



# 2019 Sustainability Impact Report

**Smithfield.** *Good food. Responsibly.®*

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# INTRODUCTION



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# A Message to Our Stakeholders

As we reflect on the significant accomplishments of the past year in our 2019 Sustainability Impact Report, we also pause to examine the new reality as a result of COVID-19.

2020 has presented the world with a crisis of immeasurable impact on the health, well-being and sustainability of people, communities and businesses everywhere. In turn, we have seen an increased reliance upon critical industries and companies to provide essential products and services at an immense scale. Smithfield is proud to be one such company with the ability to play a central role in sustainably feeding millions of people amid the COVID-19 pandemic while also implementing aggressive measures to protect employees' health and safety.

Leaders in many organizations have answered the call to deliver solutions that have made a big impact on the frontlines of this pandemic. From healthcare providers, public safety and first responders to food and agriculture businesses, essential industries are adapting to meet the present and urgent needs facing the world.

As a global food company and the world's largest pork processor and hog producer, we recognize that our role in sustainably feeding the world is critically important, now more than ever. We embrace the responsibility that accompanies our expansive capabilities and considerable reach, as well as the evolving characteristics of a safe workplace. Indeed, it is precisely because of our broad scale that we can lead efforts to solve the biggest issues facing our industry, society and planet.

We firmly believe that sustainably produced food is a right, not a privilege. Our report provides a close look at the work we completed in 2019, positioning us to continue delivering on our mission to produce good food the right way.

We are reporting highlights of our accomplishments and the challenges we faced last year across our five sustainability pillars, which represent areas of strategic focus that are important to our communities, our business and to our global place in society. They include the humane treatment of our animals; stewardship of the environment; production of safe and high-quality food; strengthening our local communities; and care of our people.

Last year, we further enhanced our animal care procedures, continuing to build consistent, companywide best practices across our farms, and partnered with industry experts, universities and governments in the United States and internationally on biosecurity protections and feed safety for our animals.

We continued to pursue our ambitious commitment to cut our greenhouse gas emissions 25% by 2025 throughout our entire supply chain, and we expanded our partnerships to reach that goal through our industry-leading manure-to-energy initiatives. We also announced a bold target to certify 75% of our U.S. facilities as zero waste to landfill by 2025 and to reduce the total solid waste we send to landfill by 75%.

We met our food safety and quality targets, achieving Global Food Safety Initiative certification at all applicable facilities and closing out the year with zero product recalls.

In our communities, we expanded our hunger-relief efforts through our signature Helping Hungry Homes® program, with donations to food pantries and food banks we had not reached before and have now made donations in all 50 U.S. states. We provided 24 million servings of protein, to our neighbors in need. These donations contributed to the more than \$30 million we invested in cash and in-kind donations to address the unique needs of our local communities.

We also continued to invest in the hard-working members of our Smithfield Family to build a welcoming, safe and diverse workplace where they can continue to contribute with pride to our mission to feed the world with responsibly made food.

While our 2019 Sustainability Impact Report serves as a look back on our progress, we are prioritizing our path forward and planning for the future. 2020 has presented us with a new and uniquely complex operating environment that we are addressing to become a stronger and more resilient company. We have – and continue to – go to great lengths to protect our team members during the COVID-19 pandemic, as we remain unwaveringly committed to our Smithfield Family as part of our enduring focus on sustainability.

We continue to be steadfast in our dedication to pioneering sustainability best practices because it is the right thing to do, for the world and the communities we serve.

Sincerely,



Kenneth M. Sullivan  
President and Chief Executive Officer  
Smithfield Foods, Inc.





## Q&A with Our Chief Sustainability Officer

Ahead of the publication of our Sustainability Impact Report, we spoke with Stewart Leeth, our vice president of regulatory affairs and chief sustainability officer, about our achievements in 2019 and the opportunities ahead.

### **Q: What sustainability achievements are you most proud of in 2019?**

**A:** It is difficult to look back at our sustainability achievements in 2019 without considering the COVID-19 health crisis facing our society during the creation of this report in the first half of 2020. This pandemic crystallized the importance of modern food production and Smithfield's role as a global protein company operating at the intersection of food security and sustainability. I am most proud that we are nourishing people in a time of crisis while continuing to drive forward-looking sustainability strategies such as support for our communities, clean energy technology and responsible supply chain management. As a sustainability leader in our industry, we set far-reaching goals and targets and are making good on our promise to deliver good food in a responsible way.

In 2019, we saw great progress in each of our sustainability pillars, which focus on animal care, environmental stewardship, food safety and quality, helping communities and our people.

The health and safety of our people continued to be a top priority in 2019 and our injury and illness rates were once again significantly better than the industry average. We recognize that our employee safety protocols must evolve to reflect the constantly shifting landscape, and we continue to innovate and invest in health and safety systems, policies, procedures and training to empower employees to put safety first in all our activities.

Throughout 2019, we continued to lend our support to our communities, improving education and employing veterans. In the fight against hunger, we provided more protein than ever to the people that need it most, donating enough protein for the equivalent of 24 million servings, which represents a major portion of our total cash and in-kind donations valued at nearly \$30 million. Building upon this commitment into 2020, in response to the increased needs during the coronavirus pandemic, we also launched the [Good Food Challenge](#) and donated 10 million pounds of protein, the equivalent of 40 million servings, to food banks across the country through Feeding America.

Finally, our employees drive innovation and are critical to helping us achieve our sustainability goals. Each year, we focus the talents of our people on sustainability through awards programs to recognize team-led projects. Our facilities are recognized for excellence in many areas of sustainability including environmental impact, social significance and operational efficiency. Those efforts by our employees will continue to drive success, and I look forward to seeing what they come up with next.

**Q: Where do you think Smithfield has the greatest opportunity to reduce the impacts of climate change?**

**A:** We recognize that customers and consumers expect companies to take action and do their part in the fight against climate change. As part of our industry-leading GHG reduction commitment — an absolute goal covering our entire supply chain (Scope 1, 2 and 3 emissions) — we are taking a hard look at our impact across our farms and facilities. We work with many external stakeholders to ensure we are responsibly managing all parts of our supply chain including grain production, waste and manure management, packaging and transportation. Supported by [Smithfield Renewables](#), our platform that unifies our goal to reduce greenhouse gas emissions 25% by 2025, we are pioneering new and innovative ways to set precedents for the industry, such as leveraging collaboration to create energy from biogas to power hundreds of thousands of homes and local industries across the country.

**Q: How is Smithfield leveraging partnerships to achieve its sustainability goals?**

**A:** Partnerships are a key part of our overall sustainability strategy and were hallmarks of our successes in 2019. Take energy for example, through our work with [Dominion Energy](#) and [Roeslein Alternative Energy](#), we have been able to leverage existing Smithfield infrastructure to transform methane from manure into renewable natural gas to power businesses and homes in local communities. Last year, we also announced a partnership with [Duke Energy](#) and [OptimaBio, LLC](#) to utilize wastewater as a waste-to-energy source for renewable energy production at our Tar Heel, North Carolina facility, the largest pork processing facility in the world. This \$14 million project will power more than 2,000 local homes and businesses. This is just another step we've taken as an organization to maximize our value while reducing our impact.

**Q: The world's population is continuing to grow. How is Smithfield positioned to best address the hunger needs of 10 billion people?**

**A:** At Smithfield, we have the means to feed future generations while enhancing environmental quality and protecting natural resources. There are those who may have a nostalgia for or want to promote a return to what they perceive to be the good old days of farming and food production. Those views often ignore the realities of the past — the food supply was often unsafe, unhealthy and produced with little regard for the environment, animals or workers. Today, we are addressing the challenges of explosive population growth, increasing global demand for protein, and climate change, all while protecting the environment and ensuring safe, affordable and quality food. As a vertically integrated company, we can trace our entire value chain, from farm to facility to store, to ensure food safety and quality, reduce environmental impacts and create efficiencies while scaling production to meet future demand. We are also piloting projects in emerging technologies, such as blockchain, which will help us continually improve and further eliminate food waste and ensure transparency and efficiency in our supply chain.

# Our Business

**Headquartered in  
Smithfield, Virginia  
since 1936**

We're an American food company with wholly-owned operations in the United States, Poland, Romania and the United Kingdom. We also have a joint venture in Mexico.



More than **54,000** employees globally



## Farming Operations

### Hogs

- **524** company-owned hog farms and **2,132** contract hog farms in the United States
- **64** company-owned hog farms and **1,096** contract hog farms internationally
- **21.7 million** market hogs produced
- **\$474.4 million** contract farm payments

### Poultry

- **Two** company-owned poultry farms and **36** contract poultry farms internationally
- **7.4 million** market poultry produced
- **\$2.5 million** contract farm payments



## Manufacturing Facilities

- **45** U.S. facilities
- **16** international facilities



## Market and Offerings

- **\$16 billion** in sales
- **11.1 billion** pounds of fresh pork, packaged meats and poultry sold
- Across the globe, serving more than **5,200** customers in over **40** countries on every continent (except Antarctica)
- Across the United States, supplying **62** of the top **75** retailers, all of the top **30** foodservice providers and **18** of the top **30** restaurant chains
- High-quality, iconic brands, such as Smithfield®, Eckrich® and Nathan's Famous®, among many others

## Our Mission

We are passionate about producing good food the right way. Our business depends on the humane treatment of animals, stewardship of the environment, producing safe and high-quality food, the vitality of local communities and creating a fair, ethical and rewarding work environment for our people.

## Our Vision

With our culture of responsibility, operational excellence and innovation, we will be the most trusted food and protein company as we sustainably feed people around the world.

## Our Social Purpose

We are committed to improving food security and ending hunger by donating high-quality, nutritious food. We also support other philanthropic solutions in the fight against hunger as well as in the areas of education, veterans and those that align with our sustainability program.

\* All figures reflect 2019 data; dollar amounts are USD. Reporting includes wholly-owned operations in the United States, Poland and Romania. United Kingdom operations are sales focused with no farm or facility locations and are not included in this report.



# Sustainability Strategy

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At Smithfield Foods, we are passionate about producing good food in a responsible way.

Our sustainability strategy is organized by pillars that represent our key areas of focus: animal well-being, stewardship of the environment, safe and high-quality food production, support for the vitality of local communities and the establishment of a fair, ethical and rewarding work environment for our people.

Sustainability initiatives are embedded throughout our business and supply chain. Our guiding principles — Responsibility, Operational Excellence and Innovation — serve as the foundation for the decisions

we make to achieve our goals and interact with employees and other stakeholders.

We believe our efforts create value for a full range of stakeholders, while improving our financial performance. We provide opportunities for thousands of farmers through our contract growing relationships and grain purchases. We employ more than 54,000 people globally, providing wages, training and health and wellness activities. We invest hundreds of millions of dollars each year in capital improvements to facilities and equipment. We also create value in our communities where we pay taxes, make local purchases and create societal value through our

initiatives related to hunger relief, education and support for U.S. military veterans.

This report covers our sustainability progress during the 2019 calendar year against our goals and targets across our five sustainability pillars. Where appropriate, we also provide updates on initiatives underway in early 2020. Our most recent set of goals and targets will sunset in 2020. We will release new goals and targets in 2020 and report against them in our next sustainability impact report. This report has been prepared in accordance with the Global Reporting Initiative Standards: Core option.

# Tracking Our Performance

We set goals and targets because we believe we can simultaneously build a more sustainable business and contribute to a more sustainable future. By reporting on our goals and targets, we hold ourselves accountable for our performance — to our employees, customers, suppliers and peers.

## Animal Care

### Goal: Keep animals safe, comfortable and healthy

Maintain a written program for animal welfare at facilities globally

- **Achieved; 100%**

Report antibiotic usage on a global basis

- **Achieved; Since 2007**

Maintain a systematic program for animal care based on the North American Meat Institute's (NAMI) Recommended Animal Handling Guidelines and Audit Guide at each applicable facility in the United States

- **Achieved; 100%**

Maintain U.S. Department of Agriculture (USDA) Process Verified Program (PVP) certification for locations in the United States

- **Achieved; 100%**

Ensure all live animal suppliers in the United States are certified to National Pork Board's (NPB) Pork Quality Assurance® Plus (PQA® Plus)

- **Achieved; 100%**

Ensure all live animal transporters in the United States are certified to NPB Transport Quality Assurance® (TQA®)

- **Achieved; 100%**

Maintain and implement updates to the company's Animal Care Management System and achieve annual audit score of excellent (97%–100%) at each farm region globally

- **On Track;** Company-owned farms earned an average Common Swine Industry Audit (CSIA) score of 93%

Maintain group housing for all pregnant sows on company-owned farms globally and encourage U.S. contract growers to convert to group housing systems for pregnant sows by 2022; provide pigs and poultry, including laying hens, with housing, floor and surface area required by the European Union (EU)

- **On Track;** 100% company-owned farms globally; increase in conversion of U.S. contract grower farms; 100% poultry farms and hatcheries in Poland are aligned with EU animal welfare requirements

## Environment

### Goal: Reduce natural resource demand; 100% compliance, 100% of the time

GHG Emissions: 25% reduction by 2025 in the United States across our entire supply chain

- **On Track;** We will measure and report our annual progress in 2020 for our entire supply chain

Solid Waste: 75% reduction in waste and zero-waste-to-landfill certification of 75% of our U.S. facilities by 2025; 10% reduction by 2020 in Poland and Romania

- **On Track;** Reduced solid waste 34.7% from 2014 baseline

Compliance: Reduce notices of violation to zero

- **On Track;** Received 20 NOVs in the U.S. and internationally

Water: 10% reduction by 2020 globally at our farms and facilities

- **On Track;** On par with 2014 baseline

Energy: 5% reduction by 2020 globally at our farms and facilities

- **Needs Improvement;** Energy use increased 2.7% from 2014 baseline

## Food Safety and Quality

### Goal: Deliver safe, high-quality protein products

Ensure no incidents occur that require a product recall

- **Achieved; 100%** U.S. and International

Maintain Global Food Safety Initiative (GFSI) certification at all applicable facilities

- **Achieved; 100%**

Maintain a robust food safety employee training program

- **Achieved; 100%**

Offer a variety of products for different diets and needs, and in our international operations, include products designed to address health and wellness in accordance with European Union (EU) nutrition and labeling standards

- **Achieved;** 80 all-natural product options; 10 new choices across all brands

## Helping Communities

### Goal: Support our communities through targeted philanthropy, employee volunteerism and other engagement opportunities

Maintain hunger relief programs to help those in need

- **Achieved;** 24 million total servings donated in U.S.; 219,000 servings donated internationally

Interact with schools and students by providing school supplies, scholarship assistance and facility support

- **Achieved;** \$4.5 million in U.S.; Over \$430,000 internationally

Each facility/farm region to participate in annual community events (four events in the United States and two events internationally)

- **On Track;** 38 U.S. facilities and all farm regions participated in more than four community outreach events; 100% international farms and facilities completed this target

Include a stakeholder presentation during at least one event per year

- **On Track;** 31 U.S. facilities and all farm regions held one or more stakeholder events; 100% international farms and facilities completed this target

## People

### Goal: Maintain low employee injury rates

Continue to reduce Total Incident Frequency Rate (TIFR) and maintain levels below the relevant industry average in the United States

- **Achieved;** On par with 2018

Achieve annual Days Away, Restricted, or Transferred (DART) and Days Away from Work Injury and Illness (DAFWII) results better than relevant industry averages in the United States

- **Achieved;** On par with 2018

Maintain safety engagement level at 40% or more of employees globally

- **Achieved;** 47% employee engagement

Complete at least 10 hours of health and safety-focused training for all safety leadership globally

- **Achieved;** 100%

Meet or beat location-specific injury rate targets in Poland and Romania

- **On Track;** 100% Romania and 82% Poland targets met or exceeded this target

\*In 2019, we discontinued our practice of reporting on each operating segment's monthly safety scorecard achievements.

# Our Contributions to the UN Sustainable Development Goals

The United Nations Sustainable Development Goals (SDGs) represent a global agenda to address the most pressing environmental and social issues facing our world today. We are committed to addressing these sustainable development challenges in the areas where we believe we can have impact.



## Goal 2: Zero Hunger

As a global food company and the world's largest pork processor, we provide high-quality, affordable protein to people around the world through a broad selection of brands and products. In addition, we are committed to improving food security and ending hunger by donating nutritious and much-needed protein to neighbors in need. In 2019, we donated 24 million servings of protein to food banks and food pantries across the United States, Poland and Romania.



## Goal 3: Good Health and Well-being

In addition to helping ensure healthy lives and well-being by providing protein products that are essential to a nutritious diet, our Smithfield BioScience platform leverages by-products from our meat production processes for the development of pharmaceuticals, nutraceuticals and medical device solutions. We are expanding our heparin (blood thinner) business and partnering with academia and government to explore innovative regenerative medicine applications.



## Goal 4: Quality Education

We believe education has the power to dramatically strengthen communities over the long run. Our scholarships and educational grants to Smithfield families totalled \$4.5 million in the United States, and over \$255,000 in Poland and Romania in 2019. Our community partnerships include educational initiatives, such as those with the National FFA Organization and 4-H in the United States to train the next generation of farmers, and the National Conservation Foundation Envirothon (NCF-

Envirothon), North America's largest environmental education program, which we've sponsored for five years. Through our Tuition Assistance program, we contributed approximately \$800,000 to more than 500 employees for training and education to enhance job-related knowledge, skills and proficiency.



## Goal 6: Clean Water and Sanitation

Minimizing water use and maintaining water quality are critical components of our operations. We reuse water at many of our facilities to reduce freshwater usage. We also aggressively protect watersheds where we operate by strictly controlling the application of nutrients at our hog farms and introducing grain supply chain innovations to help protect water from fertilizer application and runoff. In 2019, we also partnered with a local water authority to build a modern surface-water plant in order to reduce impacts on groundwater use.



## Goal 7: Affordable and Clean Energy



## Goal 13: Climate Action

We are committed to cutting our carbon emissions across our supply chain 25% by 2025. With our partners, we are leading our industry in investments in innovative efforts to transform hog manure on our farms into renewable biogas to fuel local communities across the United States. Capturing methane from manure is an incredibly effective way to reduce our emissions because, when released into the atmosphere, methane is 25 times more potent a greenhouse gas (GHG) as carbon dioxide. We also invest in wind energy projects and partnerships and

continue to optimize the efficiencies of our operations and transportation networks.



## Goal 8: Decent Work and Economic Growth

With more than 54,000 employees working across 32 U.S. states and at farms, facilities and offices in Poland, Romania and the United Kingdom, we are committed to providing health and safety programs, training and education opportunities, and diversity and inclusion initiatives to help them reach their full potential. We recognize their environmental, innovative and safety contributions through an array of awards programs. Our [Code of Business Conduct and Ethics](#), [Human Rights Policy](#) and [Supplier Code of Conduct](#) help ensure we are creating a fair, ethical and accountable work environment.



## Goal 12: Responsible Consumption

As a global food company, we depend on the planet's natural resources for our business. We are the only company in our industry to achieve ISO 14001 certification at nearly all our facilities (except for recent acquisitions) and farms. We build on our guiding principles of Responsibility, Operational Excellence and Innovation to advance solutions to reduce waste, optimize our supply chain and improve energy and water efficiency across our operations. We announced our solid waste goal in 2019 to certify 75% of our U.S. facilities as zero waste to landfill by 2025 and to reduce the solid waste we produce by 75%. We partner with agricultural organizations to support the growing efficiency of our grain suppliers.

# Identifying What Matters Most

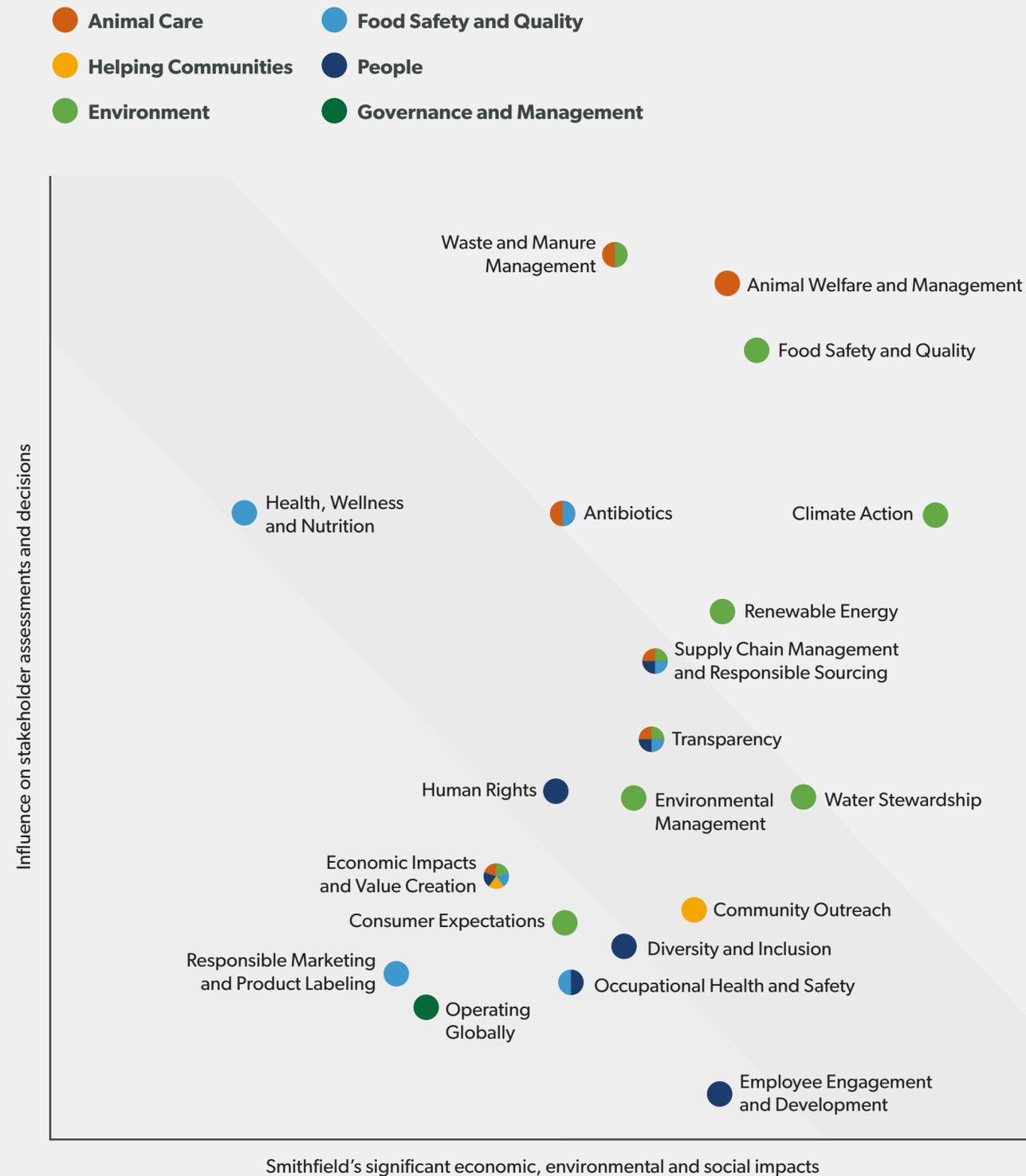
We regularly analyze global and local trends to identify the sustainability issues that are most important to our company. The outcomes inform our strategic, sustainability management and communications priorities.

In November 2019, in advance of preparing this report and in collaboration with a third-party consultant, we updated our materiality assessment of the environmental, social and governance (ESG) issues that matter most to our company. The materiality assessment was conducted in accordance with the best-in-practice guidelines of the Global Reporting Initiative (GRI), an international independent reporting standards organization. The material topics that were identified reflect our 2019 business and are a snapshot of our stakeholder and business priorities at the time we underwent the assessment.

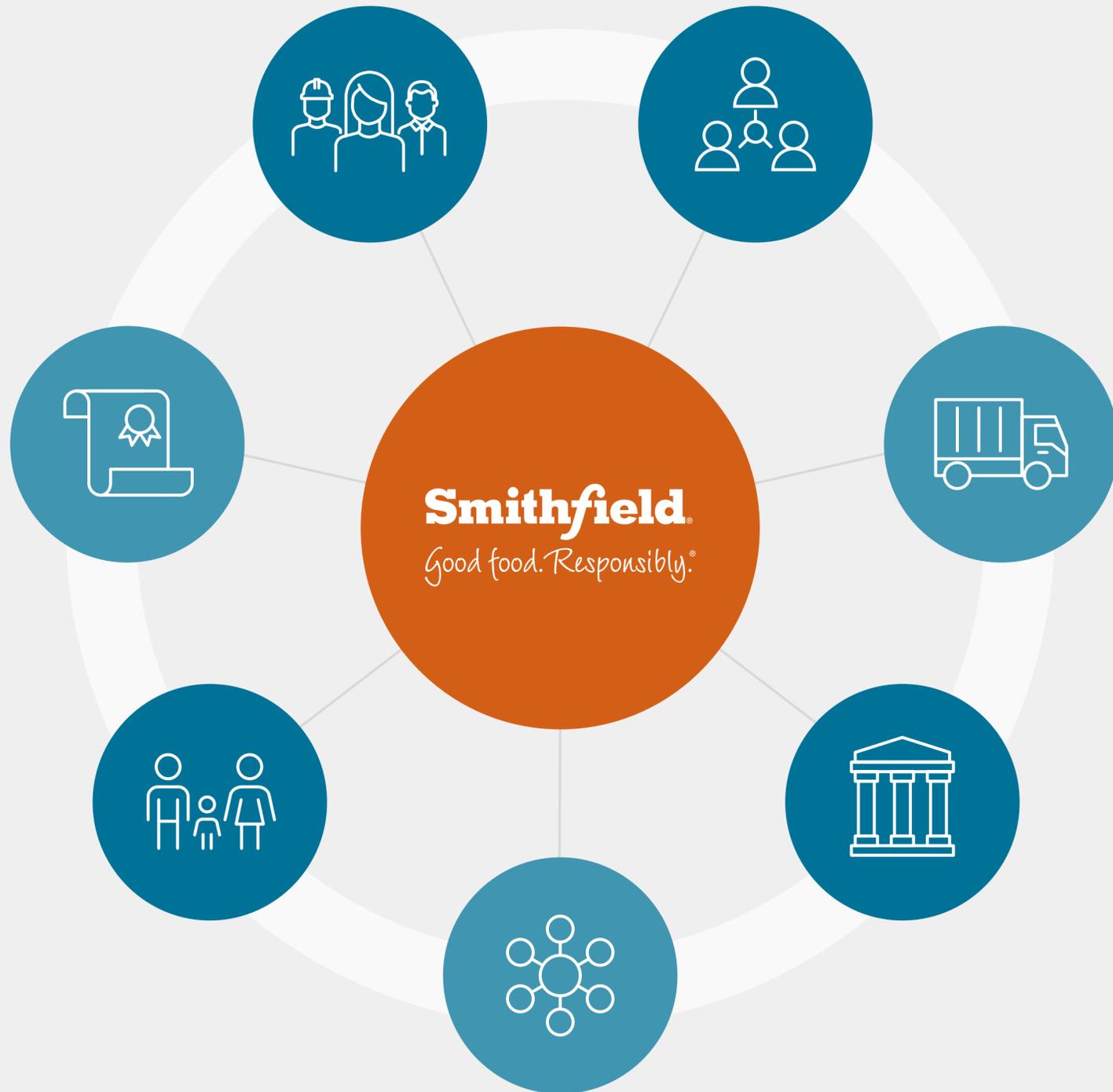
Given how much has changed since the advent of COVID-19, we plan to address our materiality assessment again in 2020 in order to incorporate any priority shifts recommended by our stakeholders or otherwise highlighted by the global pandemic.

