being a DNA "arbovirus" (transmitted by ticks; the name comes from "arthropod-borne"). There have been 22 genotypes of the ASFV identified globally and they vary in virulence.

Some high-virulence strains have an impact of nearly 100% mortality in herds, while others show seroconversion with low mortality rates. The virus can infect monocytes and macrophages.

"I've seen, over several weeks, 96% mortality in a finisher barn," Gillespie says. "It likes to get in white blood cells and red blood cells. One drop of blood can have over 300 copies of this virus, so it proliferates quite a bit."

The environmental persistence is characteristic of ASFV. The virus is resistant and persistent in the

environment. Some strains not only survive but also remain infectious across a range of pHs from 4 to 13.

Different studies report virulent activity for ASFV strains stored for more than five years at 41 degrees F, for 18 months at 68 degrees, and between 10 and 30 days at 98.6 degrees. The virus can survive in soils or animal feces for five to six months and up to 30 months in chilled meat.

"I can tell you by March of last year, nobody had had a successful repopulation. First, the producers were trying to quickly react to the initial reporting in August 2018, although it quickly moved around China to depopulate their farms. Depopulation alone created a trying time to get their sites cleaned up," Gillespie says.

"The next step was a struggle in how to 're-pop' and stay clean. Their program at that time was to put some sentinel pigs in and see if there was disease or an antibody response. I participated in a workshop, and one guy had 17,000 sows that he had to depopulate."

“One of the take-homes was, three months was not long enough for the site to be depopulated and cleaned. They had chosen six months, and by August last year I heard positive results on repopulation.

UPDATE ON REPOPULATION

The industry continues to struggle with a site staying clean after repopulation. Some thought is reinfection through semen, or feed — or the site was not cleaned and disinfected well enough, even though it was empty for months.

“We were talking about biosecurity, and I mentioned the rodent program, the bait stations. I said, ‘Who’s in control of that?’ The farm’s response was ‘Well, we hired a firm. They come here four times a year.’ And I said, ‘Well, look at the feed that’s dribbling out of this auger,’” Gillespie says.

“The next day they had temporary plastic bags on the boot of every bin on that farm, a 10,000-sow farm — that’s how quick they will respond to make improvements, because they want to do better.”

Gillespie works with farms in Guizhou province as well as the city of Chengdu (about 350 miles northwest of Guizhou), and says some have gone above and beyond on their biosecurity programs since ASF. For instance, one production system he routinely consults for has the financial means to take much more exhaustive measures.

The first thing the production system did to its site with 10,000 sows was to put up a perimeter fence — even though there are eight to 10 backyard farms just outside the fence, Gillespie says, which is a continuing cause of concern.

They have changed from a bagged feed system to bulk deliveries with trucks filling newly constructed bulk bins that are just inside the front gate.

There is isolation on-site for gilts and boars. They now have in place an intense diagnostic monitoring system for both healthy and sick animals. A dormitory is on-site for the



TOM GILLESPIE

The production system built a new road to separate entry and exit for feed deliveries, and put up car washes for employees to use before driving into the farm. At the front gates, trucks are now getting washed down with disinfectant.

115 employees, including four who are chefs who do all on-site cooking.

SITE ENTRANCE REQUIREMENTS

To get into the site, Gillespie must spend one night of downtime prior to arrival at the farm. He is then required to take two showers — 10 minutes long each, with farm clothes changed in between — and then must spend one more night in isolation and one or two nights in the dormitory before being allowed into production.

“They do lots of PCRs [polymerase chain reactions]. ASFV was officially announced in August in the country, and by mid-November, they had already determined that the employees that do leave to go home for a week or two, when they come back, they were positive — either their hair, hands or the shoes were positive for ASFV,” he says.

“Think about that; in just two to three months, it has seeded itself down at people’s homes, restaurants, towns — everywhere for the person to be positive coming back to work.”

The company whose operations Gillespie visited is now requiring employees to take a daily shower to get into their local headquarters and feed mill, which produces 140 million metric tons annually.

It is building a new road to separate entry and exit for feed deliveries, and are putting up car washes for employees to use before driving into the farm.

At the front gates, trucks are now getting washed down with disinfectant.

They even have a biosecurity lead person to monitor the biosecurity with electronic surveillance in their main “command” room, who monitors employee actions through an extensive camera network.

Gillespie says some measures are making a notable difference. For example, the feed mills are heating feed to try to reduce the presence of ASFV. The serological results have shown that the biosecurity program is making a difference on other pathogens.

At their Sept. 11 and Sept. 22 samplings, besides porcine reproductive and respiratory syndrome diagnostics, other pathogens including classical swine fever, porcine circovirus type 2, toxoplasma, *Mycoplasma suis* and swine chlamydiosis were tested by PCR. The results indicated the animals on the site were negative for all of the tests.

If a site breaks with ASFV, sometimes a “test and removal” approach is performed. This means that any sick animal is tested — usually tissue tests using PCR — and if positive, circle testing and removal are performed. It has not always been successful, though; the thought is based on the slower transmission of the virus within the population.

Gillespie says these changes have been positive to see, but the virus is affecting pork supply on a global basis and people are making changes around the world due to ASF, despite cultural norms.

“We can’t really ignore the human aspects anymore when it comes to biosecurity,” Gillespie says. **NHF**