To identify and prioritize our material ESG issues, we:

- Conducted external research, competitive benchmarking and a review of internal documents to identify a list of topics material to our business
- Interviewed our leaders and external stakeholders to understand the current and future material topics to the business
- Prioritized and then validated material topics based on where we have significant impact and/or which significantly influence the decisions of our stakeholders



[Learn more about Our Material Topics.](#)



## Stakeholder Engagement

Today's global economy, and the environmental, social and economic issues we encounter as we navigate it, are simply too complex to operate unilaterally. Across our value chain, our engagement, collaboration and partnerships with stakeholders, including employees, customers, communities, governments and regulators, suppliers, industry associations and academia, are essential to strengthening our business in support of our mission to feed the world in a responsible way.

We engage with stakeholders in a number of ways and forums, depending on the issue and the stakeholder group. We participate in various industry groups and membership organizations to learn and gain perspective on issues that are important to the food industry. In order to meet our sustainability targets, we encourage our farms, facilities and offices to meet with community stakeholders to highlight our programs and obtain input.

On the following page, we highlight some of the ways we engaged with our stakeholders in 2019.

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# 2019 Engagement Outcomes

## Employees

- Educated employees through new and updated trainings focused on animal care, food quality and employee safety and professional development
- Added a new Employee Business Resource Group, the Black Professional Network, to engage more colleagues
- Continued to recognize employees going above and beyond through multiple award programs
- Increased collaboration within our manufacturing and business management teams and strengthened internal business partner support

## Customers

- Worked with large retailers to begin developing a blockchain process to promote supply chain traceability for consumers
- Continued to align with customer initiatives like Walmart's Project Gigaton, which aims to avoid one billion metric tons of greenhouse gasses from the global value chain
- Engaged regularly with customers in all aspects of our business to strengthen sustainability objectives

## Suppliers

- Partnered with packaging suppliers to ideate, research and test emerging recyclable and sustainable product materials for future development and implementation
- Continued engagement and communication with hog suppliers to provide market hogs that meet our customers' requirements

## Governments and Regulators

- Coordinated efforts to protect against foreign animal diseases like African Swine Fever with international governments, federal and state regulatory agencies, state veterinarians and industry associations
- Engaged with U.S. Trade Representative's Office on trade policy issues such as the United States and Japan Free Trade Agreement and the United States, Mexico, Canada agreement
- Engaged with the U.S. Food and Drug Administration to ensure regulatory compliance during the launch of our alternative protein product line
- Partnered with the North Carolina Department of Agriculture to conduct independent trials aimed at verifying crop yields from SymTRX fertilizer

# 2019 Engagement Outcomes

## Industry Groups, NGOs and Trade Associations

- Collaborated with the Environmental Defense Fund to continue helping farmers optimize their fertilizer use and improve soil health as well as establishing prairie grass in Northern Missouri to improve Monarch Butterfly and pollinator habitat
- Presented on food quality and safety topics, like listeria, at industry conferences, including International Association for Food Protection 2019, North American Meat Institute Listeria Control Workshops and the Reciprocal Meat Conference
- Maintained certification through the U.S. Department of Agriculture's Process Verified Program
- Participated in the Pain Mitigation Task Force, an industrywide collaboration to develop objective information on assessing and mitigating pain associated with routine animal care procedures, such as castration for very young male pigs
- Continued partnership with industry associations to maintain company engagement and support networking opportunities with hog suppliers, pork customers and affiliated industry organizations

## Communities

- Donated 6.6 million pounds of protein to neighbors in need across the United States
- Volunteered nearly 10,000 hours in aid of hunger relief, disaster support, environmental cleanups and other causes
- Supported more than 160 children and grandchildren of U.S. employees through educational scholarships valuing nearly \$1 million
- Stepped up veteran assistance through North Carolina State University's Soldier to Agriculture Program to provide veterans with hands-on training
- Sponsored the National Conservation Foundation Envirothon, North America's largest environmental education program and international competition

## Academia

- Worked with the University of Minnesota to calculate 2020 baselines for Scope 1, 2 and 3 emissions
- Continued work with numerous universities in the United States and Canada to conduct research on gilt development and improve pig performance for the swine industry
- Maintained partnerships with university experts to improve animal welfare and productivity as well as enhance our processes

# Key Collaborators

We are also members of a number of industry organizations and associations at the national, state and local levels:

## National

American Association of Swine Veterinarians  
 American Conference of Governmental Industrial Hygienists  
 American Feed Industry Association  
 American Meat Institute  
 American Meat Science Association  
 American Romania Business Council  
 American Society for Microbiology  
 American Society of Quality  
 American Trucking Associations  
 Americas' SAP Users' Group  
 Animal Agriculture Alliance  
 Association for Supply Chain Management  
 Corporate Environmental Enforcement Council  
 Environmental Law Institute  
 Food Marketing Institute  
 Global Environmental Management Initiative  
 Institute of Food Technologists

International Association for Food Protection  
 National Association of Manufacturers  
 National Conference on Weights and Measurers  
 National Pork Board  
 National Pork Producers Council  
 National Renderers Association  
 North American Meat Institute  
 Organization for International Investment  
 Pet Food Institute  
 U.S. Meat Export Federation  
 US-China Agriculture and Food Partnership  
 US-China Business Council  
 US-Poland Business Council  
 Women in Agriculture

## State/Local

Alliance for the Chesapeake Bay  
 Arizona Envirothon  
 Arizona Pork Council  
 Bladen County 100 Committee (North Carolina)  
 Bladen County Livestock Association (North Carolina)  
 California Chamber of Commerce

California Grain and Feed Association  
 California Pork Producers Association  
 Cape Fear River Assembly (North Carolina)  
 City of Clinton 100 Committee (North Carolina)  
 Colorado Agriculture Council  
 Colorado Livestock Association  
 Colorado Pork Producers Council  
 Duplin County Agribusiness Council (North Carolina)  
 Iowa Occupational Safety and Health Advisory Council  
 Isle of Wight-Smithfield-Windsor Chamber of Commerce (Virginia)  
 James River Association (Virginia)  
 Middle Cape Fear Basin Association (North Carolina)  
 Missouri-Kansas Forum  
 Nebraska Chamber of Commerce  
 North Carolina A&T  
 North Carolina Association for Soil and Water Conservation  
 North Carolina Chamber of Commerce  
 North Carolina Forever  
 North Carolina Meat Processors Association

North Carolina Pork Council  
 North Carolina Pork Producers  
 North Carolina Trucking Association  
 North Carolina Trucking Association Technology and Maintenance Council  
 Palmetto Agribusiness Council (South Carolina)  
 Sampson County Friends of Agriculture (North Carolina)  
 Snowflake/Taylor Chamber of Commerce (Arizona)  
 South Dakota Safety Council  
 South Dakota Trucking Association  
 Story County Pork Producers (Iowa)  
 Tulare County Farm Bureau (California)  
 Utah Farm Bureau  
 Utah Pork Producers Association  
 Virginia Agribusiness Council  
 Virginia Chamber of Commerce  
 Virginia Department of Health Water Advisory Board  
 Virginia Grain Producers Association  
 Virginia Pork Council  
 VirginiaForever  
 Wisconsin Manufacturers & Commerce

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# Sustainability Governance

Sound governance and management practices are the foundation for trust, transparency and success at Smithfield. Our sustainability management program includes an executive-level position to lead our efforts, corporate-level oversight committees and a core team to drive further progress. Our chief sustainability officer reports to an executive vice president who reports directly to our chief executive officer (CEO). Our CEO reviews our sustainability performance on at least an annual basis. We establish and routinely evaluate goals and targets under each pillar to drive ongoing progress to create value for our stakeholders, employees and company.

Our Enterprise Risk Management System, [Code of Business Conduct and Ethics](#) and approach to public policy are important elements of our sustainability strategy.

## Enterprise Risk Management

Our Enterprise Risk Management (ERM) framework provides a robust platform to identify complex and emerging risks, ensure mitigation processes and controls are in place, regularly monitor and manage key risk areas and provide timely and effective reporting. We have identified a number of key risk areas and prioritized 10: commodity prices, food safety, animal welfare/biosecurity/epidemic, international markets, litigation, government regulations and policies planning and strategy, customer relations, competitor activity and environmental.

## Ethics and Integrity

Our Code of Business Conduct and Ethics, which is applicable to all employees and corporate officers, describes policies and practices for conducting business in accordance with applicable laws and the highest ethical standards. On joining the company, employees are required to read the Code and act in full compliance. Our executive-level Ethics and Compliance Committee, chaired by our Chief Legal Officer, oversees the full range of compliance issues for our company and administers the Code. We also provide employees with opportunities to report ethics violations or similar concerns through an anonymous telephone hotline. The company reviews and responds to all hotline complaints.

## Public Policy

We participate in legislative and regulatory processes both as an individual company and through industry associations. We believe that engagement in the political process is important in making our views heard on issues of significance to our business. We have participated in many cross-industry boards and commissions at the national and state levels.

The following are among the most significant public policy issues for our company and industry:

- Trade Policy
- Support for Agriculture and Rural America
- Foreign Animal Disease Preparedness and Response
- Renewable Energy and Sustainability
- Tax Policy
- Immigration and Labor
- Grain Inspection, Packers and Stockyards Administration (GIPSA) Rules
- Pharmaceutical Supply Chain
- State Ballot Initiatives

[Learn more about Our Positions and Programs.](#)

02

# ANIMAL CARE





Animal care leadership has been central to our operational and business success for more than 20 years. As the world's largest hog producer, we have a responsibility to prioritize the safety, comfort and health of our animals. Our leadership in animal care is also a point of pride, underpinning our culture, where the care and well-being of our 20 million+ market hogs produced annually is woven into the work we do every day.

In 2019, we continued to strengthen our standard operating procedures and policies to further enhance consistent animal care across our U.S. operations.

We partnered with industry experts, universities and governments in the United States and internationally to shore up biosecurity protections and food safety for animals.

We also collaborated to discover ways to reduce antibiotic use and assess pain associated with common practices.

## Our Animal Care Goal

## Keep animals safe, comfortable and healthy

### Our Animal Care Targets



Each farm region globally to continue to maintain and implement updates to the company's Animal Care Management System and achieve annual audit score of excellent (97%–100%)



Each applicable facility in the United States to maintain a systematic program for animal care based on the North American Meat Institute's (NAMI) Recommended Animal Handling Guidelines and Audit Guide



Maintain a written program for animal welfare at facilities globally



Maintain U.S. Department of Agriculture (USDA) Process Verified Program (PVP) certification for locations in the United States



Report antibiotic usage on a global basis



All live animal suppliers in the United States to be certified to National Pork Board's (NPB) Pork Quality Assurance® Plus (PQA® Plus)



Maintain group housing for all pregnant sows on company-owned farms globally and encourage U.S. contract growers to convert to group housing systems for pregnant sows by 2022 and provide pigs and poultry, including laying hens, with housing, floor and surface area required by the European Union (EU)



All live animal transporters in the United States to be certified to NPB Transport Quality Assurance® (TQA®)



# Raising Healthy Animals

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The safety and comfort of our animals is the responsibility of every employee who works with them on Smithfield's company-owned farms, at the family farms we contract with, during transport and in our processing facilities. Our Animal Care Management System policies and procedures guide the care of our animals at all stages of their lives — from gestation to transportation to processing. Employee training, compliance checks and facility audits help assure our comprehensive

approach to animal care is followed and any incident of non-compliance is quickly addressed. Our [Animal Care Management System](#) is a dynamic process through which we monitor and modify to continuously improve the quality of life for our animals and the competitiveness of our global business.

To learn more about our Animal Care Targets and our progress in 2019, see *Tracking Our Performance*.



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# Our Commitment to Animal Care

Our commitment to leading the industry in sustainability requires us to consider all aspects of animal health and safety. Outlined in our [Animal Care Policy](#), our approach and management includes the provision of proper nutrition, care of sick animals, shelter and a commitment to continuous improvement in the humane treatment of our animals. It guides our audit procedures to verify compliance and enhance company practices. Our [Animal Care Policy](#) applies to company-owned farms, our contract growers, transportation operators and processing facilities. Adherence is a condition of employment and is a contractual requirement.

We enhanced our animal care procedures in 2019 with the consolidation of best practices from across our U.S. regions into a single manual of standard operating procedures and training, which we are implementing in 2020. We also aligned our in-farm auditing processes under the purview of our animal handling specialists, with the aim of improving the consistency of our animal care policies and procedures across our operations. These efforts build on the work we have underway in antibiotic use, housing and nutrition as described in this section.

[Learn more about Our Positions and Programs.](#)



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## 2019 Global Production at a Glance

As the world's largest hog producer, we care for millions of animals across the United States and internationally:

- **We produced** approximately 18 million market hogs in the United States and 4 million in Poland and Romania
- **We cared for** approximately 568,000 sows in the United States and 143,000 in Poland and Romania
- **Our primary breeds are** Durocs (males) and a 50–50 cross between Landrace and Large White (females)



## Animal Nutrition

Our animals consume more than 13 billion pounds of feed each year, and ensuring the quality, consistency and safety of our feed supply is critically important. In fact, with the recent implementation of the [U.S. Food and Drug Administration Food Safety Modernization Act](#) (FSMA), animal feed is now considered as high of a safety priority as human food. We have enhanced how and what we use for feed ingredients as well as the manner in which we produce, store and deliver the feed to the pigs.

In 2019, we rolled out our newly created FSMA-based safety plan and training, customized for each feed mill and bakery meal operation, to provide the foundation for our companywide feed and food safety programs. We also developed our Safe Feed/Safe Food program, creating

a framework of accountability over how we manufacture and deliver safe and nutritious animal feed, including feed production oversight and quality assessments from ingredient origins to the final delivery of the feed to our pigs. Our Safe Feed/Safe Food program will be implemented at all of our feed mills and bakery meal operations through 2020, adding another layer of oversight and accountability.

Precise formulas of corn, soybean meal, wheat and minerals and vitamins, when fed in the proper amount at the right time, allow our animals to grow and gain lean muscle, while retaining more nutrients. Our animal nutrition experts routinely study ways to improve the efficient use of our animal feed, analyzing raw ingredients and finished feeds for nutritional content and quality. They also work with our research and technology group to evaluate the

impact of novel feed concepts and additives on animal performance. With our procurement team and our feed mill and bakery meal operations, they ensure they are producing feed that consistently meets the nutritional needs of the animal in a safe and economical way.

Our research also is helping us further expand in the global marketplace. Recognizing that a number of countries ban the use of ractopamine, we have eliminated the feed additive on our company-owned and contract farms to allow us to more fully access international markets. We ensure that pigs in our supply chain are not fed ractopamine through participation in the U.S. Department of Agriculture's (USDA) [Process Verified Program](#) (PVP).



## Antibiotic Use

Antibiotics serve an important role in animal health, including fighting infectious disease and ensuring food safety. Our [Antibiotic Use Policy](#) requires the responsible, controlled and judicious use of antibiotics on our farms to promote the highest level of animal care and food safety. It reflects recent U.S. regulatory changes in the acceptable use of antibiotics and acknowledges consumer public health concerns related to antibiotic resistance. We led the industry in aligning our antibiotics policy with 2015 U.S. Food and Drug Administration guidelines to cease using medically important antibiotics for animal growth promotion.

We also collaborated with other major food companies, retailers, livestock producers and trade and professional associations to develop the [2018 Framework for Antibiotic Stewardship in Food Animal Production](#) to ensure that antibiotics are used judiciously to protect animal and public health.

Our research teams are continually working to understand how we can better use antibiotics when we do need to employ them to treat, control or prevent disease.

We track antibiotic use on all our farms and, after more than a decade, continue to be the only U.S. hog producer to publicly report this information. The amount of antibiotics we use varies from year to year based on a variety of factors, including weather conditions, inventory decisions, type of antibiotic used (feed, water or injected), the prevalence of diseases and active ingredient concentration.

Notwithstanding these annual variations, our antibiotics usage has shown a downward trend over the last several years, which has been accomplished through innovative efforts on our farms, including improvements to our production processes and our use of vaccines. Our veterinarians and dedicated team of animal care experts also partner with university researchers to study opportunities for continual improvement.

Antibiotics Used	2015	2016	2017	2018	2019
<i>(milligrams per pound of live weight used)</i>					
United States	152	118	78	97	96
International	175	129	144	124	137

Annual milligrams per pound represents the total amount of active ingredients of antibiotics administered to the animals divided by the total weight of live hogs produced.

[Learn more about Antibiotics.](#)



## Expanding Our Operations Internationally

In September 2019, we celebrated the expansion of our international operations with the opening of our chicken processing facility in Daszyna, Poland. The new facility has a production capacity of 100 million chickens per year and will employ approximately 1,200 people.

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# Animal Housing

Our leadership in animal care is reflected in our successful transition of all pregnant sows on company-owned farms to group housing systems, including those in Poland, Romania and our joint ventures in Mexico, which we completed at the end of 2017. Group housing systems promote animal well-being by providing sows a social setting that facilitates the contact they like with other sows and the people who care for them. Sows are moved into individual farrowing stalls where they give birth and nurse their piglets until they are weaned.

We also recommend that our contract sow farms in the United States complete a transition to group housing systems by the end of 2022. We are supporting them through the conversion process by providing guidance and expertise when requested.

We operate poultry-growing farms and four hatcheries in Poland that provide chicks to approximately 300 independent growers. These poultry-growing farms use cage-free housing according to [EU animal welfare](#) and [Polish animal welfare](#) requirements.

[Learn more about Animal Housing.](#)

## Group Housing Systems for Pregnant Sows

### Gilt Selection

Gilts, or female pigs that have not had a litter of piglets, are housed in groups and chosen at about 32 weeks old to be bred based on various traits, including observable characteristics and reproductive potential.

### Breeding and Pregnancy Confirmation

Female pigs are artificially inseminated and housed in individual stalls for about six weeks until confirmed pregnant by ultrasound.

### Farrowing and Nursing

Pregnant gilts and sows are moved into individual farrowing stalls where they farrow a litter of piglets, and then nurse the litter until they are weaned, three to four weeks after farrowing.

### Gestation

Once confirmed pregnant, female pigs are housed in groups until they are ready to farrow about 16 weeks after being bred.





## Biosecurity

Strong biosecurity on our farms, and throughout our industry, is critical to prevent the spread of disease and safeguard the health and safety of our animals.

Our biosecurity procedures are designed to prevent contaminants from being brought onto farms. They are strictly enforced at our company-owned and contract farms, as well as across the movement of vehicles, animals, personnel and equipment between farms. For example, employees and visitors must “shower-in” and change into clean clothing before entering a sow farm and must also “shower-out” prior to leaving. This practice helps ensure contagions do not enter the premises or leave them. Equipment and supplies delivered to our farms, including the vehicles that transport them, are also disinfected prior to their entry to the farm area.

In response to the global surge in [African Swine Fever](#) (ASF) in recent years, we have tightened visitor restrictions on all our farms. In the United States, we are collaborating with regulatory agencies, state veterinarians and industry organizations that are leading a coordinated effort to help protect against disease outbreaks like ASF. In Romania and Poland, we follow mandatory government biosecurity controls, which include restrictions in swine movement. We have also enhanced biosecurity measures at our international operations to mitigate the increased risk of ASF.

## Training

Employee training plays an essential role in animal care. New employees must demonstrate competence in animal handling techniques and a thorough understanding of our [Animal Care Policy](#) and National Pork Board (NPB) Pork Quality Assurance® Plus (PQA®

Plus) standards before the end of their 90-day probationary period. Thereafter, employees who work with livestock receive regular on-the-job training under the supervision of production technical trainers. We fine-tuned our training protocols in the United States in 2019 and will roll out standardized training in 2020.

Employees on our international farms receive animal care training upon hire and are certified to European Union (EU) laws and other relevant standards. Processing facility employees who work with livestock are trained and supervised by government veterinarians. Our animal production department in Romania maintains an internal certification program for its animal caretakers, veterinarians and technicians.

All of our training includes practices and procedures to protect against infectious disease transfer, including ASF.





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## Samantha Raynor, Production Technical Trainer

Animal care is central to the activities of all employees who work on our farms. As an animal care technical trainer, Samantha Raynor's job is to instill ethics in each of the procedures of hog production, from inseminating a sow to drying newborn piglets to caring for growing pigs. In 2019, Samantha led a team from across our operations to combine seven regional documents into a single

manual of standard operating procedures (SOPs) and training practices. The standardized volume, which is being implemented in 2020, embraces best practices in SOPs and training from across the United States, infusing greater consistency into the production system as well as in the day-to-day humane care of our animals. In 2020, we are creating learning videos of all SOPs. As a good deal of work on farms is hands-on, observing procedures can be a very effective training tool.

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## Understanding African Swine Fever

African Swine Fever (ASF) is a highly contagious viral disease that is nearly always fatal to pigs and for which there is currently no treatment or vaccine. When ASF infects a farm, affected animals must be quickly euthanized to help stop the spread of the disease. ASF cannot be transmitted to humans, therefore it is not a public health threat or food safety concern. Although pigs that have contracted ASF are safe to eat, the U.S. Department of Agriculture, Smithfield and all U.S. hog producers have procedures in place to help prevent ASF from entering the U.S. swine herd.

The ASF virus is spread in multiple ways, including contact with infected animals, some insects, as well as contaminated food products or animal feed. The virus is hardy and can be transferred by people, vehicles, equipment or unaffected animals that travel between farms. ASF has been present in certain global regions for decades but, in 2014, it spread significantly, including to Romania and Poland. This prompted heightened biosecurity measures and training on all company-owned and contract farms in those countries to prevent the spread of infectious disease.

The virus has never been reported in North America and it has not been detected on any company-owned farms in Romania. In 2019, on two contract farms in Poland, the virus was detected. In early 2020, the virus was detected on one company-owned farm and one contract farm. These cases represent less than 0.003% of all of our farms internationally.



# Certifications and Auditing Standards

In the United States, industrywide assurance requirements are designed to provide stakeholders with consistent, reliable and verifiable systems to assure animal well-being and pre-harvest food safety. Our company-owned farms all adhere to the NPB Pork Quality Assurance® Plus (PQA® Plus) program guidelines for proper care of animals to ensure optimal health and well-being. Our processing facilities are verified by the USDA PVP, which helps ensure animals that come to the facilities have been raised where management systems address health and animal well-being. Drivers who transport and handle our animals, including external suppliers, must take NPB's Transport Quality Assurance® (TQA®) program training and certification.

All of our U.S. farms and facilities are subject to third-party audits, including the Common Swine Industry Audit (CSIA). The CSIA builds on PQA Plus® to serve as a single, common audit platform for the pork industry. Third-party audits at our company farms and facilities are unannounced. Audits at our contract farms and external suppliers are announced in order to facilitate access.

To ensure we remain compliant with third-party audits, we conduct regular in-house animal care audits, aligned with CSIA, on company-owned farms.

In 2019, 52 company-owned and contract farms underwent a CSIA audit, receiving an average score of 93% for company-owned farms and 99% for contract farms. External suppliers received an average score of 96%.

Our meat processing facilities are also subject to unannounced third-party audits that follow North American Meat Institute (NAMI) guidelines. In 2019, the average NAMI audit score for all facilities was 99%, consistent with performance over the past three years. In Poland, 79 of our contract finishing farms and six of our own feed mills are certified to the Global GAP that regulate animal welfare, production hygiene, transportation and other processes. Our company-owned farms in Poland and Romania undergo internal audits annually. In addition, our contract sow and contract hog farms as well as our international transport operators are audited annually to ensure compliance with local and EU regulations. The suppliers from whom we purchase hogs in both countries are also subject to rigorous animal welfare audits, and our processing facilities in Poland are subject to a variety of inspections and audits, including the BRC Global Standard (BRCGS), a global standard for food safety. We undertake biosecurity audits on our international company-owned and contract farms, at our feed mills and across our transportation systems.

## 52 company-owned and contract farms underwent a CSIA audit



**93%**  
average score for  
company-owned  
farms



**99%**  
average score  
for contract farms



**96%**  
average score for  
external suppliers

**In 2019, the average NAMI audit score for all facilities was 99%, consistent with performance over the past three years.**



## Smithfield's Genetics Research Centers

We operate genetic research centers in North Carolina and Texas. Our technicians, genetics researchers and veterinarians use genetics research to identify traits that favor animal health, growth and other characteristics like a sow's nursing skills or a piglet's feeding abilities. They also look for traits related to meat quality, such as those that will result in the perfect amount of fat and marbling to meet consumer preferences.

As a result of our research, the hogs we raise today represent a unique combination of three heritage breeds: 100% Durocs on the male side and a 50–50 cross between Landrace and Large White hogs on the female side. Our genetics program itself is also unique. While other U.S. meat companies use third parties to develop their breeding programs, the work of our expert in-house research teams lets us trace the genetic lines across our entire pork chain, from breeding to farms to the final product.





# Improving Animal Welfare

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Continuous improvement is built into Smithfield's animal care policies and procedures. We aim to provide optimal care and comfort at every stage of a pig's life and continually seek ways to reduce stress, mitigate pain and ensure safe handling.



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# Safe Transportation and Animal Handling

Every year globally, we transport more than 140,000 truckloads of company-owned hogs from farms to processing facilities. The care and comfort of our animals while en route is an important element of our animal care program. Our Animal Handling and Welfare Quality Management Plan helps us ensure that every aspect of every trip is safe and uneventful.

All of our drivers in the United States must be trained and certified under the National Pork Board (NPB) Transport Quality Assurance® (TQA®) program, which provides education and guidelines for transporters, producers and animal handlers on all aspects of hog handling and transportation.

We made a number of enhancements to our transportation-related animal handling procedures in 2019.

We engaged our facility and transport teams with the goal of reaching 100% compliance with our guidelines in off-loading wait times. Wait times are an important aspect in humane animal care as longer waits between a truck's arrival at a facility and unloading can increase the number of fatigued or non-ambulatory animals being received. We also completed installation of forward-facing cameras in more than 500 trucks in 2019. Our experience has shown dash-cams increase driver attentiveness, which can lead to reductions in accidents.

However, accidents do occasionally happen. Over the course of hauling 102,224 loads of market hogs in the United States and 43,278 at our international operations in 2019, we experienced 11 accidents in company-owned vehicles, one less than in 2018.



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# Animal Welfare Research

We're focused on practices that improve animal well-being and enhance product quality. We are active members of the Pain Mitigation Task Force, an industrywide effort that is chaired by a member of American Association of Swine Veterinarians (AASV) and includes experts in human and swine medicine from around the world. The group is tasked to develop scientific methodologies to assess pain associated with routine procedures, such as castration for very young male pigs. Currently various strategies of assessing pain are being tested in universities across the United States. Once these methods are verified, we will undertake a larger scale trial and report the results back to the task force.

Our Production Research team is also working to improve treatment options for animals that get a wound or skin lesion, which unfortunately, inevitably occurs. They have identified a product that heals a wound two days faster than other commonly used treatments for swine. Currently this research trial is being repeated to confirm initial

results. Additionally, our team is testing methods to deter "tail-biting" once the behavior starts. Tail-biting is an abnormal behavior that can cause wounds on the tail. We expect to have a better understanding of how to manage this abnormal behavior in 2020 to improve animal welfare.

On some of our farms, we use an FDA-approved veterinary prescription product as an alternative to physical castration. Like a vaccine, this product uses the male pig's immune system to stop the production of testosterone that causes off-odors and off-flavors in the pork. We are encouraged by the benefits experienced so far and will continue to evaluate this option.

In addition, over the last five years, we have invested \$1.5 million to implement 24-hour video monitoring to support our Animal Care Management System on over 50 company-owned sow farms and nearly all of our harvest facilities to focus on animal welfare and proper handling from truck unloading to humane euthanasia.

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# Humane Euthanasia and Slaughter

There are times on farms when employees and animal caregivers must humanely euthanize pigs following injuries or illnesses. They are trained by our veterinarians in accordance with the recommendations of experts, including the American Association of Swine Veterinarians and the National Pork Board.

We have invested in research to understand the techniques that cause the least pain and stress to the animals when euthanasia is required following an injury or illness and at our harvesting facilities. Smithfield has led the U.S. pork industry in installing equipment to anesthetize pigs using carbon dioxide (CO<sub>2</sub>). For example, we use carbon dioxide for the euthanasia of pigs weighing less than 65 pounds and at our poultry plant in Poland, a process that causes painless loss of consciousness and death.

[Learn more about Humane Euthanasia and Slaughter.](#)

03

# ENVIRONMENT





As one of the world's leading food companies, Smithfield has an interest and a duty to ensure we advance our business responsibly. Our industry-leading efforts to minimize our environmental impact throughout our supply chain are important to protect our people and the communities where we operate. They are also in step with the expectations of those we serve — our customers and consumers. But more than that, they are the right thing to do.

We have pioneered many industry firsts, such as our ambitious commitment to cut our absolute greenhouse gas (GHG) emissions 25% by 2025 throughout our entire supply chain, an effort unmatched by our industry peers. Our innovative technology partnerships are leading our GHG reduction efforts by transforming manure into biogas across the United States. Building on our guiding principles of Responsibility, Operational Excellence and Innovation, we are focused on advancing solutions to reduce waste, optimize our supply chain and improve energy and water efficiency.

Our world-class environmental initiatives are underpinned by our global [Environment Policy](#) and [Water Policy](#), as well as rigorous environmental management, measurement and compliance systems to monitor and report on our activities. Our decisions are guided by the principles of pollution prevention and continuous improvement, and we provide consistent guidelines and training across our operations. Nearly all our facilities (except new acquisitions) and all our farms are ISO 14001:2015 certified, which is considered the gold standard in environmental management.

We doubled our investment with our partner, Dominion Energy, to expand our manure-to-energy biogas installations. Through innovative collaborations, we are accelerating our efforts toward our goal to reduce GHG emissions by 25% by 2025.

We announced our solid waste target in 2019 to certify 75% of our U.S. facilities zero waste to landfill by 2025 and to reduce the solid waste we send to landfill by 75%. Three facilities were certified zero waste to landfill in 2019 for a total of 15 of our 48 facilities, or 30%.

We also continued to enhance the effectiveness of our supply chain, cutting miles traveled and reducing GHG emissions through distribution center, fleet and route optimization.

## Our Environmental Goals

- **Reduce natural resource demand**
- **100% compliance, 100% of the time**

## Our Environmental Targets



**GHG Emission:**  
**25% reduction** by 2025 across our entire U.S. supply chain



**Energy:**  
**5% reduction** by 2020 globally at our farms and facilities



**Water:**  
**10% reduction** by 2020 globally at our farms and facilities



**Compliance:**  
 Reduce notices of violation to **zero**



**Solid Waste:**  
**75% reduction** in waste and zero-waste-to-landfill certification of 75% of our U.S. facilities by 2025; 10% reduction by 2020 in Poland and Romania



# Innovating for a Clean Energy Future

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Across the United States, hog production accounts for about 0.3% of total GHG emissions. At Smithfield, hog production is the largest contributor to our carbon footprint. In collaboration with the University of Minnesota's NorthStar Initiative for Sustainable Enterprise, we have undertaken a life cycle analysis (LCA) to measure our impact across our entire supply chain. The LCA captured our GHG emissions across all areas of our business and showed the areas where we can make the greatest impact in our GHG emissions reduction. These include in our farm and facility operations and across our transportation networks.

In 2016, we became the first major protein company to adopt a far-reaching GHG emissions reduction goal that engages our entire supply chain. We followed this announcement in 2017 with the launch of Smithfield Renewables, our platform to accelerate our industry leading GHG reduction and renewable energy initiatives. Through the Smithfield Renewables platform, we are making important progress in our efforts to reduce the impact of methane produced by hog manure by transforming this by-product into renewable energy.

We have pledged to reduce our absolute GHG emissions in the United States by 25% by 2025. This represents more than four million metric tons, which effectively removes the equivalent of 900,000 cars from the road.

With a number of GHG reduction projects underway, we are engaged with the University of Minnesota to establish 2020 baselines for our Scope 1, 2 and 3 emissions against which we will measure and report our annual progress.

# With these projects, we're making progress toward our goal to reduce our greenhouse gas emissions 25% by 2025.



## Manure Management

### Creating clean energy

Through partnerships, we're converting manure into energy at our hog farms in NC, MO, VA and UT to power homes and business.

### Farming responsibly

We're working with partners to produce sustainable fertilizer from renewable biological materials collected from manure treatment systems at our hog farms.



## Grain Farms and Feed Milling

### Feed efficiency

Through improvements in genetics, nutrition and management, we've reduced the amount of feed needed to raise our animals.

### Responsible grain production

We provide agronomy advice and tools to help farmers produce the same amount of grain using less fertilizer.

We purchase grain from farmers who implement efficient fertilizer and soil health practices.



## Processing, transportation, non-grain feed and other projects

### Processing

#### Reducing waste

Today, 30% of our U.S. facilities are certified zero waste to landfill.

By 2025, we aim to reduce our solid waste to landfill by 75% and certify 75% of our U.S. facilities.

#### Improving energy efficiency

We're reducing our energy intensity at our facilities through partnerships and programs.

We continue to replace existing lighting with LEDs.

#### Optimizing product packaging

Our Prime Fresh product line uses 31% less packaging.

Our Pure Farmland brand packaging uses 50% recycled material.

#### Producing energy from wastewater

At our Tar Heel, NC facility, we're turning wastewater into renewable natural gas, powering over 2,000 local homes and businesses.

### Transportation

#### Optimizing logistics

We're reducing the distance traveled each year by roughly 11 million miles.

We're reducing our diesel consumption by 1.6 million gallons, equating to taking over 2,800 cars off the road annually.

### Other Projects

#### Generating wind and solar energy

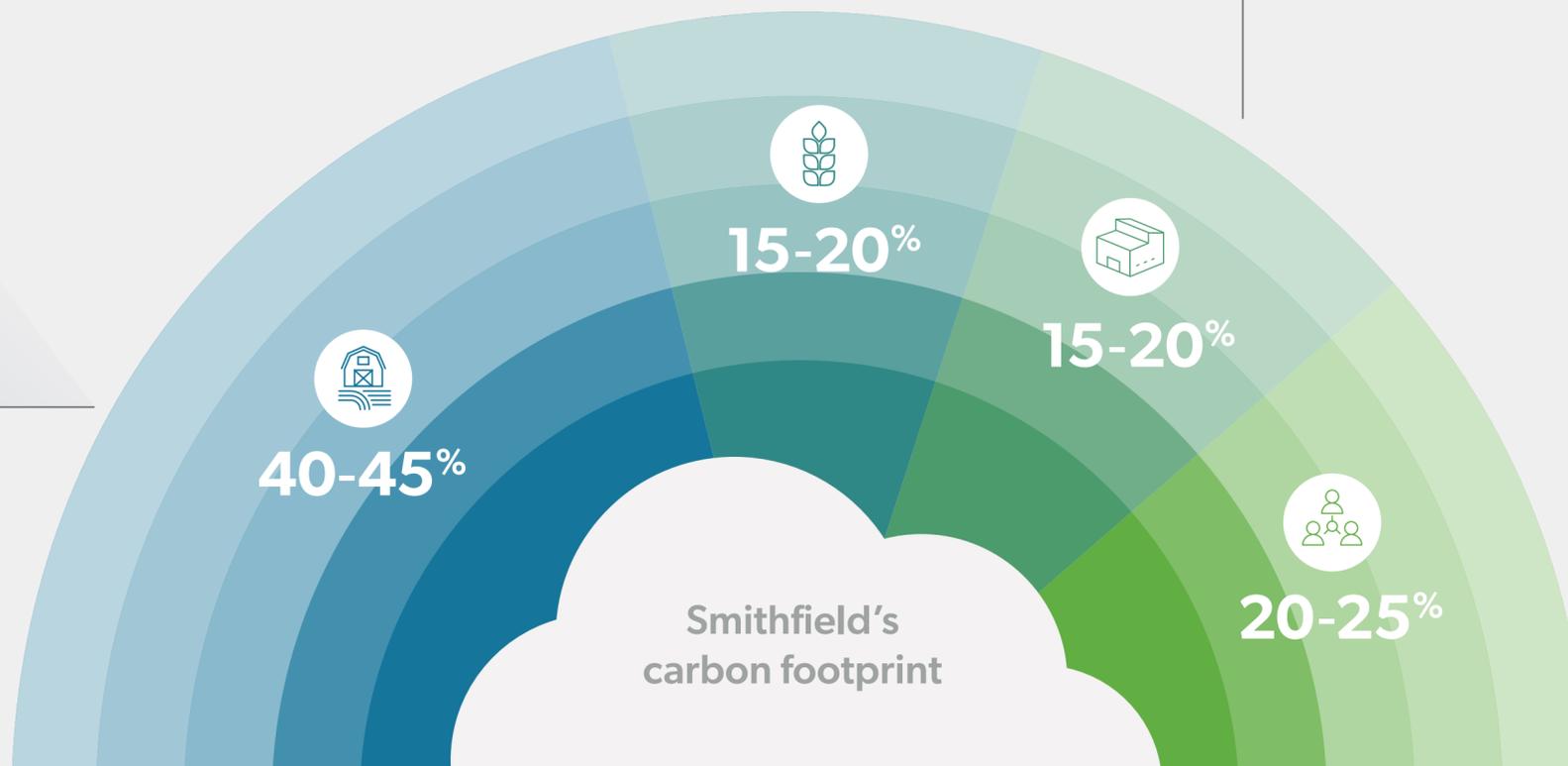
In 2021, we'll use energy generated by wind to power our facilities through a ALLETE Clean Energy partnership.

We have partnered with renewable energy companies to bolster the local power grid using wind and solar in Utah.



## Consumers

We have limited control over how consumers prepare our products, we are focusing our GHG reduction efforts in this area on producing more on-trend shelf-stable, pre-cooked foods with smaller portion sizes, which tend to reduce consumer energy use and minimize food waste.



# Smithfield Clean Energy Projects

We are one of the first protein companies to invest in and commit to an innovative renewable energy platform. Through it, we are quickly generating an expansive manure-to-biogas business, a first of its kind and first in class. Our work in this space ladders up to our aggressive goals through which we are addressing the environmental impacts of our operations and engaging our entire supply chain.

## Turning Manure into Energy

### Capturing Manure from Barns

Hogs are raised in climate-controlled barns with easy access to food and water. The manure they generate, which falls through slatted barn floors to keep animal pens clean, is temporarily stored in concrete pits below. Underground pipes transfer the manure — including nitrogen, phosphorus and other nutrients — to specifically designed structures on the property for storage and treatment.

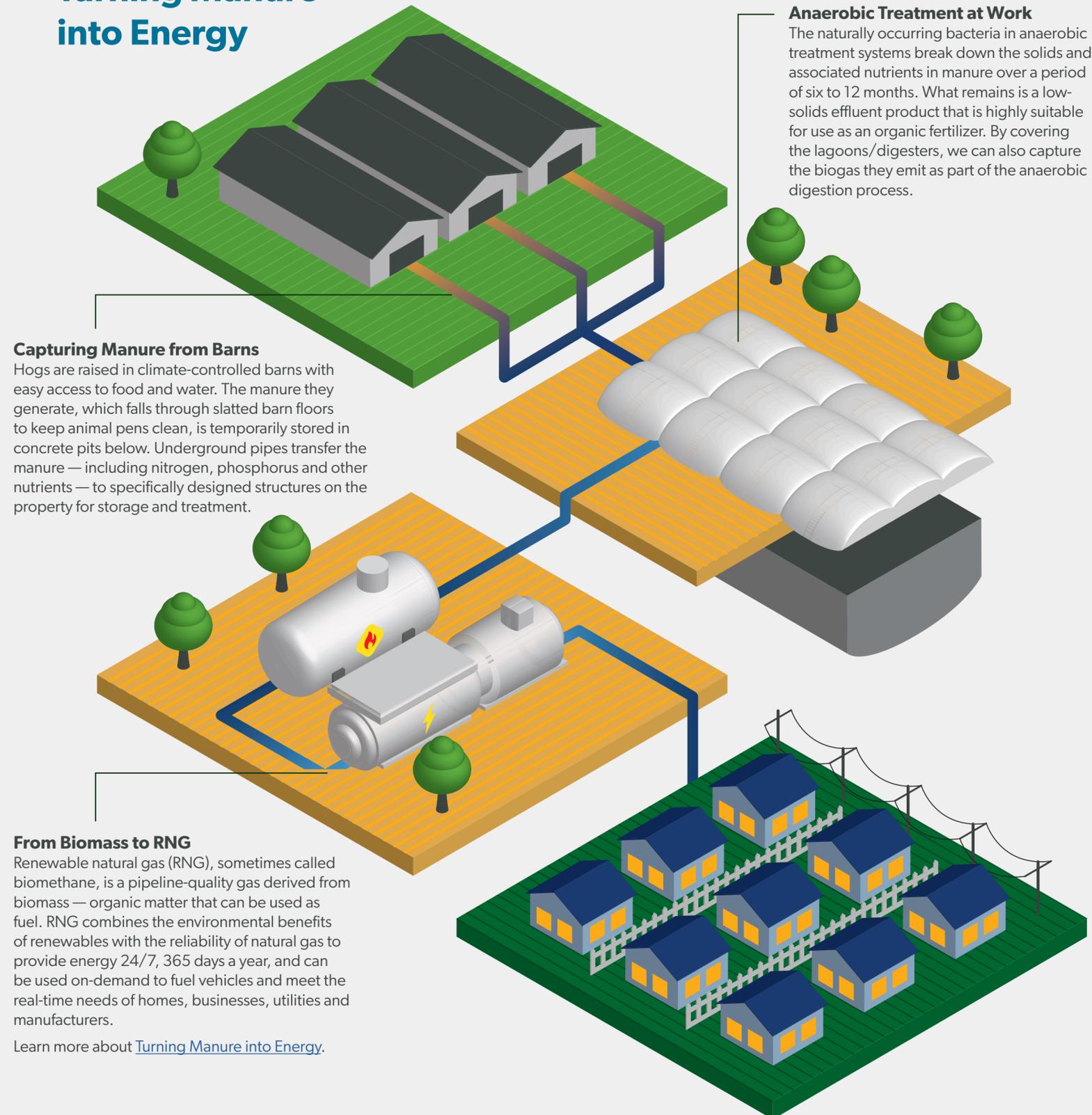
### Anaerobic Treatment at Work

The naturally occurring bacteria in anaerobic treatment systems break down the solids and associated nutrients in manure over a period of six to 12 months. What remains is a low-solids effluent product that is highly suitable for use as an organic fertilizer. By covering the lagoons/digesters, we can also capture the biogas they emit as part of the anaerobic digestion process.

### From Biomass to RNG

Renewable natural gas (RNG), sometimes called biomethane, is a pipeline-quality gas derived from biomass — organic matter that can be used as fuel. RNG combines the environmental benefits of renewables with the reliability of natural gas to provide energy 24/7, 365 days a year, and can be used on-demand to fuel vehicles and meet the real-time needs of homes, businesses, utilities and manufacturers.

Learn more about [Turning Manure into Energy](#).



## Manure to Energy Projects and Partnerships

Our unique industry-leading biogas platform captures methane from hog manure on our farms and transforms it into renewable natural gas (RNG). Capturing methane from manure is an incredibly effective way to reduce our emissions because, when released into the atmosphere, methane is 25 times more potent a GHG emission as carbon dioxide.

Through our aggressive program, we are implementing RNG projects across 90% of our hog finishing spaces in North Carolina, Utah and Virginia, and nearly all in Missouri by 2028. We also announced that, together with our partner Dominion Energy, we are doubling our investment in RNG projects across the United States to \$500 million

through 2028. Our joint venture, [Align Renewable Natural Gas](#), will expand our reach to pursue new biogas projects across the country. When fully implemented, the expanded partnership will prevent more than 2.5 million metric tons of GHG emissions from entering the atmosphere each year, the same as planting more than 40 million new trees.

Already we're seeing results with Align's first project in Milford, Utah. In 2019, we successfully utilized digesters to begin producing biogas. We also completed construction of a biogas transmission line, which in 2020 will clean and transform the biogas into RNG. When RNG production starts up, ultimately this project will produce enough RNG to power 3,000 local homes and businesses by 2021.

In addition, Align broke ground on its first of several planned projects in North Carolina in 2019. This initial project will collect biogas from 19 farms and convert it to RNG. This project is slated to be completed in 2020.

We are also making tremendous strides in Missouri through our joint venture with [Roeslein Alternative Energy](#) (RAE), [Monarch Bioenergy](#). In 2019, we increased the amount of RNG produced in Missouri from our farms. With our additional \$45 million investment in early 2020, we aim to produce biogas at 100% of our company-owned finishing farms in Missouri, an initiative that will remove the equivalent of 130,000 gasoline vehicles from the road.

[Learn more about Manure Management.](#)



## Our Largest Wastewater to Energy Project

To complement the renewable energy efforts on our farms, we're leveraging wastewater at our Tar Heel, North Carolina facility, in partnership with Duke Energy and OptimaBio, LLC, to create RNG. Completed in early 2020, the project is producing RNG to power more than 2,000 homes in the surrounding area each year. To date, this is one of our largest renewable energy projects involving wastewater, and our first in North Carolina.

## Supporting Environmental Education

For the past five years, we have sponsored the National Conservation Foundation Envirothon (NCF-Envirothon), North America's largest environmental education program and international competition. Each year, more than 50,000 high school students team up to demonstrate their knowledge of environmental issues during regional and state competitions.

Our employees donate their time and expertise to local teams, leading training sessions and facilitating coordination of program curriculum. Our \$120,000 donation in 2019 supported scholarships for the top team members, local and regional competitions and event support for the North Carolina Association of Soil and Water Conservation Districts, which hosted teams from across the United States, Canada and China at the international championship competition in Raleigh, North Carolina.

See [Education](#) in Helping Communities Pillar.



## Wind Energy Projects and Partnerships

Wind and solar energy are also core elements of our multifaceted approach to reducing our carbon footprint.

In 2019, we partnered with [United Wind](#) to develop wind energy infrastructure on dozens of our farms in Colorado. The partnership will provide us with long-term, low-cost renewable energy for our agricultural operations. We also agreed to purchase 75 megawatts of wind energy for a period of 12 years from [ALLETE Clean Energy](#)'s 300-megawatt Diamond Spring site, joining project partners Walmart and Starbucks. We expect the carbon-free energy generated through Diamond Spring will account for more than 15% of our total energy use across the United States.





# Enhancing Operational Efficiency Across Our Business

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Our renewable energy initiatives are part of our broader efforts to minimize environmental impacts across our supply chain — by reducing waste, managing water use and continuously improving efficiency across our operations.



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# Waste and Manure Management

Our industry-leading biogas program is just one of the innovative ways we are transforming manure waste to help us reduce our GHG emissions. Through our strategic partnership with [Anuvia™ Plant Nutrients](#), organic matter in hog manure collected at our North Carolina farms is being used to create a commercial-grade fertilizer (SymTRX™) that achieves similar yield results to fertilizing with ammonium sulphate fertilizer. We currently offer a discount program to farmers who use SymTRX through our partnership with Anuvia.

Across our operations, regulations require us to strictly manage our manure slurry waste. For example, in Poland we are required to use 70% of the slurry we create on our fields. The country also regulates the months during which we can apply manure as fertilizer and, with a new water law introduced in 2018, that timeframe was shortened. We are committed to following these and other manure management regulations everywhere we operate.

Like any large manufacturing operation, we also put considerable effort into the management of solid waste in our facilities. Our bold new waste reduction target is a meaningful addition to our comprehensive approach to sustainability. We have committed to reducing our solid waste to landfill by 75% and to achieving zero-waste-to-landfill certification at 75% of our U.S. facilities by 2025. Three facilities were certified zero waste to landfill in 2019 for a total of 15 of our 49 facilities and distribution centers, or 30%.

Our new target is helping us emphasize a zero-waste-to-landfill mindset companywide to focus on the initiatives that will help us meet our rigorous certification criteria. In 2019, our U.S. operations sent nearly 57% less material to landfill compared to our 2010 production weighted baseline — year over year, we cut our waste to landfill by 31%.



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## Celebrating 10 Years of Environmental Stewardship

In 2019, we received the 10-year Environmental Stewardship Award for our Tar Heel, North Carolina facility from the North Carolina Environmental Stewardship Initiative. This program is run by the North Carolina Department of Environmental Quality and promotes superior environmental performance in the state.

## Sustainable Packaging

Optimizing food quality and ensuring the safety of our products requires a variety of packaging materials. We take every opportunity to reduce the environmental impact of packaging, from source reduction to optimizing our products' packaging to limiting the amount of waste consumers generate after enjoying our products. For example, with the expanded plant-based product offerings launched under the [Pure Farmland™](#) brand, we introduced a product tray made with 50% recycled materials. Additionally, our Omaha, Nebraska facility switched from applied paper labels to printed film. This simple switch eliminated over four tons of waste a year, primarily from label backing.

We've also aligned with customer initiatives, such as Walmart's [Project Gigaton](#), which aims to avoid one billion metric tons (a gigaton) of GHGs from the global value

chain by 2030, to advance our sustainability packaging initiatives.

## Water Stewardship

Consistent with our commitment to environmental stewardship, we place a high priority on the protection and conservation of water, an essential natural resource for our business and our communities. Two-thirds of our water use supports cooking and sanitation at our processing facilities, while water on our farms is used for our pigs to drink and for sanitation, cooling and biosecurity.

Our [Water Policy](#) outlines our commitment to proactively addressing water quality and use in cooperation with local communities and regulatory agencies. Our 2020 water use target — to achieve a 10% reduction in water use from a 2014 normalized baseline — drives our progress.

In addition to water reduction initiatives across our facilities, we aggressively protect watersheds where we operate. For example, our Tar Heel, North Carolina facility partnered with the local water authority to build an award-winning new surface-water plant to reduce impacts on groundwater use in eastern North Carolina. Additionally, our grain supply chain innovations help protect water from fertilizer application and runoff, conditions we carefully guard against in our agricultural business.

In 2019, our water use in the United States per 100 pounds of product was on par with our 2014 normalized baseline. Our absolute water use at our farms and facilities increased by 21%, commensurate with our increased production volume.

Water use in our international operations declined over 13% in 2019 compared to the normalized baseline in 2014.



## Zero Waste to Landfill in California

Meeting rigorous zero-waste-to-landfill criteria is no easy task, no matter what your business is. We're especially proud of our facility in Vernon, California, which achieved zero-waste-to-landfill certification in 2019 — our largest and first harvest facility to do so. Our Vernon team introduced a variety of waste reduction initiatives, including implementing an innovative in-house solution for the treatment of heparin waste, a by-product of heparin production, using the facility's existing wastewater treatment system. Through this and other efforts, we are diverting over 2,700 tons of waste from landfills, saving over \$1 million per year in landfill costs and supporting our commitment to responsible operations in our communities.

Learn more about by-products and innovative solutions at [Smithfield BioScience](#).



## By-product Innovation

Innovation is central to the way we work at Smithfield, driving creative thinking in areas such as waste reduction and reuse. Through [Smithfield BioScience](#), we are leading innovation by diverting by-products from our meat production processes from the waste stream and leveraging those by-products for the development of pharmaceuticals, nutraceuticals and medical device solutions. With our Smithfield BioScience platform, we are investing in cutting-edge research and development, partnering with pharmaceuticals, biotech companies and university researchers to discover the next big medical breakthrough.

We are uniquely positioned to serve the healthcare market. We have a supply of genetically superior porcine parts with an unparalleled level of traceability and proven product safety within our vertically integrated business. In the United States, we have 10 harvesting facilities, including an FDA-approved facility for pharmaceutical-grade products. We employ tissue collection specialists to harvest glands, mucosa and pig skin to be used in both pharmaceutical and medical device applications. In addition, we have on-site testing labs and robust auditing processes in place at our facilities to ensure our products meet the exact specifications of our customers' sophisticated applications.

We are capitalizing on our capabilities to drive growth in our heparin business. Since the 1950s, heparin, a natural blood thinner, has primarily been sourced from porcine intestinal mucosa. With the acquisition of our Cincinnati, Ohio, heparin manufacturing facility in 2017, we have rapidly expanded our manufacturing capacity, with six of our meat processing facilities now supplying porcine by-products, which we transform into heparin products used in cardiac surgery, dialysis procedures, blood transfusions, medical device implantation and other applications.

The growth of Smithfield BioScience is fueling further diversification in the biomedical field. We have an ongoing partnership with the University of Virginia's Center for Advanced Biomanufacturing to leverage porcine by-products to advance regenerative medicine technologies.

In partnership with a larger consortium of approximately 100 organizations that have come together under the Advanced Regenerative Manufacturing Institute (ARMI), we are working to accelerate regenerative tissue research and creating state-of-the-art manufacturing innovations in biomaterial and cell processing for critical U.S. Department of Defense (DOD) and civilian needs.

As part of the larger ARMI initiative, we also have research underway to expand tissue development through BioFabUSA, a program funded by the DOD to support the Wounded Warrior Project.





## International Water Projects

Wastewater treatment can have significant environmental and financial impacts, and one of the most effective ways to address them is to remove water from the sludge safely and efficiently. Our team in Starachowice, Poland discovered their standard approach achieved only 18% dry matter, resulting in needless disposal of water at substantial cost. To address the problem, the team experimented with different technologies to produce a dryer sludge and reduce water weight and volume. The results were significant, cutting wastewater sludge sent to a third-party biogas facility by 32%, or 6.6 million pounds, saving over \$140,000 in annual disposal costs. In addition, it reduced the number of daily transports to the biogas facility in half and reduced electrical energy consumption by nearly 346,000 kWh per year, or 1% of the facility's annual electricity usage.

## Farm and Facility Efficiency

Our operations use significant amounts of energy and we routinely look for ways to reduce our consumption, particularly in our processing facilities where 75% of use occurs. Our Denison, Iowa facility, for example, invested \$3,100 in 2019 to upgrade its aging air compressor system, reducing its annual electricity use by 1.7 million kWh and costs by over \$120,000.

Three of our facilities, in Iowa, Wisconsin and New Jersey, participated in the U.S. Department of Energy's Better Buildings, Better Plants program, which offers companies technical assistance as they work toward energy efficiency improvements. Through our 10-year financial commitment to upgrade facility mechanics, the three locations achieved the targeted reduction in energy intensity by 25% compared to 2010 — two years early! We also continue to replace metal halide lamps with LEDs as they wear out.



With more than half of the 11,000 lamps now replaced, we are on target to complete the transition by 2025, with estimated cost savings of approximately \$3.6 million annually.

Continuous improvement has also helped us reduce air emissions across our operations. We obtain operating permits for our facilities from government agencies as required and use state-of-the-art control technologies to capture and treat emissions. Our U.S. facilities also report nitrogen oxides (NOx) and sulfur oxides (SOx) emissions to the U.S. Environmental Protection Agency and state regulatory agencies. Most of our farms are subject to state and local regulations related to emissions, including odor. Regulations range from direct limits on emissions to indirect requirements such as setbacks, odor control and manure management plans.

Our NOx and SOx emissions\* decreased against our 2014 normalized baseline. The significant decrease in SOx emissions is primarily due to using cleaner burning fuels at our manufacturing facilities in the United States and Poland.

*\*Data includes 2018 emissions; 2019 data were not available at the time of the release of this Sustainability Impact Report. 2018 emissions include 14 facilities in the United States and seven facilities in Poland.*



## 2019 Sustainability Awards

Our Wilson, North Carolina facility cut its water use in half over two years through adjustments to equipment, modifications to daily procedures and the implementation of a wastewater re-use program. Through these and other continuous improvement measures, the facility surpassed Smithfield's 2020 water goal by 19%, two years ahead of schedule and achieved annual savings of more than \$225,000, earning the Wilson team the 2019 President's Award.

Our sustainability awards annually recognize achievements by individuals or teams in six areas:

community, energy, packaging, training and education, waste and water. In 2019, we recognized the innovations and initiatives of ten teams who cut air compressor energy use, reduced waste through recycling, improved packaging, engaged communities and provided disaster relief.

We also annually present our Zero Hero Award to honor a colleague who made a significant contribution to our goal of 100% compliance through collaboration across our supply chain and stakeholders. Kelley Brown, a regulatory compliance manager in Burgaw, North Carolina is our 2019 winner for her leadership in improving food safety, quality and training initiatives, driving employee safety, and

developing and implementing the ISO 14001 program at Burgaw. Our award-winning teams and individuals truly exemplify the power of putting our guiding principles of Responsibility, Operational Excellence and Innovation into practice. The combined savings of the 2019 Sustainability Awards program resulted in close to \$12.5 million and reduced:

- Water use by 92 million gallons
- Energy use by more than 6 million kwh
- Natural gas by 23,500 dth
- Materials to landfill by 64 million pounds

See [Employee Recognition and Awards](#) in People Pillar.





# Responsible Supply Chain Management

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When we talk about our supply chain at Smithfield Foods, we think about everything that goes into the production and distribution of our foods — from the farms that grow grain for our animals to the distribution and transport systems that deliver our products to customers that sell or serve our products to consumers. Our supply chain partners are key to ensuring we provide consumers with high-quality foods produced in a responsible manner.



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# Responsible Grain Production

The more than 13 billion pounds of feed our animals consume each year contribute approximately 20% of our GHG emissions. In order to reduce our carbon footprint, we have collaborated with the Environmental Defense Fund in the United States to help farmers find ways to optimize fertilizer use and improve soil health. We also provide agronomy advice and tools to help farmers in our U.S. supply chain produce the same amount of grain using less fertilizer. In 2019, we expanded our assistance to local grain producers through a partnership with the North Carolina Agricultural Consultants Association, a network of licensed, independent agricultural crop consultants who, like us, are committed to agricultural stewardship and grower profitability. In exchange for affordable and independent

consulting, farmers agree to market 125 bushels of corn per acre to us. At the end of 2019, over 4,000 acres were enrolled in this program. We also partnered with Augusta Seed to provide quality seed at a preferred price. Augusta is an independent, family-owned business based out of central Virginia. Farmers in our supply chain can purchase seed from Smithfield at discounted prices. In exchange, farmers agree to contract 120 bushels per acre to Smithfield. In 2019, more than 125 grain growers participated in this program, providing us with a source of 2.1 million bushels of corn. At the end of 2019, the grain we purchased directly from farmers came from approximately 400,179 acres where efficient fertilizer and soil health practices were implemented.



# Transportation and Logistics

Our logistics network in the United States includes a system of multiple distribution warehouses and a fleet of nearly 6,500 third-party trucks traveling more than three million miles each week. Improving the system is one of the keys to reducing our GHG emissions. In 2019, we continued to advance our optimization initiative. Through it, we are rerouting transportation routes to be more efficient and consolidating our regional distribution centers, including our new state-of-the-art facility that we proudly opened in North East,

Maryland. We estimate our efforts will reduce distance traveled each year by approximately 11.2 million miles and reduce diesel consumption by 1.6 million gallons, equating to an annual GHG emission reduction of nearly 13,000 metric tons of carbon dioxide equivalent (CO<sub>2</sub>e), or taking more than 2,800 passenger cars off the road annually. These changes will also enhance customer service and reduce annual transportation and warehouse costs by an estimated \$45 million.

In 2019, our program requiring third-party haulers to shift to lighter, more fuel-efficient trucks eliminated approximately 2,800 loads, saved 725,000 miles, reduced fuel use by 103,000 gallons, cut GHG emissions by 834 metric tons of CO<sub>2</sub>e and returned savings of \$2.6 million.





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## Food Waste Bakery By-products

In the United States, pigs have long been reared on recycled feed stuffs such as wheat midds left over from the flour milling business or spent grains from beer and whiskey production. So, by-products and leftover materials from the baking industry are a natural fit. Breads, snack foods and baked goods facilities produce millions of pounds

of by-products that don't meet the stringent quality specifications for human consumption due to over-baking or packaging issues. Our bakery operations use formulas created by our nutrition group to blend these materials into a single, nutrient-dense ingredient that we then use to make pig feed. Much of this material would end up in a landfill if we did not create the opportunity to repurpose the nutritional value it contains.

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## Restoring Monarch Butterfly Habitat

A significant factor contributing to the dramatic decline of the monarch population over the last three decades is loss of habitat. We have partnered with Environmental Defense Fund and Roeslein Alternative Energy in the Monarch Butterfly Habitat Exchange, a program that aims to restore 1.5 million acres of high-quality breeding habitat along the butterfly's migration route. In 2018, we contributed \$300,000 to fund the planting of monarch-friendly native milkweed and wildflower species on land near the hog farms that we own in northern Missouri. With an additional 30 new acres of prairie reconstructed in 2019 and 62 acres in 2020, we will have reconstructed 770 acres of prairie among five of our northern Missouri farms.



04

# FOOD SAFETY AND QUALITY





In 2019, we continued to achieve Global Food Safety Initiative (GFSI) certification at 100% of our applicable facilities.

We also reached our annual food safety and quality target to have zero product recalls.

In addition, we extended our position as one of the world's leading protein companies with the launch of our new portfolio of plant-based protein products under our Pure Farmland™ brand, providing alternative options to meet the evolving food preferences of consumers.

## Our Food Safety and Quality Goal

**Deliver safe, high-quality protein products**

### Our Food Safety and Quality Targets



Ensure no incidents that require a product recall



Maintain Global Food Safety Initiative (GFSI) certification at all applicable facilities



Maintain a robust food safety employee training program



Offer a variety of products for different diets and needs, and in our international operations, include products designed to address health and wellness in accordance with European Union nutrition and labeling standards





# Ensuring Food Safety and Quality

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Few industries in the United States are inspected as carefully or continuously as the food industry. In fact, we recognize that 100% of the products we make will be “inspected” by our most discerning judges — our customers and consumers. That’s why food safety and quality rests on the shoulders of every team member, from our leadership to our line workers. And it’s why we aim to instill excellence in food safety and quality at every step in our processes.



# Safe Food and Quality Assurance

Food safety and quality are among the biggest areas of risk for food producers, with serious potential consequences to the health and well-being of consumers and their families. We pride ourselves as a global leader in food safety policies, procedures and performance that are designed to monitor and mitigate these risks.

Our industry performance is supported by our utilization of the industry gold standard Global Food Safety Initiative (GFSI), a collaborative of food industry experts that drives continuous improvement in food safety management systems around the world.

One hundred percent of our applicable facilities in the United States, Poland and Romania — 52 in total — are certified to GFSI standards through audits conducted

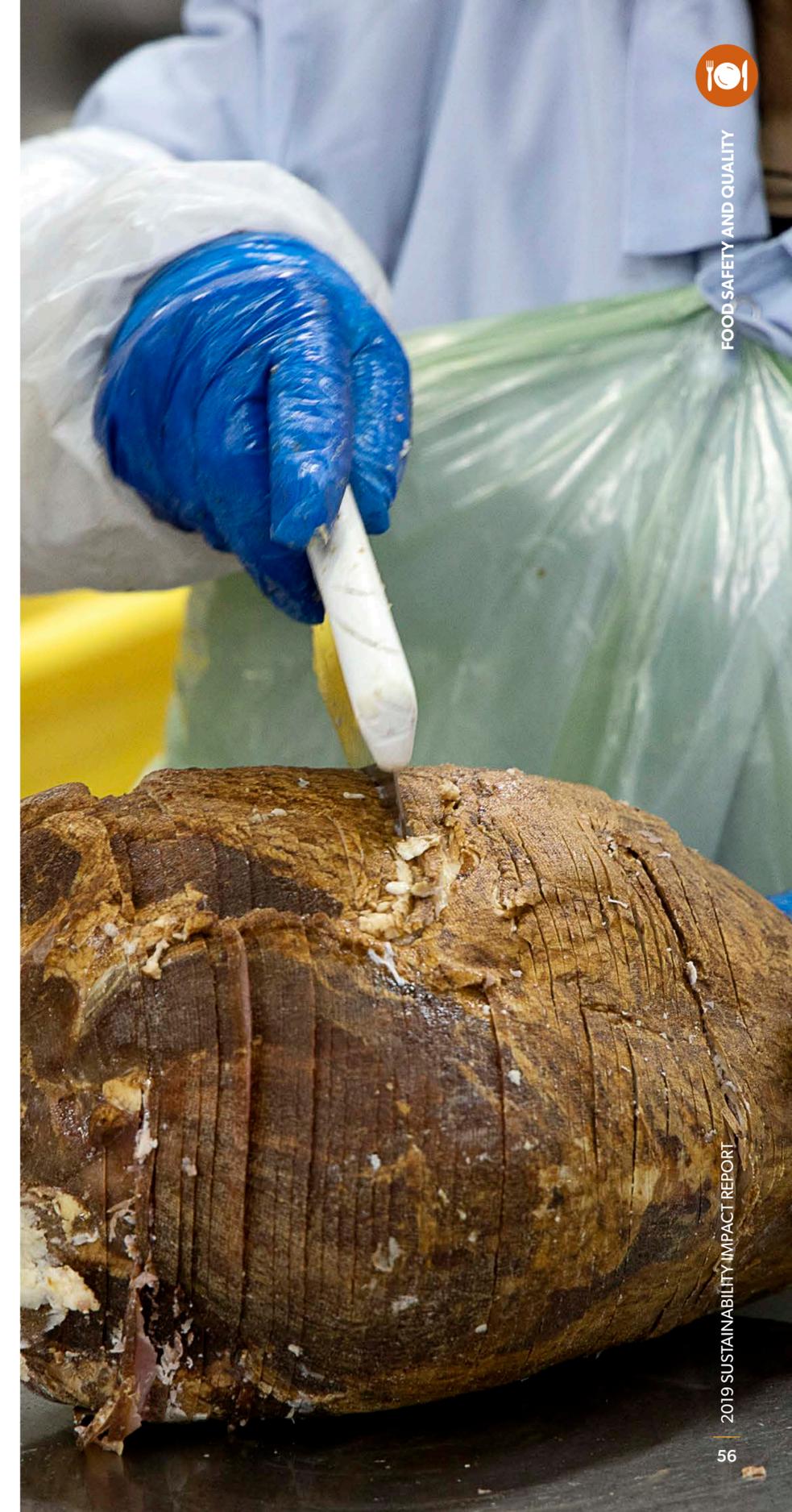
by Safe Quality Food (SQF), BRCGS, International Food Standards (ISF) and ISO 22000. We are also subject to audits from our customers. In addition, U.S. Department of Agriculture (USDA) inspectors review safety and quality procedures at our processing facilities daily, as do our internal audit teams.

All our daily food safety and quality practices are prescribed by more than 40 internal policies. Our programs are built on the hazard analysis and critical control points (HACCP) management framework. Our quality assurance plan utilizes the HACCP model as a baseline to manage key quality control points. Each plan is a living document that we update regularly in response to our understanding of best practices, industry innovations and our commitment to relentless improvement. In addition, we continuously monitor USDA

safety and quality regulations, and our in-house labs lead in the implementation of any new test requirements.

We rely on our suppliers to provide high-quality ingredients that meet or exceed our customer and consumer expectations and that comply with GFSI and HACCP requirements. Our [Supplier Code of Conduct](#) applies to vendors that supply raw meat materials, non-meat ingredients or any product packaging or casing. Suppliers must undergo annual GFSI certification or an appropriate third-party food safety and quality audit as well as a third-party animal handling audit, including a transportation audit.

The aim of our food safety and quality program is zero incidents requiring a product recall, which we achieved in 2019.





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## Empowering Employees

As the front line of our food safety and quality program, our employees learn from day one that food safety is non-negotiable, a tenet underlined by our guiding principles of Responsibility, Operational Excellence and Innovation. Facilities in United States, Poland and Romania devote thousands of hours training employees in safety procedures, HACCP requirements and food science topics.

Unique to our company, employees are invited to “audit” the products they’ve helped produce. Daily, we invite cross-functional teams — from quality and operations leadership to line workers to maintenance staff — to appraise products. The

process provides employees the opportunity to see firsthand the critical nature of the safety and quality standards they are asked to uphold and instills a sense of ownership for a day’s work well done.

As part of our Raise Your Hand campaign, we also empower our employees to stop production if they see something in their day-to-day that affects food safety or quality. Throughout the year, we recognize the efforts of our employees who identify potential product safety or quality hazards, such as defective product packaging or an incorrectly formatted code date.



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## Driving Continuous Improvements

Through our culture of continuous improvement, we have introduced robotics innovations on the line in our processing facilities. Our state-of-the-art robotics are designed to meet strict food safety guidelines, increase efficiencies for better product yields and address employee safety through the elimination of ergonomically hazardous tasks. In our facilities, we are also using new conveyor systems to move meat from one point to another in the facility, eliminating more than 50% of forklift traffic.



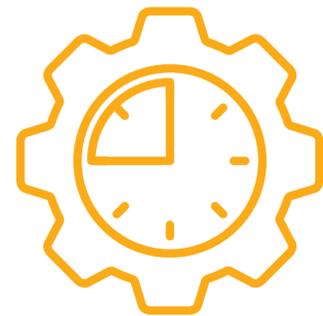


**100% of our applicable processing facilities globally are certified by the Global Food Safety Initiative, the industry's gold standard for food safety and quality programs.**



## Fostering Peer-to-Peer Training

In 2019, our facility in Romania implemented an action plan to optimize production processes that rely on manual work performed by operators, which is heavily impacted by specific skills, abilities and technological knowledge. The action plan focused on standardizing working methods, delivering individualized food safety and quality training for new employees, monitoring progress against key performance indicators, providing individual feedback and taking immediate corrective actions through coaching and mentoring sessions. Overall, we've seen positive results with process know-how and competencies of team members strengthened across all staff levels.



## Process Innovations

We also invested in a new automatic cleaning system in Romania to prewash conveyor belts and equipment used in production. This new system improves the efficiency of the cleaning process through automatic sprayers that eliminate the time intensive manual spraying process. This project has also reduced time spent on the daily sanitation process from 5 hours to 3.5 hours and reduced water consumption by 1.8 million gallons totaling \$11,000 in cost savings.





# Delivering Healthy and Nutritious Food

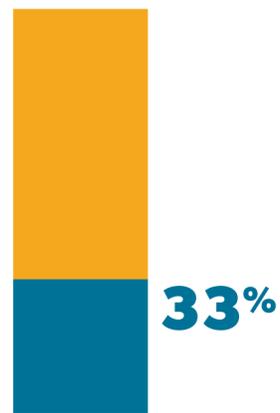
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Consumers' food preferences and their expectations of food companies continue to evolve. Consumers want to know the ingredients in their food, be able to choose healthful options and, increasingly, reach for plant-based protein alternatives to meet their flexitarian lifestyles. It's an exciting and demanding time for Smithfield chefs, food scientists and nutritionists as we innovate our product portfolios.

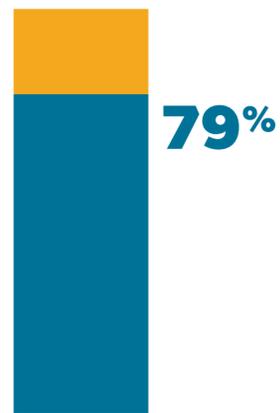


# Meeting Evolving Consumer Appetites

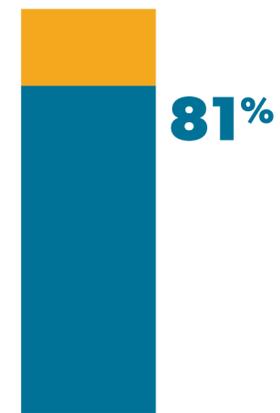
According to our research, consumers want alternative options to traditional animal-based products. We have identified three key trends driving the increase in popularity:



About one-third of U.S. adults are choosing a flexitarian eating style to consume less meat



79% of millennials eat meat alternatives and the next generation is following suit



81% of millennials are willing to pay more for a product if it comes from a sustainable brand

We also found that people are not looking to completely cut animal protein consumption. Rather, they want to combine plant-based eating with lean meats to achieve a healthier overall diet.





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## Product Innovation

We've been refining our brands to increase choices such as reduced sodium, fewer preservatives and no monosodium glutamate (MSG). In 2019, we expanded our product portfolio to meet a broad range of existing consumer needs and attract new consumers to the plant-based meat case.

With development from product conception to market taking place in a speedy six months, our Pure Farmland™ plant-based protein portfolio leverages our over 80 years of expertise in protein, agriculture, flavor development and product innovation to provide consumers with an alternative source of protein for every meal. We continued to evolve the gluten- and dairy-free brand with the planned release of our made with non-GMO soy, lower sodium, lower saturated fat protein alternatives in the spring of 2020.



Amount per serving	
<b>Calories 100</b>	
	% Daily Value*
<b>Total Fat</b> 7g	<b>9%</b>
Saturated Fat 4.5g	<b>23%</b>
Trans Fat 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 190mg	<b>8%</b>
<b>Total Carbohydrate</b> 4g	<b>1%</b>
Dietary Fiber 1g	<b>4%</b>
Total Sugars 2g	
Includes 1g Added Sugars	<b>2%</b>
<b>Protein</b> 6g	<b>11%</b>
Vitamin D 0mcg	0%
Calcium 75mg	6%
Iron 1mg	6%
Potassium 148mg	4%

\* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

**COOKING INSTRUCTIONS:** Cook Plant-Based Breakfast Patties until the internal temperature reaches 175°F. Microwave preparation is not recommended.

**STOVETOP:** Cook breakfast patties in skillet over medium to medium-high heat for about 12 minutes, turning occasionally to brown evenly.

**BROIL:** Heat broiler to high. Broil breakfast patties 4 to 6 inches from heat for about 4 minutes per side.

**INGREDIENTS:** WATER, SOY PROTEIN CONCENTRATE, COCONUT OIL, ISOLATED SOY PROTEIN, CANOLA OIL, MAPLE SYRUP, LESS THAN 2% OF SPICE, SUGAR, MAPLE SUGAR, NATURAL FLAVORINGS, SALT, SUNFLOWER OIL, SOY FIBER, RED BEET JUICE CONCENTRATE (FOR COLOR), PAPRIKA OILSOLUBLE (FOR COLOR), CULTURED DEXTROSE, MALTODEXTRIN (FROM CORN, TAPIOCA, AND POTATO), METHYLCELLULOSE, ACACIA GUM, CITRIC ACID, SOY LECITHIN.

**CONTAINS:** SOY.

**FARMLAND**  
KANSAS CITY, MO 64195  
855-411-7675

**PROUD SUPPORTER OF**



**American Farmland Trust**

For recipe ideas and more,  
visit [Pure-Farmland.com](http://Pure-Farmland.com)



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# Ingredient Transparency

As we develop our product choices, we are also making it easier for consumers to identify options available to them. Clean labels provide simpler, shorter, easier to understand lists of ingredients. Our online [Glossary of Ingredients](#) provides definitions of more than 100 ingredients found in our foods.

In our continuing effort to develop products that are simple while maintaining the utmost food safety and quality standards, we are constantly incorporating new and proven technologies in the areas

of food ingredients and processes. In our efforts to make familiar products while using common ingredients, we are developing foods that remove conventional ingredients such as lactates, nitrites and erythorbates, and replacing them with ingredients produced from vinegar, celery juice and cherry powder.

We also offer consumers a growing selection of healthy product options, including 80 different options in our Smithfield All Natural brand. In 2019, we added 10 new

choices across our brands for U.S. consumers, with health and wellness attributes that include no artificial ingredients, added nitrites or nitrates, preservatives, monosodium glutamate (MSG) or added hormones, among others. Our international operations offer a wide assortment of food products that meet all EU nutrition and labeling standards. In Poland, several recent offerings are free from preservatives, MSG and phosphates.

## Blockchain

As a vertically integrated company, we are uniquely positioned to be responsive to customer requests. We are leveraging our vertical integration to build our blockchain capabilities. Our work with [FoodLogiQ's Food Industry Blockchain Consortium](#) and the [IBM Food Trust](#) continued in 2019. Through this collaboration, we are driving customer visibility and trust into food safety and quality assurance with, for example, the publication of digitized facility audit certifications. We're also increasing product traceability, working first in partnership with a major retailer, to let consumers trace the story of our products from farm to plate.





## Alternative Proteins

Our new plant-based protein portfolio, launched in 2019 under our Pure Farmland™ brand, is designed to meet the increasingly popular flexitarian eating style with protein options for every meal of the day. The soy-based line offers a complete protein, providing all nine essential amino acids, and flavorful products that include our breakfast patties, meatballs, burger patties and pre-seasoned protein starters. The new product line uses sustainable packaging with trays made from more than 50% recycled material.



The Pure Farmland plant-based protein breakfast patties are fabulous! My family is trying to eat more plant-based and these are fantastic. We appreciate the effort by Farmland to make a product like this that actually tastes good.

- Pure Farmland Consumer



05

# HELPING COMMUNITIES





Smithfield contributes tens of millions of dollars in cash and in-kind donations each year to positively impact the communities where our employees live and work. The Smithfield Foundation, a nonprofit organization and the philanthropic arm of our company, provides a strategic lens to amplify our community initiatives in support of our social purpose.

We believe in the power of protein to end food insecurity and have donated hundreds of millions of servings of food to our neighbors in need. We believe that education has the power to dramatically strengthen communities in the long term and remain committed to funding scholarships for Smithfield families. We also believe that we can help strengthen the U.S. veteran community through our philanthropy and employment opportunities.

We strive to build long-term relationships with our community partners where the impact of our investments is greatest.



In 2019, we proudly broadened the reach of our signature Helping Hungry Homes® program, providing six million pounds of protein, the equivalent of 24 million servings, to neighbors in need across the United States. We expanded our hunger-relief efforts with donations to food pantries and food banks in states we had not reached before. We have now made donations in all 50 states.

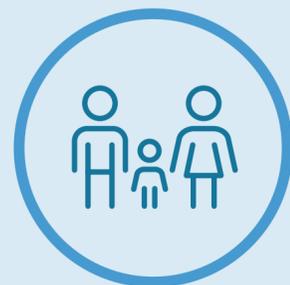
We partnered with educators, such as North Carolina State University’s Soldier to Agriculture Program, to help veterans make the transition from military service to fulfilling careers. Seventy-eight veterans took part in the program in 2019.

We also awarded three community organizations with \$1 million in donations, each between \$250,000 and \$400,000, through the Smithfield Foundation to make meaningful change in the communities we call home. These donations add to the tens of millions of dollars we invest each year through cash and in-kind donations — amounting to more than \$30 million in 2019 — to address the unique needs of our local communities.

## Our Community Goal

**Support our communities through targeted philanthropy, employee volunteerism and other engagement opportunities**

## Our Community Targets



Each facility/farm region to participate in annual community events (four events in the United States and two events internationally)



Include a stakeholder presentation during at least one event per year



Maintain hunger relief programs to help those in need

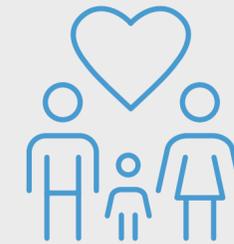


Interact with schools and students by providing school supplies, scholarship assistance and facility support



## Employee Volunteerism and Giving

Every year, our employees give their time and expertise to support their communities. In 2019, our employees volunteered nearly 10,000 hours to hunger relief, disaster support, environmental cleanups and other causes. For example, our employees in Romania donated over 600 hours on ECO Day, the 15th annual environmental cleanup of our farms and the surrounding area. Through our U.S. matching gift program, we match employee donations of at least \$100 to recognized charities one-to-one. Together we donated more than \$800,000 in 2019 through this program.



## Our 2019 Community Support

	U.S.	International
Cash donations	<b>\$8.4 million</b>	<b>\$437,000</b>
Food donations (cash value)	<b>\$21.9 million</b>	<b>\$70,000</b>
Food donations (servings)	<b>26.4 million</b>	<b>219,000</b>
Total value of donations	<b>\$30.3 million</b>	<b>\$507,000</b>





# Investing in Our Communities

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For more than eight decades, we have contributed to the communities where we live and work. Our philanthropic efforts focus largely on three signature causes that align with our business and the needs of our neighbors: hunger relief, education and veterans. We encourage our employees to volunteer and donate to these and other local causes they are passionate about.



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# Fighting Hunger Across America

According to the United States Department of Agriculture, more than 41 million Americans, from all walks of life, face hunger. As a global food company, we are committed to playing a part in hunger relief, which is the cornerstone of our social purpose and a significant focus of our community efforts.

For the past 11 years, our Helping Hungry Homes® initiative has been at the heart of those efforts. Through it, we aim to alleviate hunger and help Americans become more food secure by providing nutritious, high-quality protein to food banks, school nutrition programs, disaster relief efforts and community outreach programs.

We marked a milestone in 2019, expanding our hunger-relief efforts to reach food pantries and food banks in U.S. states we had not

reached before. Our 2019 donations of more than six million pounds of protein provided the equivalent of 24 million high-in-demand servings of protein to our neighbors in need. Since launching Helping Hungry Homes® in 2008, we have donated nearly 150 million servings across all 50 states.

In addition to our donations, our employees are active supporters of their local food banks, volunteering to help sort and distribute contributions. In September, dubbed Hunger Action Month™, people all over America stand with the Feeding America nationwide network of food banks to fight hunger. In 2019, we collected more than 45,000 pounds of non-perishable goods for our companywide food drive, tripling our 2018 contribution of 15,000 pounds.

## Supporting Hunger Relief Internationally

Hunger relief is also a core philanthropic initiative at our operations in Poland and Romania. In Poland, we work with local authorities to direct our time, money and products to school meal programs. Through our hunger-relief program in Romania, Food for Souls, we donated 27,000 pounds of protein products to non-governmental organizations (NGOs), which prepare and serve meals to people in need. In March, in honor of Food for Souls' 10th anniversary and to celebrate International Women's Day, our employees stepped into the kitchen of a local NGO to cook and serve meals to over 160 beneficiaries.



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## Partnering to Feed America

We are proud to partner with Feeding America, the United States' largest domestic hunger-relief organization, to bring nourishing food to people in need. Feeding America's 200 food banks and 60,000 food pantries and meal programs provide meals to more than 40 million people — one in seven Americans — each year.





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## D.C. Central Kitchen Capital Food Fight

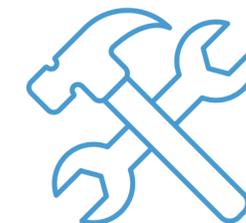
We proudly served as presenting sponsor at DC Central Kitchen's 16th annual fundraiser, Capital Food Fight, in November 2019. Capital Food Fight annually attracts some 2,000 guests, 80 tasting restaurants and a slate of battling chefs who compete to create winning dishes using set ingredients, among them, our Pure Farmland brand's Simply Seasoned Plant-Based Protein Starters. The signature fundraising event raised over \$815,000 for the non-profit's culinary training for adults with high barriers to employment and anti-hunger programs.



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## Sharing our Success with our Community

2019 marked the 25th anniversary of our hog production operations in Utah. We decided the best way to commemorate this milestone was by celebrating our community. Over the course of the year, we provided financial and in-kind donations totaling over \$55,000 to a number of local organizations, including Beaver County Food Bank, Iron County (Cedar City) Care and Share, Beaver County School District and the Beaver County Animal Shelter. Approximately 300 employees also volunteered throughout the year, donating 2,300 hours to complete over 40 charitable projects.



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## Local Infrastructure Improvements in Poland

At our facility in Daszyna, Poland, we continued to invest in local infrastructure improvements that also serve the entire community. These included investments in local wells and water treatment facilities, road and sidewalk construction, as well as the addition of a local electric power station and natural gas pipeline.

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# Education

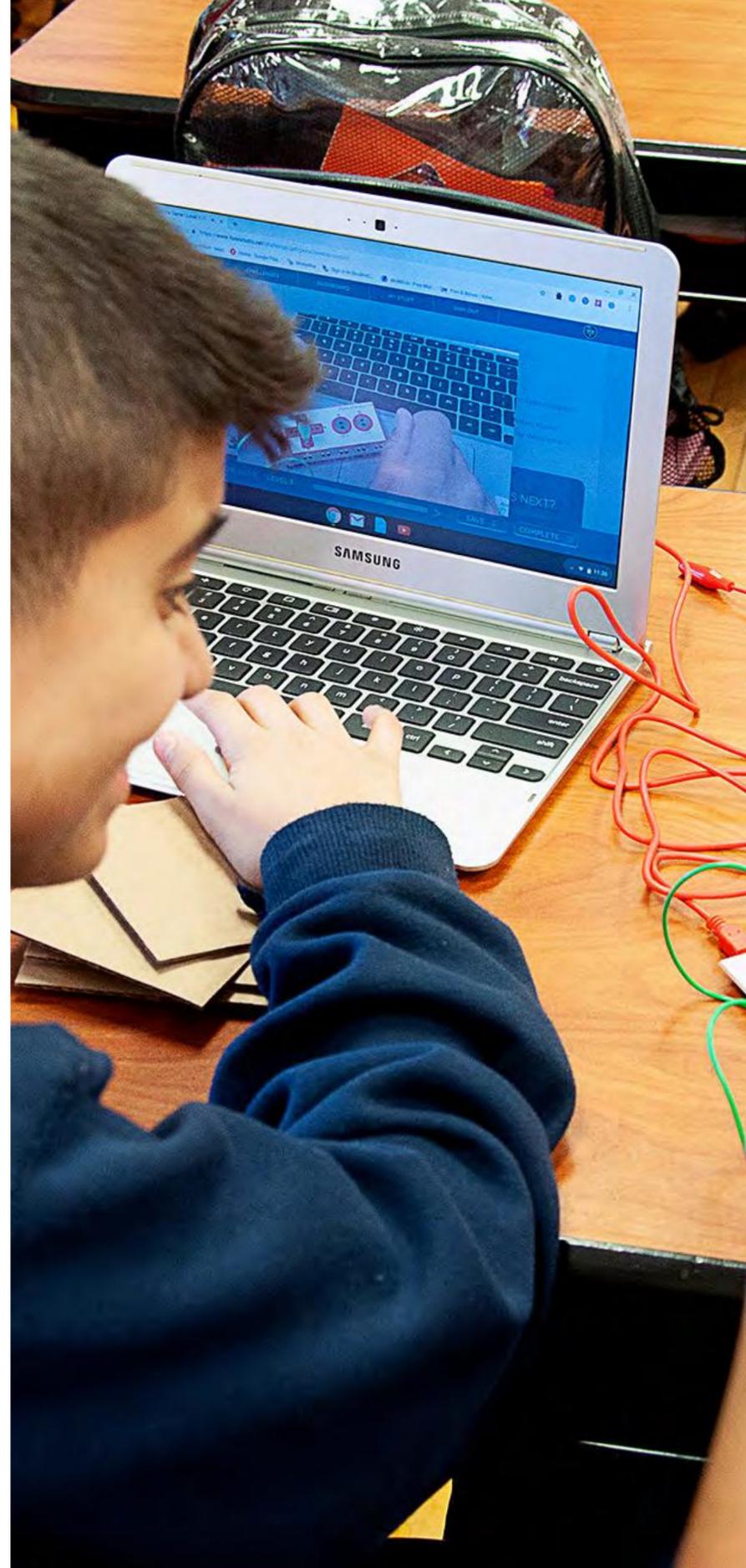
We believe education can transform people and communities. In line with our social purpose, we support a range of education initiatives that strengthen our employees, their families and our communities. In 2019, our scholarships and educational grants totalled \$4.5 million in the United States, and more than \$430,000 in Poland and Romania.

**Educational scholarships valued at nearly \$1 million** for 162 children and grandchildren of our U.S. employees

**Over 430 scholarships** to children of employees and local farmers in Poland through our Zygmunt Piwoński Smithfield Polska Foundation, which has granted more than 2,500 scholarships valued at \$1.5 million since 2002

**More than 46,000 students supported** in dozens of Romanian villages through our Back to School program, by providing backpacks, school supplies and sports equipment to preschool and primary school children and their classrooms

We also partner with educational initiatives in our communities, such as the National FFA Organization and 4-H in the United States to train the next generation of farmers. In Romania, we help prepare future specialists in animal husbandry, food processing and veterinary sciences through our internship program, Smithfield Academics. Since 2005, the program has supported nearly 450 students, including 40 interns in 2019.



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## Building Opportunities in Sioux Falls

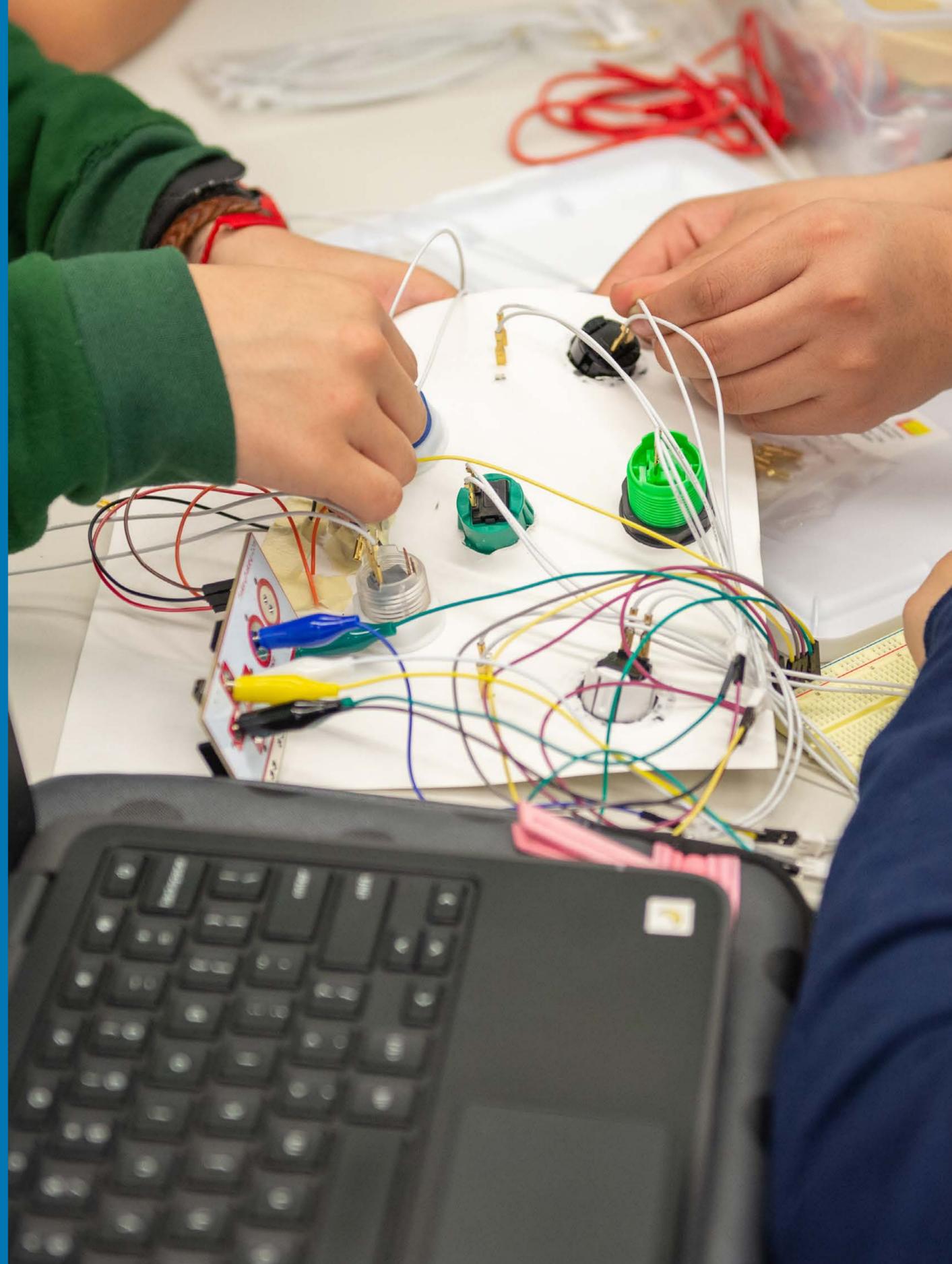
We committed \$250,000 to Southeast Technical Institute in Sioux Falls, South Dakota to help fund the school's New Opportunities for Workforce Development campaign. Our five-year commitment focuses on increasing skills training and program enrollment, scholarship expansion and the introduction of a veterinary technician program to prepare students for research, lab and animal production careers.





## Richmond After School Program

More than one-third of middle school students in Virginia care for themselves after school, and most do not participate in after-school activities. In our third year of support, our \$250,000 contribution targets the popular sports and wellness track of NextUp RVA, an afterschool program for middle school students in Richmond, Virginia. Powered by a joint effort of educators, youth providers, city and school officials, and business and community leaders, NextUp RVA's programs support increased school attendance, higher grades in key courses, reduced behavioral incidents and increased social and emotional well-being.



## Hands-on Learning Studios

Our \$350,000 grant to FUSE Studios, a high-quality and results-driven educational program, will fund 20 new STEAM (STEM plus Arts)-focused hands-on learning studios for students in our communities throughout the Midwest and North Carolina. Program participants experience an environment with abundant peer support, encouraging the development of necessary 'non-cognitive' skills, such as problem-solving, persistence and working together.



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# Supporting Veterans

We have a long history of supporting military families and veterans through philanthropic giving and initiatives such as Operation 4000!, our goal to hire and retain 4,000 veterans by the end of 2020. We continued partnerships in 2019 designed to further our efforts to help veterans transition into civilian life.

For example, we donated \$200,000 to North Carolina State University's Soldier to Agriculture Program (STAP), which provides in-depth career introductions and hands-on training to help veterans make the transition from military service to agricultural careers, which is North Carolina's top industry. Our contribution to STAP, a partnership between North Carolina State University and the Fort Bragg military base career center, near Fayetteville, North Carolina, provides funding to enable upgraded classrooms and facilities to attract veterans and offer expanded agricultural studies. In 2019, 78 veterans participated in the program.





## Extending Hunger Relief for Veterans in Need

We continue to partner with the [Virginia Peninsula Food Bank](#) to provide protein and fresh produce to veterans in need through the monthly mobile food pantry at the VA Medical Center in Hampton, Virginia. In 2019, the third year of our partnership, the program served more than 2,470 veterans and members of their families and distributed over 150,000 meals.



## Honoring the Service of Our Veterans

In September, through a grant to the [Midwest Honor Flight](#), we proudly honored the service and sacrifice of 83 World War II, Korean War and Vietnam War veterans. Our funding supported the all-expenses-paid flights of veterans from northwest Iowa, southwest Minnesota and South Dakota to Washington, D.C. During this once-in-a-lifetime experience, they visited the Arlington National Cemetery and memorials dedicated to honor their service and sacrifices.

The Midwest Honor Flight is part of the Honor Flight Network, a non-profit organization created to transport veterans to Washington to visit war memorials.



## Global Good Fund Program for Veteran Entrepreneurs

We continued our support to the [Global Good Fund](#) with a \$400,000 grant for the second consecutive year. The program provides a customized, eight-month long leadership development program to help veteran entrepreneurs grow and scale their businesses through personalized leadership development, executive mentorship, and access to capital to help invigorate their leadership growth and potential.

We have committed to continuing our support to this important program in 2020.



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**In 2019,  
we contributed  
more than  
\$1 million in  
cash and in-kind  
donations in  
cause giving.**

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## Cause Giving

We are passionate about giving back to the communities and households that purchase our products, and we believe that the best way to maximize our charitable donations is by partnering with causes that resonate with our brands and consumers. In 2019, we contributed more than \$1 million in cash and in-kind donations through domestic cause marketing programs to support hunger-relief, education, healthy communities, veterans and other programs that align with our sustainability program.

Some of our most successful brand campaigns in 2019 include:

Our **Eckrich** brand donated \$125,000 to [Extra Yard for Teachers](#) through its College Football Program. The funds will support

various DonorsChoose.org projects for teachers throughout the United States. In addition, Eckrich, with Extra Yard for Teachers and Safeway, donated \$50,000 to fund projects at Mesa, Arizona public schools and \$25,000 to [Kroger's Zero Hunger Zero Waste Campaign](#) to help combat hunger across the country.

Our **Pure Farmland** brand partnered with [American Farmland Trust](#) to preserve American farmland through a pledge to protect one square foot of farmland for every item purchased, up to \$140,000. In 2019, we donated approximately \$40,000 to the Trust based on product purchases.

Our **Kretschmar Premium Deli** brand contributed \$105,000 to [Make-A-Wish](#), supporting the nonprofit's mission of granting the wishes of children with life threatening conditions. Kretschmar

is a national, recognized sponsor of Make-A-Wish.

Our **Gwaltney** brand donated \$50,000 to [Roc Solid Foundation](#), a nonprofit that builds hope for kids fighting cancer, as part of the partnership agreement and associated in-store promotion that tied a donation amount to purchase.

**Smithfield Culinary**, the umbrella of our foodservice business, is also a corporate sustaining partner of [Children of Restaurant Employees \(CORE\)](#), which grants support to children of food and beverage service industry employees who are navigating life-altering circumstances, whether that be a death in the family, a sudden medical diagnosis or other extreme circumstances. In 2019, we donated \$63,000 to CORE.



06

PEOPLE





Our employees are our greatest asset, and we are committed to fostering a welcoming workplace that prioritizes their health and safety, learning and development, and well-being.

Our aim is to attract and retain a workforce filled with people who want to build their careers with us. We focus on a health and safety culture, underpinned by policies to guide our behavior and companywide systems to support implementation and track performance. As our company grows, we continue to invest in a diverse and inclusive ethos where our employees can learn, develop and reach their full potential.

We undertook a global audit of our facilities to confirm that the implementation of our enhanced health and safety program, Smithfield Injury Prevention System, was successfully executed and operating effectively.

Among our learning and development initiatives, we provided 300 instructor-led leadership courses engaging nearly 3,000 employees, over 16,000 hours and more than 40,000 online courses completed by approximately

7,000 employees through Smithfield University, our internal employee education program.

We continued to expand our efforts to recruit, retain and develop a diverse and inclusive workforce through our new apprenticeship initiative in North Carolina and with the creation of a fourth Employee Business Resource Group, the Black Professional Network, and through our ongoing efforts to engage and support U.S. veterans.

## Our Health and Safety Goal

## Maintain low employee injury rates

### Our Health and Safety Targets\*



Continue to reduce Total Incident Frequency Rate (TIFR) and maintain levels below the relevant industry average in the United States



Achieve annual Days Away, Restricted, or Transferred (DART) and Days Away from Work Injury and Illness (DAFWII) results better than relevant industry averages in the United States



Maintain safety engagement level at 40% or more of employees globally



All safety leadership complete at least 10 hours of health and safety-focused training globally



Meet or beat location-specific injury rate targets in Poland and Romania

\*In 2019, we discontinued our practice of reporting on each operating segment's monthly safety scorecard achievements.



# Creating a Safe Work Environment for All Employees

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Workplace health and safety is a top priority at Smithfield. We firmly believe that the health and safety of every individual working at or visiting one of our locations is our responsibility. Our health and safety systems, policies, procedures and training empower employees to put safety first in all their activities. Our ambitious targets drive our efforts to better safety performance across our operations. While we will never be satisfied with any workplace injury, in 2019, our injury and illness rates continued to be significantly better than the industry average.



# Worker Safety

As in any manufacturing industry, work in our processing facilities, much of it hands-on, can pose risks. Our enhanced health and safety program, Smithfield Injury Prevention System (SIPS), builds on our legacy safety systems to incorporate principles developed by the International Organization for Standardization. In 2019, we undertook audits in over 100 global facilities, assuring that our SIPS implementation in 2018 was successfully executed and operating effectively. We continue to drive health and safety improvements across our company with the goal of achieving companywide [ISO 45001 certification](#).

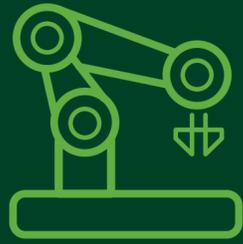
The success of our health and safety programs is underpinned by our safety engagement culture, through which we actively engaged over 45% of employees in safety activities, surpassing our target of 40%. We also provided comprehensive employee training through Smithfield University's safety-related online and instructor-led courses. In 2019, over 14,000

safety-training modules were completed across 20 safety-related subjects. Our engagement levels were on par with 2018 in the United States and increased significantly in our international operations, approximately 45% and 44% in Poland and Romania respectively.

We also held a rigorous, day-long bootcamp in 2019 to provide 48 recent safety team recruits with a robust orientation and training, as well as networking opportunities. Workshop topics included expectations and goals, OSHA recordkeeping, ergonomics, an introduction to SIPS and a rapid-fire session on Smithfield audits. Our next bootcamp is planned for 2021.

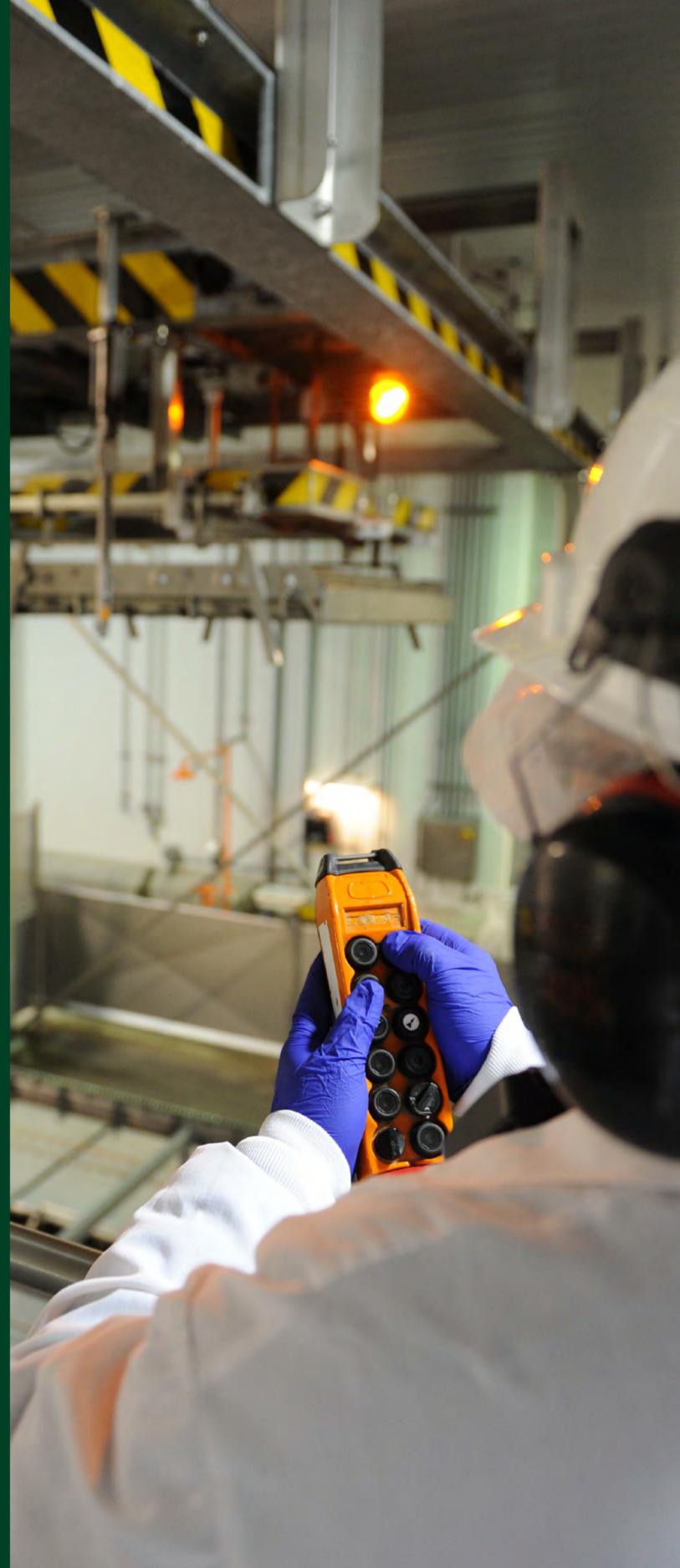
In 2019, we recorded U.S. Occupational Safety and Health Administration (OSHA) metrics on par with 2018, with the exception of our Days Away from Work Injury and Illness (DAFWII) rate, which continued to improve, falling by 6% from the previous year.

U.S. Safety Data	2015	2016	2017	2018	2019
<b>Processing Facilities</b>					
Total Incident Frequency Rate (TIFR)	4.08	3.75	3.64	3.21	<b>3.00</b>
Days Away, Restricted, Transferred Rate (DART)	2.90	2.57	2.50	2.30	<b>2.40</b>
Days Away from Work Illness and Injury Rate (DAFWII)	0.79	0.77	0.62	0.53	<b>0.50</b>
<b>Hog Farms</b>					
Total Incident Frequency Rate (TIFR)	4.60	4.20	3.80	3.30	<b>4.56</b>
Days Away, Restricted, Transferred Rate (DART)	3.30	3.10	3.00	2.30	<b>3.13</b>
Days Away from Work Illness and Injury Rate (DAFWII)	0.90	1.00	0.60	0.50	<b>0.71</b>
Number of OSHA Inspections	42	66	54	56	<b>55</b>
Number of OSHA Citations	11	29	12	15	<b>18</b>
OSHA Penalties	\$49,095	\$82,594	\$30,158	\$67,644	<b>\$67,137</b>



## Enhancing Worker Safety with Automation

We have invested tens of millions of dollars in robotics to automate production processes in our facilities. The state-of-the-art equipment addresses employee safety by eliminating ergonomically hazardous tasks and reducing floor traffic. It also meets strict food safety guidelines, while increasing efficiencies for better product yields.



## Worker Safety Employee Highlights

Workplace safety is everyone's responsibility, and we rely on the actions of each of our employees to reduce the occurrence of injuries. We celebrate the initiatives of those who go above and beyond to support our efforts.

Dora Marroquin, a safety coordinator at our St. James, Minnesota facility, steps up daily. She leads our key safety training initiatives and puts her bilingual skills to work, adding voiceovers to monthly safety training, contractor training and new hire orientation to increase awareness and aid in peoples' understanding of critical safety messages. Her dedication was evident in 2019, when she covered every shift, creating signage and translated materials for first aid and annual

employee hearing tests. Dora also manages our active release technique (ART) program, which identifies soft tissue in the body to provide massage therapy for our employees.

Linda Castillo, who supports our vet services function in our Midwest Region, which includes our farms in Colorado, Iowa, Missouri and Oklahoma, put our Responsibility, Operational Excellence and Innovation guiding principles to work to reduce the risk of ergonomic and other injuries in our sow feeding process. Linda designed a backpack application process that eliminates the need for employees to lean, reach and repeatedly scoop top dressing or liquid feed additives, as well as carry heavy five-pound buckets. For \$70 in parts, her innovation cut time and manpower to complete the task by more than half.





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## Recognizing Our Safety Heroes

Each year, our company's significant safety accomplishments are recognized by industry associations.

In 2019, the [North America Meat Institute](#) recognized 29 of our locations with worker safety awards. Eight of our locations received the Worker Safety Award of Honor, the highest award bestowed by the organization. The award recognizes facilities' high level of safety performance and its implementation of various key components of an effective safety and health program.

- Clinton, North Carolina  
(Hog production – Duplin Marketing, LLC)
- Des Moines, Iowa
- Kinston, North Carolina
- Omaha, Nebraska
- Orange City, Iowa
- Salt Lake City, Utah
- Wilson, North Carolina
- Wichita, Kansas

In addition, 21 facilities received Worker Safety Awards for outstanding achievements in workplace safety.

## 2019 Employee Recognition and Awards

We also celebrate employees through our annual internal awards programs. Our internal awards recognize facility or individual accomplishments in health and safety, sustainability and excellence across our guiding principles.

### Responsibility, Operational Excellence and Innovation Awards

*Each year, we recognize employees who improve our company by exemplifying our guiding principles — Responsibility, Operational Excellence and Innovation (ROI). The ROI Awards are designed to inspire individuals and teams to aim for excellence in everything they do. We received 360 nominations in 2019, up more than 60% from the year prior, from across our global organization. ROI Award winners received a \$5,000 prize, with a \$10,000 Grand Prize Award to the best nominee in each category.*



#### Responsibility

##### **Cheryl Feinberg – Grand Prize Winner**

Operations Manager, St. Charles, Illinois

Creating success by prioritizing people, employee safety and food safety and quality

##### **Pawel Boron, Pawel Iskrzak, Marek Stepanik, Pawel Steplen**

Poznań, Poland

Protecting our operations from African Swine Fever through vigilant attention to enhanced biosecurity protocols

#### Operational Excellence

##### **Bill Glicek – Grand Prize Winner**

Maintenance Systems Manager, Sioux City, Iowa

Helping facilities track downtime, address root causes and improve efficiencies through creation of a new computer program

##### **Sarah Ledvina**

Trade Planning Analyst, Smithfield, Virginia

Computerizing a time-consuming monthly task to save 3,900 analyst hours a year

##### **Joe Barton, Kyle Kreikemeier, John Leffler**

Lincoln, Nebraska and Kansas City, Missouri

Streamlining processes to optimize line efficiency and enhancing worker safety

#### Innovation

##### **Danny Connerly, Mistie Robertson – Grand Prize Winner**

Monmouth, Illinois

Increasing throughput in smoke houses without compromising product safety and quality

##### **Jeff Bowden, Mark Druivenga, Clint Kanne, Eduardo Lopez, Nathan Stocker**

Carroll, Iowa and Milan, Missouri

Improving product safety and quality and worker safety by replacing steel tubs with plastic

##### **Mike Johnson, Kirk Zittlau**

Sioux Falls, South Dakota

Creating a new, premium bacon product from pork ends and pieces



## Health and Safety Awards

Our Health and Safety Awards and Worker Compensation Awards annually recognize facility and individual accomplishments in safety excellence.

### Health and Safety Awards 2019 President's Award

Recognizes a facility for the highest level of safety performance

#### Wilson, North Carolina

### 2019 President's Circle

Recognizes facilities that excelled in safety performance

Animex Kutno K1	Krakow, Poland	St. James, Minnesota
Animex Kutno K2	Morliny, Poland	Suwalki, Poland
Bolingbrook, Illinois	Omaha, Nebraska	Tar Heel, North Carolina (Distribution Center)
Burgaw, NC	Opole, Poland	Timisoara, Romania
Greenfield, Indiana	Sioux City, Iowa	Toano, Virginia
Ilawa, Poland	Sioux Falls, South Dakota	Wilson, North Carolina
Junction City, Kansas	Smithfield, Virginia (Pet food facility)	
Kansas City, Missouri	St. Charles, Illinois	
Kinston, North Carolina		

### 2019 Safety Professional of the Year

For outstanding achievement and commitment to improve worker safety within our facilities and communities

#### William Mischnick

Plant Safety Manager, Denison, Iowa

### 2019 Innovation Award Winner

For an innovative concept that provides a solid impact on reducing worker injuries

#### Oklahoma Farms

Backpack tool for top dressing feed, preventing ergonomic-related injuries

#### Utah Farms

Pallet die carrier acts as a cradle for the die and attaches to a stable lift, eliminating the swaying of the die that may result in injury

### Workers' Compensation Claims Management Awards Claims Professional of the Year Award

Recognizes the unequalled commitment and measurable impact of an individual

#### Maggie Barcq

Martin City, Missouri

For her consistently strong performance within this role and her unending kindness and commitment to Martin City's employees

### Organizational Excellence Award

Recognizes a facility for ongoing excellence and sustained positive results

#### Wilson, North Carolina

For engaged and supportive performance and strong, sustained results

### Worker Compensation Innovation Award

Recognizes creativity and innovation, resulting in financial savings or process improvement

#### Denison, Iowa

For its Rehab Visions In-House Physical Therapy program, saving \$75,000 in travel costs and reducing time off work for employees

## Sustainability Awards

Our Sustainability Awards annually recognize achievements by individuals or teams in six areas: community, energy, packaging, training and education, waste and water.

### 2019 President's Award

Recognizes a facility for achieving significant water and cost savings through utilization of teamwork including management, engineering, maintenance, production, quality, and sanitation

#### Wilson, North Carolina

Lowered facility water use by an impressive 50% since 2016 and generated \$227,000 in water and utility cost savings annually by implementing multiple projects

### 2019 Zero Hero Award

Recognizing a colleague who has demonstrated excellence in sustainable practices and made a significant contribution to our goal of 100% compliance

#### Kelley Brown

Regulatory Compliance Manager  
Burgaw, North Carolina

Bolstered the facility's environmental standing, led the ISO 14001 certification implementation efforts for environmental management, and under her leadership, the Burgaw facility has not received any notices of violation

### 2019 Sustainability Award – Community

#### Timișoara, Romania

Participated in an environmental revitalization project that gathered team members to clean, refurbish and rejuvenate green areas surrounding our farms

#### North Carolina Hog Production – Duplin Marketing

Provided over \$3,000 in medical supplies and goods, including baby food, diapers, hygiene products, water and canned food to the Clinton Fire Department to aid in relief efforts after Hurricane Florence

### 2019 Sustainability Award – Energy

#### Denison, Iowa

Partnered with an air compressor company to conduct a comprehensive compressed air system update, which resulted in a reduction of electrical usage by 65% and savings of more than \$121,000 annually in electricity costs

### 2019 Sustainability Award – Packaging

#### Omaha, Nebraska

Reduced waste disposal by 4.5 tons per year by changing to a printed film on products instead of applied labels, saving over \$109,000 annually

### 2019 Sustainability Award – Training

#### Denver, Colorado\*

Developed a new Standard Operating Procedure for recycling materials and with these changes, improved its sorting and recycling procedures and reduced solid waste sent to landfill by over 18%

### 2019 Sustainability Award – Waste

#### Starahowice, Poland

Identified innovative alternates to obtain a higher percentage of dry matter from their wastewater treatment process and reduced the number of daily transports by half

#### Yuma, Colorado

Reduced the amount of waste going to the landfill through four different projects resulting in more than \$41,600 in savings

### 2019 Sustainability Award – Water

#### Arnold, Pennsylvania

Re-evaluated convection cooking ovens to be more efficient, creating an annual cost savings of more than \$139,580 and over 3.2 million gallons annually

#### Lincoln, Nebraska

Installed water monitors to control the concentration of chemicals in their cooling water system at no cost and reduced the city surcharges on effluent by 14.5%, saving more than 15 million gallons of water annually

\* The Denver, CO facility was closed at the end of December 2019.





# Ensuring a Best-in-Class Workplace

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Our more than 54,000 employees working across 32 U.S. states and five countries are instrumental in helping us achieve our mission to produce good food in a responsible way. We are committed to creating a fair, ethical and accountable work environment. We also want our employees' work experience with us to be rich and fulfilling, and so we invest in training and education opportunities to help them advance their careers, diversity and inclusion initiatives to create a welcoming workplace and programs to support their health and well-being needs.



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# Recruitment

The United States could face a manufacturing labor shortage that would leave as many as 2.4 million jobs in the sector unfilled by 2028, according to a 2018 report by Deloitte and The Manufacturing Institute. Factors such as the out-dated assumptions of what modern manufacturing looks like and the changing nature of jobs due to technology and automation are contributing to the shortage.

To help meet this challenge, we continue to educate potential employees about the career opportunities and culture at our company. We also invest in innovative programs to attract the skills-based talent we need. In 2019, we launched an apprenticeship initiative that gives participants hands-on engineering and mechanic training while they also earn associate degrees. As our employees, apprentices receive free tuition, salary and benefits, and they become full-time employees upon graduation. We welcomed our first cohort at Wayne Community College in Goldsboro, North Carolina in September 2019 and launched our Nebraska program in March 2020 as we continue to expand the initiative across the country, partnering with colleges in communities where we operate.

We continued other key initiatives as we plan for our workforce for the long term. These include a four-year high school technical training curriculum in Romania that graduated its first mechanics employee in 2019. Three early-career programs (Career Foundation, Internships and Manager in Training) target recent college graduates entering the job market at our U.S. and international locations. In addition, our college and university recruitment partnerships with Historically Black Colleges and Universities, Hispanic Association of Colleges and Universities, and Minorities in Agriculture, Natural Resources and Related Sciences are ongoing, with the aim of attracting diverse employees.

Our operations in Romania face a particularly tight labor market. After considering available options, we began to recruit from outside the EU. Our human resources team set up the necessary documentation and work visas for prospective employees. At the end of 2019, we employed approximately 80 international personnel from Vietnam through this initiative. In Poland, we are also recruiting from out of country to meet a 30% anticipated growth over the next three to five years. In parallel, we are focused on skills training and managerial development in order to promote from within.





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## Learning and Development

We want our employees to reach their full potential, and we are committed to creating opportunities to help them continue to learn and grow on the job. Our learning and development programs provide a range of educational resources to help our employees excel. Among our 2019 achievements:

**Smithfield University** provided 300 instructor-led leadership courses engaging nearly 3,000 employees over 16,000 hours and more than 40,000 online courses completed by approximately 7,000 employees.

Our **ACHIEVEmentorship** program engaged approximately 150 U.S. mentees matched with experienced mentors based on their interests and expertise.

**Strategic Operations Leadership Experience (SOLE)**, a new leadership program introduced in 2019, strengthens the leadership capabilities of high-performing facility and general managers. Our first cohort will graduate in early 2020.

Our ongoing **Tuition Assistance** program contributed approximately \$800,000 to 510 employees for training and education to enhance job-related knowledge, skills and proficiency.

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# Diversity and Inclusion

A diverse workforce allows us to benefit from a variety of perspectives and strengthens our global competitiveness. We are committed to attracting, training and maintaining diverse employees and leadership who reflect the marketplace we serve.

Our Employee Business Resource Groups (EBRGs) are an expanding area of focus as we continue to create a supportive and engaging environment. New in 2019, the Black Professional Network is helping us achieve our mission and vision by attracting, retaining, developing and promoting Black and African-American leaders. Our EBRGs help employees fully leverage their diverse backgrounds to achieve personal and professional goals. The Black Professional Network joins Women's Connect, our first EBRG; Smithfield NEXT, connecting the millennial generation; and Smithfield Salutes, our veterans focused EBRG.





## Creating Opportunities for Veteran Talent

Smithfield Salutes is just one aspect of our commitment to veterans. Veterans are not only an important part of our society, they also bring valuable skills and expertise to the workforce. Contrary to many hiring initiatives, Operation 4000! is not solely focused on hiring, but also on training, retaining and employing for the long-term 4,000 veterans — 10% of our workforce — by the end of 2020. We added approximately 700 veterans to our workforce in 2019.

In our effort to help our veteran employees build lifelong careers, we offer tailored training and development opportunities. In January 2019, we launched our new Military Supervisor in Training program, a 52-week cohort-based curriculum designed to provide essential skills training to select high-potential veterans who will become production supervisors in

our facilities. Our aim is to provide a place for our veteran trainees to thrive, and over the course of the year, we create opportunities for them to develop meaningful relationships with their supervisors and connect with our culture, all important factors in employee retention.

We also continued to partner with on-base military transition services in seven states. In April, we added a physical presence at Fort Bragg military base in North Carolina with an on-site military talent acquisition specialist housed on the base to reach service members interested in transitioning to civilian life. In addition, we attended 50 military job fairs in 13 states, interacting with over 1,300 military veterans at these events.

We were awarded Best for Vets Employers 2019 rankings from the *Military Times* for our efforts to recruit and support service members, veterans and military families.



## Our Workforce by the Numbers

### 2019 U.S. Workforce Diversity

	Executives	Executives %	Hourly	Hourly %	Salaried	Salaried %	Companywide #	Companywide %
American Indian or Alaskan Native	-	0%	469	1.4%	64	0.9%	533	<b>1.3%</b>
Asian	3	2.7%	3,005	9.1%	218	3.1%	3,226	<b>8.0%</b>
Black or African-American	1	0.9%	10,681	32.3%	887	12.6%	11,569	<b>28.8%</b>
Hispanic	1	0.9%	11,166	33.7%	824	11.7%	11,991	<b>29.9%</b>
Native Hawaiian or Other Pacific Islander	-	0.0%	90	0.3%	11	0.2%	101	<b>0.3%</b>
Two or more ethnicities	-	0.0%	328	1.0%	68	1.0%	396	<b>1.0%</b>
White	107	95.5%	7,224	21.8%	4,884	69.5%	12,215	<b>30.2%</b>
Not Specified	-	0.0%	142	0.4%	70	1.0%	212	<b>0.5%</b>
<b>TOTAL</b>	<b>112</b>	<b>100%</b>	<b>33,105</b>	<b>100%</b>	<b>7,026</b>	<b>100%</b>	<b>40,243</b>	<b>100%</b>

### 2019 U.S. Workforce by Age and Gender

	Female	Male	<30	30-50	50+	Total
Executive Leadership*	786	2,716	210	1,650	1,642	<b>3,502</b>
Number of full-time employees	14,830	25,197	7,322	17,778	14,927	<b>40,027</b>
Percentage of employees	37%	63%	18%	44%	37%	

### 2019 International Workforce by Age and Gender

	Female	Male	<30	30-50	50+	Total
Number of full-time employees	8,051	7,102	2,906	8,033	4,214	<b>15,153</b>
Percentage of employees	53%	47%	19%	53%	28%	

\*Executive leadership category consists of individuals at the vice president level and above.

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# Employee Health and Wellness

Our comprehensive benefits program is designed to offer peace of mind through quality, flexible and affordable support. Our portfolio covers medical and prescription benefits, dental and vision care, health savings and flexible spending accounts, insurance, as well as 401K and pension plans. In addition, employees can opt into accident, critical illness and identity theft insurance.

Preventative health and wellness programs provide all insurable employees with education and screenings in diabetes management, asthma, smoking cessation advice and medication and maternity management support. Approximately 2,700 employees and their dependents took advantage of these programs in 2019, on par with 2018.

We also offer incentives for employee health assessments. This preventative health care program helps our employees understand their current health and adjust their lifestyle for a healthier future. In 2019, over 1,000 employees participated in the program, nearly double the number in 2018.

In 2019, 18 of our U.S. locations hosted health fairs where community health and wellness representatives and employee benefits providers were on-hand to offer information and advice. Mobile mammogram buses, chair massages and flu shots are also typically offered at these events. Mammograms and flu shots are covered by our health plan.



## Farmer Livelihoods

We partner with more than 3,200 contract farmers in the United States and internationally. We believe through our reliable, long-term relationships, we offer them opportunities to diversify their family farms, make investments for the future and stabilize their incomes. Our partnership also takes many forms. We are an ever-present advocate for our farmers, communities and the industry on legislative issues, youth education, local grain procurement and agronomic services, and local and regional infrastructure needs. We are proud to be seen as an anchor in many of the areas where we operate, a notion that starts with our commitment to our grower partners and communities.

Jennifer Daniels recognizes that and more. As one of our grower partners in North Carolina, she uses us as a resource to learn about best practices in animal care as well as new opportunities like our industry-leading manure-to-energy platform. She also is active in our community programs, volunteering with us at the state fair and during food drives.



“

Smithfield is a leader in animal care. As a Smithfield partner, together, we are taking care of the food we raise, the environment and the community.

- Jennifer Daniels

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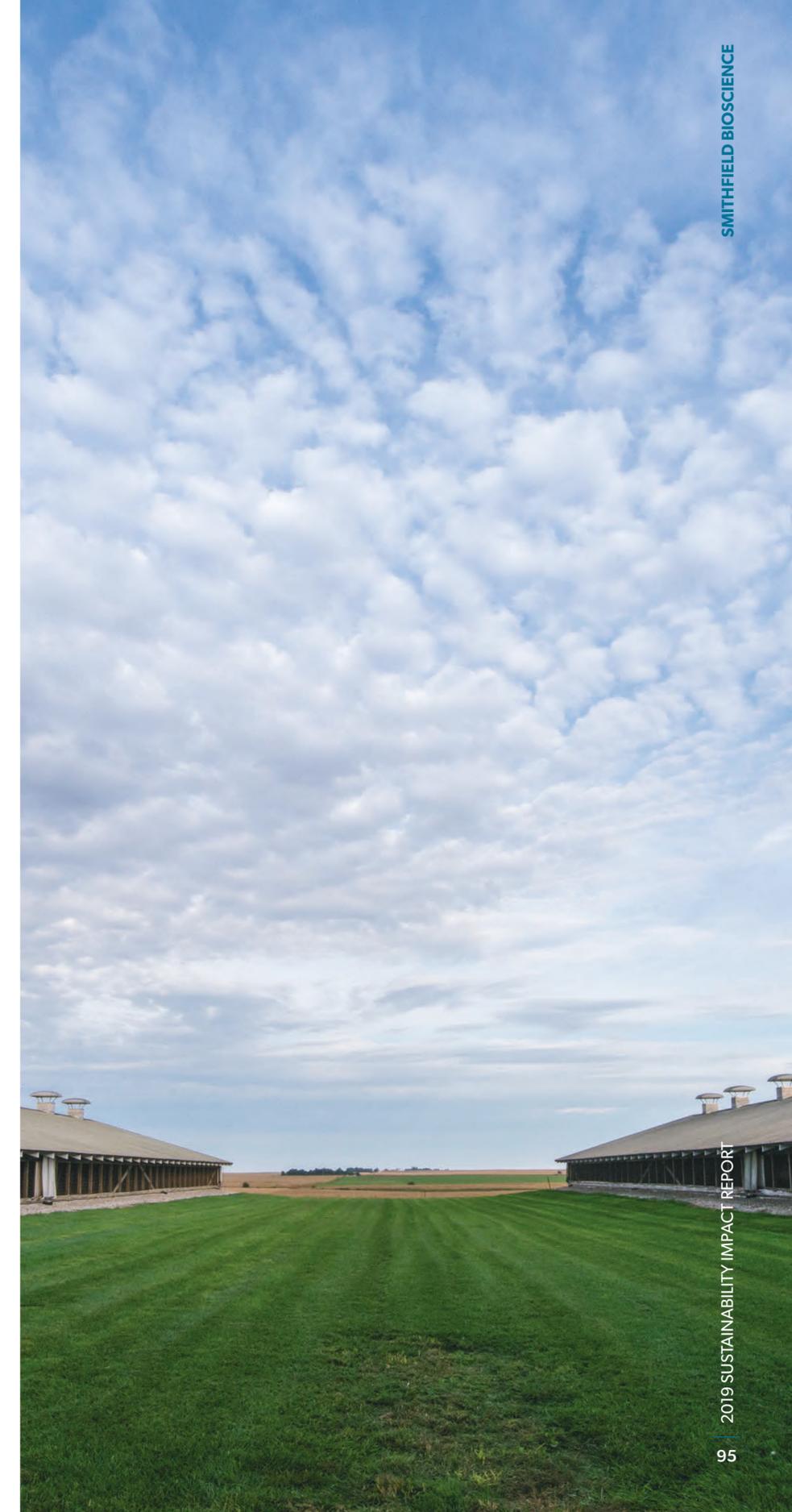
# Forward-Looking Information

This report contains “forward-looking” statements within the meaning of the federal securities laws. The forward-looking statements include statements concerning our outlook for the future, as well as other statements of beliefs, future plans and strategies or anticipated events, and similar expressions concerning matters that are not historical facts. Our forward-looking information and statements are subject to risks and uncertainties that could cause actual results to differ materially from those expressed in, or implied by, the forward-looking statements.

These risks and uncertainties include, but are not limited to, the availability and prices of live hogs, feed ingredients (including corn), raw materials, fuel and supplies, food safety, livestock disease, live hog production costs, product pricing, the competitive environment and related market conditions, risks associated with our indebtedness, including cost increases due to rising interest rates or changes in debt ratings or outlook, hedging risk, adverse weather conditions, operating efficiencies, changes in foreign currency exchange rates, access to capital, the cost of compliance with and changes to regulations and laws,

including changes in accounting standards, tax laws, environmental laws, agricultural laws and occupational, health and safety laws, adverse results from litigation, actions of domestic and foreign governments, labor relations issues, credit exposure to large customers, the ability to realize the anticipated strategic benefits of the acquisition of Smithfield Foods, Inc., by WH Group, the ability to make effective acquisitions and successfully integrate newly acquired businesses into existing operations and other risks and uncertainties described under “Item 1A. Risk Factors.”

Readers are cautioned not to place undue reliance on forward-looking statements because actual results may differ materially from those expressed in, or implied by, the statements. Any forward-looking statement that we make speaks only as of the date of such statement, and we undertake no obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise. Comparisons of results for current and any prior periods are not intended to express any future trends or indications of future performance, unless expressed as such, and should only be viewed as historical data.



# General Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure
<b>Organizational Profile</b>			
102-1	Name of organization	Fully	Smithfield Foods
102-2	Activities, brands, products and services	Fully	<a href="#">About Smithfield</a>   <a href="#">Trusted Brands</a>
102-3	Location of headquarters	Fully	<a href="#">About Smithfield</a>   <a href="#">Our Operations</a>
102-4	Location of operations	Fully	<a href="#">Our Operations</a>
102-5	Ownership and legal form	Fully	Smithfield is a wholly owned subsidiary of Hong Kong-based WH Group Limited, a publicly traded company with shareholders around the world. For more information on WH Group and its operations, visit <a href="http://www.wh-group.com">www.wh-group.com</a> .
102-6	Markets served	Fully	Our products are sold to more than 5,200 customers in over 40 countries on every continent (except Antarctica), including supermarket and hotel chains, wholesale distributors, restaurants, hospitals and other institutions. We also sell to companies that further process our meats into consumer food products.
102-7	Scale of the organization	Fully	Smithfield Foods employed 55,288 individuals in 2019. <a href="#">Our Operations</a>
102-8	Information on employees and other workers	Fully	<a href="#">Our Workforce By The Numbers, p. 92</a>
102-9	Supply chain	Fully	<a href="#">Responsible Supply Chain Management, p. 48</a>   <a href="#">Sustainability Governance, p. 18</a>
102-10	Significant changes to the organization and its supply chain	Fully	Smithfield had no significant changes to size, structure or ownership during the reporting period.
102-11	Precautionary principle or approach	Fully	<p>As discussed in the respective sections of this report, we evaluate and address risks as part of our management systems for key sustainability issues, including animal welfare, environmental stewardship, food safety and quality, local communities and our employees. These issues are periodically evaluated by Smithfield’s sustainability team and company leadership. The company may take certain precautionary actions from time to time on a case-by-case basis; however, we do not apply the precautionary principle as a matter of policy.</p> <p>The precautionary principle (or approach) is a moral or political principle that was included in the Rio Declaration on Environment and Development from the United Nations Environment Programme, which defined is as follows: “Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost effective measures to prevent Environmental degradation.”</p>

# General Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure
102-12	External initiatives	Fully	<a href="#">Stakeholder Engagement, p. 14</a>
102-13	Membership of associations	Fully	<a href="#">Stakeholder Engagement, p. 14</a>
<b>Strategy</b>			
102-14	Statement from senior decision maker	Fully	<a href="#">A Message to Our Stakeholders, p. 4</a>
102-15	Key impacts, risks and opportunities	Fully	<a href="#">Sustainability Governance, p. 18</a>
<b>Ethics and Integrity</b>			
102-16	Values, principles, standards and norms of behavior	Fully	In our quest to maintain our leadership position in our industry, we are guided by the following principles: Responsibility, Operational Excellence and Innovation. We believe that adhering to these principles creates value for our business, as well as for a broad range of stakeholder groups, including customers, consumers, employees and local communities. <a href="#">Our Policies</a>
102-17	Mechanisms for advice and concerns about ethics	Fully	<a href="#">Sustainability Governance, p. 18</a>
<b>Governance</b>			
102-18	Governance structure	Fully	<a href="#">Sustainability Governance, p. 18</a>
102-19	Delegating Authority	Fully	<a href="#">Sustainability Governance, p. 18</a>
102-20	Executive-level responsibility for economic, environmental and social topics	Fully	<a href="#">Sustainability Governance, p. 18</a>   <a href="#">Identifying What Matters Most, p. 13</a>
102-21	Consulting stakeholders on economic, environmental and social topics	Fully	<a href="#">Identifying What Matters Most, p. 13</a>
102-22	Composition of the highest governance body and its committees	Fully	Smithfield is governed by a five-member board of directors, which includes the chairman of the WH Group and Smithfield’s president and CEO. Our board of directors elects executive officers to hold office until the next annual meeting of the board, until their successors are elected, or until their resignation or removal.

# General Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure
102-23	Chair of the highest governance body	Fully	The chairman of Smithfield’s board of directors also serves as chairman and CEO of WH Group. Although the listing standards of the New York Stock Exchange (NYSE) no longer apply to us, the board of directors has nevertheless used those standards to evaluate the independence of our directors. Under the NYSE’s standards, none of our directors are independent.
102-24	Nominating and selecting the highest governance body	Fully	Smithfield’s current President and CEO, Kenneth M. Sullivan, was appointed by WH Group. Smithfield’s board of directors does not have an audit committee and the full board of directors performs the functions typically performed by a selection committee. Directors are chosen, in part, based upon their qualifications, skills and experience in our industry.
102-25	Conflicts of Interest	Fully	Smithfield’s Conflicts of Interest Policy can be found in the company’s Code of Business Conduct and Ethics (Code). The purpose of the Code is to ensure that our decisions are based on business needs, not on personal interests or relationships. <a href="#">Code of Business Conduct and Ethics</a>   <a href="#">Supplier Code of Conduct</a>
102-26	Role of highest governance body in setting purpose, values and strategy	Fully	Smithfield’s board of directors tasks the president and CEO, along with senior executives, with setting the purpose, values and strategy for the company. <a href="#">A Message to Our Stakeholders, p. 4</a>   <a href="#">Q&amp;A with Our Chief Sustainability Officer, p. 6</a>
102-27	Collective knowledge of highest governance body	Fully	Smithfield’s chief sustainability officer regularly meets with our president and CEO and other senior management to discuss economic, environmental, social and other sustainability-related topics pertaining to Smithfield and the industry.
102-28	Evaluating the highest governance body’s performance	Fully	<a href="#">Sustainability Governance, p. 18</a>
102-29	Identifying and managing economic, environmental and social impacts	Fully	<a href="#">Sustainability Governance, p. 18</a>
102-30	Effectiveness of risk management processes	Fully	Smithfield’s board of directors periodically monitors and reports on economic, environmental and social topics and their potential material impacts, risks and opportunities for our operations. <a href="#">Sustainability Governance, p. 18</a>
102-31	Review of economic, environmental and social topics	Fully	Smithfield’s board of directors periodically monitors and reports on economic, environmental and social topics and their potential material impacts, risks and opportunities for our operations. <a href="#">Identifying What Matters Most, p. 13</a>

# General Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure
102-32	Highest governance body's role in sustainability reporting	Fully	Smithfield's board of directors does not play an active role in reporting about sustainability matters. Our executive vice president of corporate affairs and compliance and our chief sustainability officer formally review and approve our annual sustainability impact report, including the coverage of all material aspects. <a href="#">Identifying What Matters Most, p. 13</a>
102-33	Communicating critical concerns	Fully	Smithfield's chief sustainability officer regularly meets with our president and CEO to discuss economic, environmental, social and other sustainability-related topics.
102-35	Remuneration policies	Fully	Smithfield does not currently tie executive pay to sustainability performance. Our executive compensation philosophy is to motivate our executive officers to continually to improve operating performance. To achieve this goal, our executive compensation program is designed to reward for individual and company performance.
102-36	Process for determining remuneration	Fully	Smithfield does not use remuneration consultants. Our board of directors is responsible for developing and administering the compensation program for executive officers and other key employees. The board of directors may delegate some or all of its responsibilities to one or more committees whenever necessary to comply with any statutory or regulatory requirements or otherwise deemed appropriate by the board of directors.
102-37	Stakeholders' involvement in remuneration	Fully	Smithfield's board of directors is responsible for developing and administering the compensation program for executive officers and other key employees. The board of directors may delegate some or all of its responsibilities to one or more committees whenever necessary to comply with any statutory or regulatory requirements or otherwise deemed appropriate by the board of directors. The board of directors has the authority to retain consultants and other advisors to assist the board of directors with its duties and has sole authority to approve the fees and other retention terms of such consultants and advisors.
<b>Stakeholder Engagement</b>			
102-40	List of stakeholder groups	Fully	<a href="#">Stakeholder Engagement, p. 14</a>
102-41	Collective bargaining agreements	Fully	We have both unionized and nonunionized facilities in the US. In this reporting period, approximately 63 percent of our workforce* in the United States was covered by collective bargaining agreements. If a facility has union representation, we honor and comply with the terms and conditions of the collective bargaining agreement. We have not identified any Smithfield operations in which the right to exercise freedom of association and collective bargaining may be at risk. <i>*Figure includes U.S. Distribution Centers, Facilities and DSD branches</i> <a href="#">People, p. 77</a>

# General Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure
102-42	Identifying and selecting stakeholders	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Stakeholder Engagement, p. 14</a>   <a href="#">Sustainability Governance, p. 18</a>
102-43	Approach to stakeholder engagement	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Stakeholder Engagement, p. 14</a>   <a href="#">Sustainability Governance, p. 18</a>
102-44	Key topics and concerns raised	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Stakeholder Engagement, p. 14</a>   <a href="#">Sustainability Governance, p. 18</a>
<b>Reporting Practice</b>			
102-45	Entities included in the consolidated financial statements	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">About Smithfield</a>   <a href="#">Our Operations</a>
102-46	Defining report content and topic boundaries	Fully	We expect a variety of stakeholders to use this report, including the following: employees; customers and suppliers with whom we do business; consumers of our products; governments and regulatory agencies; nongovernmental organizations; and members of the communities where we operate. <a href="#">Identifying What Matters Most, p. 13</a>
102-47	List of material topics	Fully	<a href="#">Identifying What Matters Most, p. 13</a>
102-48	Restatements of information	Fully	There are no restatements from Smithfield Foods in 2019.
102-49	Changes in report	Fully	The scope and aspects of this report had no significant changes from the previous reporting period.
102-50	Reporting period	Fully	January 1, 2019 – December 31, 2019
102-51	Date of most recent report	Fully	Our 2018 Sustainability Report launched in May 21, 2019
102-52	Reporting cycle	Fully	We report on our sustainability process annually.
102-53	Contact point for questions regarding the report	Fully	<a href="#">Contact Us</a>
102-54	Claims of reporting in accordance with GRI Standards	Fully	This report has been prepared in accordance with the GRI Standard: Core option.
102-55	GRI Content Index	Fully	This GRI Index is in accordance with GRI Standard.
102-56	External Assurance	Fully	Smithfield did not seek external assurance for this report.

# Economic Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure	SDG
<b>201: Economic Performance</b>				
103	Management approach	Fully	<a href="#">A Message to Our Stakeholders, p. 4</a>   <a href="#">Identifying What Matters Most, p. 13</a>	--
201-1	Direct economic value generated and distributed	Fully	<a href="#">About Smithfield</a>   <a href="#">Trusted Brands</a>   <a href="#">Our Operations</a>	
201-2	Financial implications and other risks and opportunities due to climate change	Fully	As an agriculture-based company, changes to the climate and weather patterns could affect key inputs to our business as the result of shifts in temperatures, water availability, precipitation and other factors. Both the cost and availability of corn and other feed crops, for example, could be affected. The regulation or taxation of carbon emissions could also affect the prices of commodities, energy and other inputs to our business. We believe there could also be opportunities for us as a result of heightened interest in alternative energy sources, including those derived from manure and participation in carbon markets.  However, it is not possible at this time to predict the complete structure or outcome of any future legislative or regulatory efforts to address greenhouse gas (GHG) emissions and climate change. There can be no assurance that GHG regulation will not have a material adverse effect on our financial position or results of operations.	
201-3	Defined benefit plan obligations and other retirement plans	Fully	<a href="#">Employee Health and Wellness, p. 93</a>   <a href="#">Smithfield Careers</a>	
201-4	Financial assistance received from government	Fully	Smithfield did not receive any significant financial assistance from the federal or state governments during this reporting period.	
<b>202: Market Presence</b>				
103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Ensuring a Best-in-Class Workplace, p. 87</a>	<b>8</b>
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	Fully	In 2019, the average hourly wage across Smithfield’s domestic operations was \$19.71, including salaried personnel — significantly above the current federal minimum wage of \$7.25 an hour.	
202-2	Proportion of senior management hired from the local community	Fully	Smithfield works to hire locally wherever possible; when hiring for senior management, we seek qualified candidates from across the country.  <a href="#">Our Workforce By the Numbers, p. 92</a>	
<b>203: Indirect Economic Impacts</b>				
103	Management approach	Fully	<a href="#">A Message to Our Stakeholders, p. 4</a>   <a href="#">Q&amp;A with Our Chief Sustainability Officer, p. 6</a>   <a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Helping Communities, p. 65</a>	<b>2, 4</b>
203-1	Infrastructure investments and services supported	Fully	<a href="#">Helping Communities, p. 65</a>	
203-2	Significant indirect economic impacts	Fully	<a href="#">Helping Communities, p. 65</a>	

# Economic Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure	SDG
<b>204: Procurement Practices</b>				
103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Stakeholder Engagement, p. 14</a>	<b>8</b>
204-1	Proportion of spending on local suppliers	Fully	We do not currently track spending based on proximity to the end destination of given products, resources, or services. <a href="#">Responsible Grain Production, p. 49</a>   <a href="#">Supplier Code of Conduct</a>	
G4 204: FP1	Percentage of purchased volume from suppliers compliant with company's sourcing policy	Fully	<p>All our suppliers must be certified under the Pork Quality Assurance® Plus (PQA® Plus) program and all hogs must be delivered to our facilities by live animal truck drivers certified by the Transport Quality Assurance® (TQA®) program. In this reporting period, 98.3% of live animals were delivered by PQA Plus certified suppliers; 95.6% of supplier locations were site assessed; and 100% of drivers delivering animals to our facilities were TQA certified.</p> <p>Europe has established animal welfare standards through legislation that is implemented by the Veterinary Authorities in member countries. The requirements focus on employee training and certification, physical alterations, antibiotic use and housing. Animal transport drivers are certified by either transport or veterinary authorities. We require our suppliers to meet the applicable European standards. In Europe, 100% of our pig supply met the sow housing requirements. Our Polish poultry suppliers report they all meet the housing requirements.</p> <p>Smithfield has been standardizing vendor requirements for our ingredient and packing suppliers. Virtually all of them are compliant with our food safety sourcing policy.</p>	
G4 204: FP2	Percentage of purchased volume, which is verified as being in accordance with credible, internationally recognized responsible production standards, broken down by standard	Fully	<p>90% of our facilities participate in the U.S. Department of Agriculture's Process Verified Program (PVP), which validates our programs including our company's requirement that all pigs are traceable to farm of origin and are raised in the United States. Our PVP programs monitor aspects of traceability, Pork Quality Assurance® Plus (PQA® Plus) adherence on farms, and Transport Quality Assurance® (TQA®) status of drivers. All hog farms that send animals to fresh pork facilities must participate in the TQA program. Additionally, many external suppliers participate in and meet all the requirements of the PVP.</p> <p>100% of company-owned farms, feed mills and processing facilities in Poland and Romania are certified to International Organization for Standardization (ISO) 14001 standards. In Europe, our hog farms follow all European Union farming regulations.</p> <p>100% of our facilities in Poland and Romania maintain all applicable certifications to international and federal food safety standards (e.g., ISO 22000, British Retail Consortium and International Featured Standards).</p> <p>Our Polish and Romanian fresh pork processing facilities receive approximately 50% and 100%, respectively, of their hogs from contract growers for which we confirm compliance with applicable European Animal Welfare laws. Our fresh meat facilities, company-owned farms and contract growers in Poland and Romania are subject to many European animal welfare standards. The Veterinary Authority in each country routinely conducts animal welfare inspections of fresh meat facilities and pig and poultry farming operations to assure compliance with the animal welfare legislation. Overall for international operations, we did not receive any penalties for animal welfare noncompliance in this reporting period.</p>	

# Economic Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure	SDG
<b>205: Anti-corruption</b>				
103	Cu67777Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>	--
205-1	Operations assessed for risks related to corruption	Fully	We perform an annual risk assessment of our operations for risks related to corruption. No significant risks of corruption have been identified to date. <a href="#">Sustainability Governance, p. 18</a>   <a href="#">Code of Business Conduct and Ethics</a>	
205-3	Confirmed incidents of corruption and actions taken	Fully	Smithfield had no incidents of corruption in this reporting period.	
<b>206: Anti-competitive behavior</b>				
103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Sustainability Governance, p. 18</a>   <a href="#">Code of Business Conduct and Ethics</a>	--
206-1	Legal actions for anti-competitive behavior, anti-trust and monopoly practices	Fully	There were no such legal actions in this reporting period.	

# Environmental Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure	SDG					
<b>301: Materials</b>									
103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Enhancing Operational-Efficiency Across our Business, p. 42</a>   <a href="#">Environmental Policy</a>	<b>12</b>					
301-1	Materials used by weight or volume	Fully	U.S. Facilities and Farms						
			<b>Total Waste Disposition (tons)</b>						
				<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
			Cardboard recycled	27,833	26,724	27,288	27,173	28,702	29,552
			Metals recycled	2,016	2,153	3,973	3,318	3,367	5,981
			Plastics recycled	884	1,259	2,395	1,655	1,579	2,259
			Wastewater sludge land applied	12,120	52,775	47,573	38,531	37,149	42,743
			Material composted	28,358	20,512	20,819	24,374	21,594	19,384
			Material anaerobically digested	16,673	29,285	9,851	17,654	16,949	28,765
			Waste to energy	14,506	25,916	39,261	41,660	50,038	53,383
			Hazardous waste	13	9.3	9.4	7.5	37.1	13.5
			Universal waste	37	62.4	28.7	27.2	18.8	19.4
			Solid waste to landfill	65,400	70,946	71,373	68,590	74,674	52,806
			<b>TOTAL</b>	<b>167,840</b>	<b>229,642</b>	<b>222,571</b>	<b>222,990</b>	<b>234,108</b>	<b>234,904</b>
			<i>*Does not include manure management</i>						
International Facilities and Farms									
<b>Solid Waste to Landfill (pounds in millions)</b>									
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>			
Solid waste to landfill	14.4	12.8	13.4	11	9.9	11.31			
<i>*Does not include manure management</i>									

# Environmental Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure	SDG																																																																						
301-2	Recycled input materials used	Partially	We aim to incorporate recycled materials into packaging for final products and in some instances, recycled content is included in our corrugated packaging; however, options are limited to materials that ensure products stay fresh during transportation, refrigeration and handling. In addition, any packaging that directly touches food must meet federal regulatory requirements and packages must meet certain specifications to allow for temperature fluctuations and high humidity. (Recycled fiber packaging, for example, generally does not perform well in such conditions.) Moreover, for fresh meats, packaging must be able to accommodate variations in the size, shape and weight of each cut of meat. As a result, the vast majority of packaging must come from virgin materials until more suitable recycled options become available.																																																																							
<b>302: Energy</b>																																																																										
103	Management approach	Fully	<a href="#">Q&amp;A with Our Chief Sustainability Officer, p. 6</a>   <a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">UN SDGs, p. 12</a>   <a href="#">Innovating for a Clean Energy Future, p. 37</a>   <a href="#">Farm and Facility Efficiency, p. 46</a>   <a href="#">Environmental Policy</a>	7																																																																						
302-1	Energy consumption within the organization	Partially	<p>U.S. Facilities and Farms</p> <table border="1"> <thead> <tr> <th>Direct and Indirect Energy Use by Fuel Type (gigajoules in millions)</th> <th>2014</th> <th>2015</th> <th>2016</th> <th>2017</th> <th>2018</th> <th>2019</th> </tr> </thead> <tbody> <tr> <td>Natural gas</td> <td>8.27</td> <td>8.85</td> <td>6.99</td> <td>9.40</td> <td>10.54</td> <td>10.7</td> </tr> <tr> <td>Propane</td> <td>1.40</td> <td>1.31</td> <td>1.55</td> <td>1.35</td> <td>1.66</td> <td>1.53</td> </tr> <tr> <td>No. 2 oil (Includes transportation diesel)</td> <td>0.74</td> <td>0.75</td> <td>0.90</td> <td>0.86</td> <td>0.96</td> <td>0.94</td> </tr> <tr> <td>No. 6 oil</td> <td>0.13</td> <td>0.00</td> <td>0.00007</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> </tr> <tr> <td>Biogas</td> <td>0.30</td> <td>0.44</td> <td>0.24</td> <td>0.27</td> <td>0.18</td> <td>0.98</td> </tr> <tr> <td><b>Total direct energy use</b></td> <td><b>10.84</b></td> <td><b>11.35</b></td> <td><b>9.68</b></td> <td><b>11.88</b></td> <td><b>13.34</b></td> <td><b>13.28</b></td> </tr> <tr> <td>Electricity</td> <td>5.78</td> <td>5.96</td> <td>6.06</td> <td>5.94</td> <td>6.56</td> <td>6.41</td> </tr> <tr> <td><b>Total indirect energy use</b></td> <td><b>5.78</b></td> <td><b>5.96</b></td> <td><b>6.06</b></td> <td><b>5.94</b></td> <td><b>6.56</b></td> <td><b>6.41</b></td> </tr> <tr> <td><b>Total energy use</b></td> <td><b>16.62</b></td> <td><b>17.31</b></td> <td><b>15.74</b></td> <td><b>17.82</b></td> <td><b>19.90</b></td> <td><b>19.68</b></td> </tr> </tbody> </table>	Direct and Indirect Energy Use by Fuel Type (gigajoules in millions)	2014	2015	2016	2017	2018	2019	Natural gas	8.27	8.85	6.99	9.40	10.54	10.7	Propane	1.40	1.31	1.55	1.35	1.66	1.53	No. 2 oil (Includes transportation diesel)	0.74	0.75	0.90	0.86	0.96	0.94	No. 6 oil	0.13	0.00	0.00007	0.00	0.00	0.00	Biogas	0.30	0.44	0.24	0.27	0.18	0.98	<b>Total direct energy use</b>	<b>10.84</b>	<b>11.35</b>	<b>9.68</b>	<b>11.88</b>	<b>13.34</b>	<b>13.28</b>	Electricity	5.78	5.96	6.06	5.94	6.56	6.41	<b>Total indirect energy use</b>	<b>5.78</b>	<b>5.96</b>	<b>6.06</b>	<b>5.94</b>	<b>6.56</b>	<b>6.41</b>	<b>Total energy use</b>	<b>16.62</b>	<b>17.31</b>	<b>15.74</b>	<b>17.82</b>	<b>19.90</b>	<b>19.68</b>	
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302-3	Energy intensity	Partially	<p>In 2019, Smithfield U.S. operations had an energy intensity ratio of 0.113 gigajoules/cwt. Calculated by using our absolute energy consumption 19,682,950 gigajoules and 174,235,376 cwt.</p> <p>In 2019, Smithfield International operations had an energy intensity ratio of 0.104 gigajoules/cwt. Calculated by using our absolute energy consumption 3,014,721 gigajoules and 28,923,233cwt</p> <p><a href="#">GRI 302-1</a></p>																																																																
302-4	Reduction of energy consumption	Fully	<p>Since 2014, Smithfield U.S. Operations have seen a 2.7% increase in normalized energy consumption. [The increase in energy from our baseline year is due in large part to the increase in transportation diesel for our hog production operations. We have decreased the number of contract haulers, therefore increasing the number of in-house haulers. We have also acquired quite a few new farms in North Carolina the last year.]</p> <p>Since 2014, Smithfield International Operations have seen a 14% decrease in normalized energy due to decreased usage of fuels such as coal, steam and diesel oil.</p> <p><a href="#">Innovating for a Clean Energy Future, p. 37</a>   <a href="#">Farm and Facility Efficiency, p. 46</a></p>																																																																

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103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">UN SDGs, p. 12</a>   <a href="#">Water Stewardship, p. 44</a>   <a href="#">Water Policy</a>	<b>6</b>																																																																																				
303-1	Water withdrawal by source	Partially	<p>U.S. Facilities and Farms</p> <table border="1"> <thead> <tr> <th>Water Sources (billions of gallons)</th> <th>2014</th> <th>2015</th> <th>2016</th> <th>2017</th> <th>2018</th> <th>2019</th> </tr> </thead> <tbody> <tr> <td>Groundwater</td> <td>4.552</td> <td>4.694</td> <td>4.666</td> <td>4.58</td> <td>5.40</td> <td>5.19</td> </tr> <tr> <td>Municipal</td> <td>3.843</td> <td>4.171</td> <td>4.176</td> <td>4.34</td> <td>4.82</td> <td>4.95</td> </tr> <tr> <td>Surface water</td> <td>0.794</td> <td>0.94</td> <td>0.94</td> <td>0.97</td> <td>1.02</td> <td>1.00</td> </tr> <tr> <td>Reused and recycled</td> <td>0.467</td> <td>0.501</td> <td>0.295</td> <td>0.32</td> <td>0.16</td> <td>0.26</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Water Discharge (billions of gallons)</th> <th>2014</th> <th>2015</th> <th>2016</th> <th>2017</th> <th>2018</th> <th>2019</th> </tr> </thead> <tbody> <tr> <td>Public-owned wastewater treatment plant</td> <td>3.042</td> <td>3.23</td> <td>3.406</td> <td>3.26</td> <td>3.61</td> <td>3.45</td> </tr> <tr> <td>Direct</td> <td>2.444</td> <td>2.771</td> <td>2.625</td> <td>2.79</td> <td>2.73</td> <td>2.8</td> </tr> <tr> <td>Land irrigation</td> <td>2.506</td> <td>2.451</td> <td>3.159</td> <td>2.35</td> <td>2.23</td> <td>3.29</td> </tr> </tbody> </table> <p>International Facilities and Farms</p> <table border="1"> <thead> <tr> <th>Water Sources (billions of gallons)</th> <th>2014</th> <th>2015</th> <th>2016</th> <th>2017</th> <th>2018</th> <th>2019</th> </tr> </thead> <tbody> <tr> <td>Groundwater</td> <td>1.09</td> <td>1.26</td> <td>1.27</td> <td>1.37</td> <td>1.41</td> <td>1.45</td> </tr> <tr> <td>Municipal</td> <td>0.6</td> <td>0.65</td> <td>0.65</td> <td>0.65</td> <td>0.64</td> <td>0.56</td> </tr> </tbody> </table>	Water Sources (billions of gallons)	2014	2015	2016	2017	2018	2019	Groundwater	4.552	4.694	4.666	4.58	5.40	5.19	Municipal	3.843	4.171	4.176	4.34	4.82	4.95	Surface water	0.794	0.94	0.94	0.97	1.02	1.00	Reused and recycled	0.467	0.501	0.295	0.32	0.16	0.26	Water Discharge (billions of gallons)	2014	2015	2016	2017	2018	2019	Public-owned wastewater treatment plant	3.042	3.23	3.406	3.26	3.61	3.45	Direct	2.444	2.771	2.625	2.79	2.73	2.8	Land irrigation	2.506	2.451	3.159	2.35	2.23	3.29	Water Sources (billions of gallons)	2014	2015	2016	2017	2018	2019	Groundwater	1.09	1.26	1.27	1.37	1.41	1.45	Municipal	0.6	0.65	0.65	0.65	0.64	0.56	
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303-2	Water sources significantly affected by withdrawal of water	Partially	<p>To ensure our operations have a sustainable water supply, we used the World Resources Institute (WRI) Global Water Tool and the Global Environmental Management Initiative (GEMI) Local Water Tool in 2016 to assess risk associated with local water supplies where we operate. The results, which are applicable for several years, indicate our operations face little to no risk, do not significantly impact local water supplies, and none of our water comes from protected sources. For the few operations facing limited risk, we monitor water availability and potential changes closely.</p> <p>We have proposals to start a new assessment process in 2020.</p>																																																																																					
303-3	Water recycled and reused	Fully	In 2019, Smithfield recycled and reused 260 million gallons of water, which represents 2.3% of the total water usage in U.S. facilities and farms.																																																																																					

# Environmental Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure	SDG																																			
<b>304: Biodiversity</b>																																							
304-1	Operational site owned, leased, managed in, or adjacent to, protected	Fully	It is our understanding that there are no protected habitats near our operations.	--																																			
304-2	Significant impacts of activities, products and services on biodiversity	Fully	As a company, we minimize and avoid adverse impacts on biodiversity by not operating in protected habitats or areas of high biodiversity value. We support biodiversity and wildlife conservation efforts when we can make a meaningful contribution. It is our understanding that there are no protected species with habitats near our operations. Several facilities feature buffers and other natural areas in an effort to preserve local natural habitat. <a href="#">Restoring Monarch Butterfly Habitat, p. 51</a>																																				
304-3	Habitats protected or restored	Fully	Several farms feature buffers and other natural areas in an effort to restore and preserve local natural habitat for pollinators and monarch butterflies. <a href="#">Restoring Monarch Butterfly Habitat, p. 51</a>																																				
304-4	UCN Red List species and national conservation list species with habitats in areas affected by operations	Fully	It is our understanding that there are no protected species with habitats near our operations.																																				
<b>305: Emissions</b>																																							
103	Management approach	Fully	<a href="#">Q&amp;A with Our Chief Sustainability Officer, p. 6</a>   <a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">UN SDGs, p. 12</a>   <a href="#">Innovating for a Clean Energy Future, p. 37</a>   <a href="#">Farm and Facility Efficiency, p. 46</a>   <a href="#">Environmental Policy</a>	<b>7, 13</b>																																			
305-1	Direct (Scope 1) GHG emissions	Partially	<p>U.S. Facilities</p> <table border="1"> <thead> <tr> <th>GHG Emissions (normalized)</th> <th>2014</th> <th>2015</th> <th>2016</th> <th>2017</th> <th>2018</th> <th>2019</th> </tr> </thead> <tbody> <tr> <td>(metric tons CO<sub>2</sub>e/cwt)</td> <td>0.0106</td> <td>0.0098</td> <td>0.0100</td> <td>0.0098</td> <td>0.0099</td> <td>0.0098</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Direct and Indirect GHG Emissions</th> <th>2014</th> <th>2015</th> <th>2016</th> <th>2017</th> <th>2018</th> <th>2019</th> </tr> </thead> <tbody> <tr> <td>Carbon dioxide (CO<sub>2</sub>) emissions (metric tons)</td> <td>1,057,299</td> <td>1,089,596</td> <td>1,120,687</td> <td>1,113,098</td> <td>1,236,369</td> <td>1,209,545</td> </tr> <tr> <td>Methane (CH<sub>4</sub>) emissions (metric tons CO<sub>2</sub>e)</td> <td>2,290</td> <td>2,330</td> <td>2,397</td> <td>1,839</td> <td>2,554</td> <td>2,511</td> </tr> </tbody> </table>	GHG Emissions (normalized)	2014	2015	2016	2017	2018	2019	(metric tons CO <sub>2</sub> e/cwt)	0.0106	0.0098	0.0100	0.0098	0.0099	0.0098	Direct and Indirect GHG Emissions	2014	2015	2016	2017	2018	2019	Carbon dioxide (CO <sub>2</sub> ) emissions (metric tons)	1,057,299	1,089,596	1,120,687	1,113,098	1,236,369	1,209,545	Methane (CH <sub>4</sub> ) emissions (metric tons CO <sub>2</sub> e)	2,290	2,330	2,397	1,839	2,554	2,511	
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Disclosure Number	Disclosure Title	Status	2019 Disclosure							SDG	
305-2	Energy indirect (Scope 2) GHG emissions	Partially	International Facilities								
			<b>GHG Emissions (normalized)</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>		
			(metric tons CO <sub>2</sub> e/cwt)	0.0159	0.0152	0.0143	0.0136	0.0137	0.0142		
			<b>Direct and Indirect GHG Emissions</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>		
			Carbon dioxide (CO <sub>2</sub> ) emissions (metric tons)	227,067	235,131	247,860	257,515	244,186	254,436		
			Methane (CH <sub>4</sub> ) emissions (metric tons CO <sub>2</sub> e)	196	211	212	213	194	180		
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			<b>GHG Emissions (normalized)</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>		
			(metric tons CO <sub>2</sub> e/cwt)	0.0106	0.0098	0.0100	0.0098	0.0099	0.0098		
			<b>Direct and Indirect GHG Emissions</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>		
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Innovating for a Clean Energy Future, p. 37

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Disclosure Number	Disclosure Title	Status	2019 Disclosure							SDG	
305-4	GHG emissions intensity	Partially	U.S. Facilities								
			<b>GHG Emissions (normalized)</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>		
			(metric tons CO <sub>2</sub> e/cwt)	0.0106	0.0098	0.0100	0.0098	0.0099	0.0098		
			International Facilities								
			<b>GHG Emissions (normalized)</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>		
			(metric tons CO <sub>2</sub> e/cwt)	0.0159	0.0152	0.0143	0.0136	0.0137	0.0142		
			<a href="#">Innovating for a Clean Energy Future, p. 37</a>								
305-5	Reduction of GHG emissions	Fully	Progress toward our goal to reduce GHG Emissions 25% across our entire supply chain by 2025 (Scope 1, Scope 2 and Scope 3) will be shared in 2020. In 2019, Smithfield U.S. facilities reduced their Scope 1 and Scope 2 GHG emissions by more than 7% against a 2014 baseline. In 2019, Smithfield International facilities reduced their Scope 1 and Scope 2 GHG emissions by more than 10% against a 2014 baseline.								
			<a href="#">Innovating for a Clean Energy Future, p. 37</a>   <a href="#">GRI 305-1</a>   <a href="#">GRI 305-2</a>   <a href="#">GRI 305-4</a>								
305-6	Emissions of ozone-depleting substances (ODS)	Fully	<a href="#">Farm and Facility Efficiency, p. 46</a>								
305-7	Nitrogen oxides (NO <sub>x</sub> ), sulfur oxides (SO <sub>x</sub> ), and other significant air emissions	Partially	U.S. Facilities								
			<b>Direct and Indirect GHG Emissions</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>		
			Nitrous oxide (N <sub>2</sub> O) emissions (metric tons CO <sub>2</sub> e)	3,207	3,233	3,200	2,985	4,212	3,639		
			International Facilities								
			<b>Direct and Indirect GHG Emissions</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>		
			Nitrous oxide (N <sub>2</sub> O) emissions (metric tons CO <sub>2</sub> e)	337	276	289	292	320	309		
			<a href="#">Farm and Facility Efficiency, p. 46</a>								

# Environmental Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure	SDG																																																																																																		
<b>306: Effluents and Waste</b>																																																																																																						
103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Enhancing Operational-Efficiency Across our Business, p. 42</a>   <a href="#">Environmental Policy</a>	<b>6, 12</b>																																																																																																		
306-2	Waste by type and disposal method	Fully	<p>U.S. Facilities and Farms</p> <table border="1"> <thead> <tr> <th>Total Waste Disposition (tons)</th> <th>2014</th> <th>2015</th> <th>2016</th> <th>2017</th> <th>2018</th> <th>2019</th> </tr> </thead> <tbody> <tr> <td>Cardboard recycled</td> <td>27,833</td> <td>26,724</td> <td>27,288</td> <td>27,173</td> <td>28,702</td> <td>29,552</td> </tr> <tr> <td>Metals recycled</td> <td>2,016</td> <td>2,153</td> <td>3,973</td> <td>3,318</td> <td>3,367</td> <td>5,981</td> </tr> <tr> <td>Plastics recycled</td> <td>884</td> <td>1,259</td> <td>2,395</td> <td>1,655</td> <td>1,579</td> <td>2,259</td> </tr> <tr> <td>Wastewater sludge land applied</td> <td>12,120</td> <td>52,775</td> <td>47,573</td> <td>38,531</td> <td>37,149</td> <td>42,743</td> </tr> <tr> <td>Material composted</td> <td>28,358</td> <td>20,512</td> <td>20,819</td> <td>24,374</td> <td>21,594</td> <td>19,384</td> </tr> <tr> <td>Material anaerobically digested</td> <td>16,673</td> <td>29,285</td> <td>9,851</td> <td>17,654</td> <td>16,949</td> <td>28,765</td> </tr> <tr> <td>Waste to energy</td> <td>14,506</td> <td>25,916</td> <td>39,261</td> <td>41,660</td> <td>50,038</td> <td>53,383</td> </tr> <tr> <td>Hazardous waste</td> <td>13</td> <td>9.3</td> <td>9.4</td> <td>7.5</td> <td>37.1</td> <td>13.5</td> </tr> <tr> <td>Universal waste</td> <td>37</td> <td>62.4</td> <td>28.7</td> <td>27.2</td> <td>18.8</td> <td>19.4</td> </tr> <tr> <td>Solid waste to landfill</td> <td>65,400</td> <td>70,946</td> <td>71,373</td> <td>68,590</td> <td>74,674</td> <td>52,806</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>167,840</b></td> <td><b>229,642</b></td> <td><b>222,571</b></td> <td><b>222,990</b></td> <td><b>234,108</b></td> <td><b>234,904</b></td> </tr> </tbody> </table> <p><i>*Does not include manure management</i></p> <p>International Facilities and Farms</p> <table border="1"> <thead> <tr> <th>Solid Waste to Landfill (pounds in millions)</th> <th>2014</th> <th>2015</th> <th>2016</th> <th>2017</th> <th>2018</th> <th>2019</th> </tr> </thead> <tbody> <tr> <td>Solid waste to landfill</td> <td>14.4</td> <td>12.8</td> <td>13.4</td> <td>11</td> <td>9.9</td> <td>11.31</td> </tr> </tbody> </table> <p><i>*Does not include manure management</i></p> <p><a href="#">Enhancing Operational-Efficiency Across our Business, p. 42</a></p>	Total Waste Disposition (tons)	2014	2015	2016	2017	2018	2019	Cardboard recycled	27,833	26,724	27,288	27,173	28,702	29,552	Metals recycled	2,016	2,153	3,973	3,318	3,367	5,981	Plastics recycled	884	1,259	2,395	1,655	1,579	2,259	Wastewater sludge land applied	12,120	52,775	47,573	38,531	37,149	42,743	Material composted	28,358	20,512	20,819	24,374	21,594	19,384	Material anaerobically digested	16,673	29,285	9,851	17,654	16,949	28,765	Waste to energy	14,506	25,916	39,261	41,660	50,038	53,383	Hazardous waste	13	9.3	9.4	7.5	37.1	13.5	Universal waste	37	62.4	28.7	27.2	18.8	19.4	Solid waste to landfill	65,400	70,946	71,373	68,590	74,674	52,806	<b>TOTAL</b>	<b>167,840</b>	<b>229,642</b>	<b>222,571</b>	<b>222,990</b>	<b>234,108</b>	<b>234,904</b>	Solid Waste to Landfill (pounds in millions)	2014	2015	2016	2017	2018	2019	Solid waste to landfill	14.4	12.8	13.4	11	9.9	11.31	
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306-3	Significant spills	Fully	There were no significant spills in this reporting period.																																																																																																			
306-5	Water bodies affected by water discharges and/or runoff	Partially	<a href="#">Tracking our Performance, p. 10</a>																																																																																																			

# Environmental Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure	SDG
<b>307: Environmental Compliance</b>				
103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Sustainability Governance, p. 18</a>   <a href="#">Environmental Policy</a>	<b>6, 13</b>
307-1	Non-compliance with environmental laws and regulations	Fully	U.S. Facilities and Farms	
			<b>Compliance at Company-owned Farms and Facilities</b>	<b>2014</b> <b>2015</b> <b>2016</b> <b>2017</b> <b>2018</b> <b>2019</b>
			Notices of violation (NOVs)	18   11   18   13   18   20
			Fines (\$U.S.)	\$ 400   \$ 400   \$ 6,500   \$ 17,545   \$ 169,962   \$ 49,335
			<b>Compliance on Contract Farms</b>	<b>2014</b> <b>2015</b> <b>2016</b> <b>2017</b> <b>2018</b> <b>2019</b>
			Notices of violation (NOVs)	14   34   41   48   30   46
			International Facilities and Farms	
			<b>Compliance at Company-owned Farms and Facilities</b>	<b>2014</b> <b>2015</b> <b>2016</b> <b>2017</b> <b>2018</b> <b>2019</b>
			Notices of violation (NOVs)	5   6   7   7   5   4
			Fines (\$U.S.)	\$ 6,155   \$ 750   \$ 120   \$ 803   \$ 2,454   \$ 128
			<a href="#">Sustainability Governance, p. 18</a>	
<b>308: Supplier Environmental Assessment</b>				
103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Sustainability Governance, p. 18</a>   <a href="#">Responsible Supply Chain Management, p. 48</a>   <a href="#">Environmental Policy</a>   <a href="#">Supplier Code of Conduct</a>	--
308-1	New suppliers that were screened using environmental criteria	Fully	<p>We require that all suppliers comply with our Supplier Code of Conduct outlining our expectations regarding environmental performance, compliance, labor and human rights, product safety, animal well-being, health and safety, legal requirements and business integrity.</p> <p>Suppliers are obliged to report any regulatory noncompliance and any events that may have a negative impact on their business. We also reserve the right to audit suppliers' facilities. We also have surveyed our largest suppliers to understand what they are doing in areas such as energy reduction, natural resource use, employee safety and community giving.</p> <p><a href="#">Responsible Supply Chain Management, p. 48</a>   <a href="#">Supplier Code of Conduct</a></p>	

# Social Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure	SDG
<b>401: Employment</b>				
103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">People, p. 77</a>   <a href="#">Smithfield Careers</a>	<b>8</b>
401-1	New employee hires and employee turnover	Partially	We do not currently track employee turnover by age group or gender. Overall turnover in this reporting period was 35%.	
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Fully	Benefits are available to anyone working 30 hours or more a week. Since substantially all workers are full time, benefits are provided to nearly all employees. <a href="#">Ensuring a Best-in-Class Workplace, p. 87</a>   <a href="#">Smithfield Careers</a>	
<b>402: Labor/Management Relations</b>				
103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">People, p. 77</a>	<b>8</b>
402-1	Minimum notice periods regarding operational changes	Fully	In the event of a facility closure, we fully comply with the federal Worker Adjustment and Retraining Notification (WARN) Act, which requires 60-day notifications of plant shutdowns to employees. Under the WARN Act, we also notify state level dislocated worker units so they can offer prompt assistance.	
402-FP3	Percentage of working time lost due to industrial disputes, strikes and/or lock-outs, by country	Fully	We did not have any working lost time in the United States or in European operations due to industrial disputes, strikes and/ or lockouts in this reporting period.	
<b>403: Occupational Health and Safety (2016)</b>				
103	Management approach	Fully	Our successes in achieving world-leading levels of worker safety performance are in part a result of the rigorous safety training programs that we require for all employees. We also have made great improvements in getting employees at all levels of the company to take ownership of safety practices. Workers are identifying possible problem areas and creating solutions, and our annual safety awards recognize innovations that can better protect employees. Workers in production facilities have access to regularly scheduled, comprehensive training that focuses on providing the knowledge they need to perform their jobs safely. For managers and supervisors in those facilities, we offer programs that give clear guidance on how to connect our safety and performance processes to every employee in the facility. <b>Safe Chemical Management:</b> Safe storage and handling of ammonia and chlorine gas used at our facilities are essential to the safety of our workforce and our surrounding communities. We Tier II reports with the U.S. Environmental Protection Agency's (EPA) each calendar year for these chemicals. In recent years, Smithfield has created defined roles for the management of ammonia refrigeration and chlorine gas injection systems for our engineering, environmental and safety staff. We follow rigorous guidelines that are based on the U.S. Occupational Safety and Health Administration's (OSHA) Process Safety Management of Highly Hazardous Chemicals (PSM) standard.	<b>2, 4</b>

# Social Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure	SDG
			Our safety professionals at locations containing certain hazardous chemicals receive chemical safety and security training facilitated by the U.S. Department of Homeland Security (DHS) Chemical Anti-Terrorism Division. Ammonia is the primary refrigerant used in processing facilities. Chlorine gas is used minimally at several on site wastewater treatment facilities. For each of these substances, OSHA has established threshold quantities that only require a PSM plan for facilities with over 10,000 pounds of ammonia and > or 1,000 pounds of chlorine gas. We are going above and beyond regulations, requiring each facility to have a PSM plan in place regardless of ammonia or chlorine quantities. <a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Sustainability Governance, p. 18</a>   <a href="#">Food Quality and Safety, p. 52</a>   <a href="#">People, p. 77</a>   <a href="#">Our Policies</a>	
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and work-related fatalities.	Fully	We do not currently track injury rates or employee absenteeism by age group or gender. We have been reexamining this as part of our corporate realignment. <a href="#">Tracking our Performance, p. 10</a>   <a href="#">Worker Safety, p. 81</a>	
403-3	Workers with high incidence or high risk of disease related to their occupation	Fully	<a href="#">Worker Safety, p. 81</a>	
<b>404: Training and Education</b>				
103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">People, p. 77</a>	<b>8</b>
404-1	Average hours of training per year per employee	Fully	We do not consistently track employee training by gender or employee category.	
404-2	Programs for upgrading employee skills and transition assistance programs	Fully	<a href="#">People, p. 77</a>	
<b>405: Diversity and Equal Opportunity</b>				
103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Sustainability Governance, p. 18</a>   <a href="#">Our Workforce by the Numbers, p. 92</a>   <a href="#">Code of Business Conduct and Ethics</a>	<b>8</b>
405-1	Diversity of governance bodies and employees	Fully	<a href="#">Our Workforce by the Numbers, p. 92</a>	
<b>406: Non-discrimination</b>				
103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Sustainability Governance, p. 18</a>   <a href="#">Code of Business Conduct and Ethics</a>	<b>8</b>
406-1	Incidents of discrimination or corrective actions taken	Fully	In 2019, Smithfield was not involved in any incidents of discrimination.	

# Social Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure	SDG
<b>407: Freedom of Association and Collective Bargaining</b>				
103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Sustainability Governance, p. 18</a>   <a href="#">Code of Business Conduct and Ethics</a>   <a href="#">Supplier Code of Conduct</a>   <a href="#">Human Rights Policy</a>	8
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Fully	All of our employees have the right to exercise freedom of association and collective bargaining. <a href="#">Code of Business Conduct and Ethics</a>   <a href="#">Supplier Code of Conduct</a>   <a href="#">Human Rights Policy</a>	
<b>408: Child Labor</b>				
103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Sustainability Governance, p. 18</a>   <a href="#">Code of Business Conduct and Ethics</a>   <a href="#">Supplier Code of Conduct</a>   <a href="#">Human Rights Policy</a>	--
408-1	Operations and suppliers at significant risk for incidents of child labor	Fully	We have not identified any operations as having significant risk or incidents of child labor. Our business overall is not at high risk because we do not source high risk agricultural commodities, conflict minerals or finished consumer products or components containing such material. <a href="#">Code of Business Conduct and Ethics</a>   <a href="#">Supplier Code of Conduct</a>   <a href="#">Human Rights Policy</a>	
<b>409: Forced or Compulsory Labor</b>				
103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Sustainability Governance, p. 18</a>   <a href="#">Code of Business Conduct and Ethics</a>   <a href="#">Supplier Code of Conduct</a>   <a href="#">Human Rights Policy</a>	--
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Fully	We have not identified any operations as having significant risk for incidents of forced or compulsory labor. Our business overall is not at high risk because we do not source high risk agricultural commodities, conflict minerals or finished consumer products or components containing such material. <a href="#">Code of Business Conduct and Ethics</a>   <a href="#">Supplier Code of Conduct</a>   <a href="#">Human Rights Policy</a>	
<b>410: Security Practices</b>				
103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Sustainability Governance, p. 18</a>   <a href="#">Code of Business Conduct and Ethics</a>   <a href="#">Supplier Code of Conduct</a>   <a href="#">Human Rights Policy</a>	--
410-1	Security personnel training in human rights policies or procedures	Fully	Smithfield outsources security management with a third party. Security personnel at Smithfield locations have been trained according to their own organization's policies which include equal employment non-discriminatory work practices, prohibitions against harassment and violence, as well as employee health and safety policies, etc. Beginning in 2020, security personnel will receive training on Smithfield Foods Human Rights Policy.	

# Social Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure	SDG
<b>411: Rights of Indigenous Peoples</b>				
103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Sustainability Governance, p. 18</a>   <a href="#">Code of Business Conduct and Ethics</a>   <a href="#">Supplier Code of Conduct</a>   <a href="#">Human Rights Policy</a>	--
411-1	Incidents of violations involving rights of indigenous peoples	Fully	Smithfield did not have any incidents of violations involving rights of indigenous people in this reporting period. <a href="#">Code of Business Conduct and Ethics</a>   <a href="#">Supplier Code of Conduct</a>   <a href="#">Human Rights Policy</a>	
<b>412: Human Rights Assessment</b>				
103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Sustainability Governance, p. 18</a>   <a href="#">Code of Business Conduct and Ethics</a>   <a href="#">Supplier Code of Conduct</a>   <a href="#">Human Rights Policy</a>	<b>8</b>
412-1	Operations that have been subject to human rights reviews or impact assessments	Fully	Smithfield has the right to, but does not currently, conduct audits of suppliers to evaluate supplier compliance with company standards against trafficking and slavery in supply chains. <a href="#">Code of Business Conduct and Ethics</a>   <a href="#">Supplier Code of Conduct</a>   <a href="#">Human Rights Policy</a>	
412-2	Employee training on human rights policies or procedures	Fully	Smithfield has a robust Human Rights Policy that is grounded in our company's Code of Conduct. The policy supports fundamental human rights. We are not aware of any significant investment agreements that include human rights clauses or human rights screening. <a href="#">Code of Business Conduct and Ethics</a>   <a href="#">Supplier Code of Conduct</a>   <a href="#">Human Rights Policy</a>	
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Fully	Smithfield requires that our employees understand and adhere to the Smithfield Code of Business Conduct and Ethics (Code of Conduct), which, among other things, certifies that employees will comply with all applicable laws and regulations. Human trafficking and slavery are violations of such laws and would constitute a violation of our Code of Conduct. We do not conduct specific training at this time on our Code of Conduct or on our Human Rights Policy. The Human Rights Policy and Code of Conduct apply to 100 percent of our employees and board members. <a href="#">Code of Business Conduct and Ethics</a>   <a href="#">Supplier Code of Conduct</a>   <a href="#">Human Rights Policy</a>	
<b>413: Local Communities</b>				
103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Helping Communities, p. 65</a>	<b>2,4</b>
413-1	Operations with local community engagement, impact assessments, and developed programs	Fully	<a href="#">Helping Communities, p. 65</a>	

# Social Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure	SDG
<b>414: Supplier Social Assessment</b>				
103	Management approach	Fully	<a href="#">Sustainability Governance, p. 18</a>   <a href="#">Supplier Code of Conduct</a>	--
414-1	New suppliers that were screened using social criteria	Fully	Smithfield has the right to, but does not currently, conduct audits of suppliers to evaluate supplier compliance with company standards against trafficking and slavery in supply chains.	
<b>415: Public Policy</b>				
103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Sustainability Governance, p. 18</a>	--
415-1	Political contributions	Fully	<p>Since 2000, the Smithfield Political Action Committee (HAMPAC) has assisted numerous state and federal candidates in both major political parties in their bids for elected office. Contributions by HAMPAC are made objectively and on a bipartisan basis that includes consideration of the candidate’s voting record, leadership committee assignments and interest and commitment to issues of importance to our company and industry. The candidates that HAMPAC and its donors have supported understand the issues of importance to our industry and have stood with us as policy and regulatory champions. This report has been prepared to inform contributors how their funds are being used by HAMPAC.</p> <p>In 2019, HAMPAC made a total of \$46,500.00 financial contributions to U.S. federal candidates seeking office or re-election. Also, in 2019, HAMPAC made a total of \$6,000.00 financial contributions to state-level candidates seeking office or re-election. In states where corporate contributions are permissible, Smithfield made a total of \$153,000.00 financial and in-kind contributions to state and local-level candidates seeking office or re-election. Neither HAMPAC nor Smithfield made any in-kind contributions to U.S. federal, state or local candidates in 2019.</p> <p>Neither HAMPAC nor Smithfield made a financial or in-kind contribution to any international (non-U.S.) candidate. Additionally, neither HAMPAC nor Smithfield made any indirect political contributions in 2019.</p> <p><a href="#">Public Policy, p. 18</a></p>	
<b>416: Customer Health and Safety</b>				
103	Management approach	Fully	There are senior level food safety managers at each of our segments and all managers undergo specialized training in food safety issues. Across our operations, we have dozens of food safety and food science professionals (including a team of leading industry microbiologists), who are responsible for ensuring food safety management and product quality.	--

# Social Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure	SDG
			<p>Our Corporate Affairs and Sustainability team regularly evaluates our management of sustainability issues and other key business issues as part of its role in determining our strategy. We make adjustments to management approaches as needed based on these evaluations.</p> <p>We follow a comprehensive approach that addresses each phase of production, from farms to processing facilities. Our food safety management system applies to facility, equipment and process design; operating and sanitation procedures; employee training; and auditing of our facilities. We work to anticipate points in the production process where challenges might exist and then develop programs to solve potential problems.</p> <p><b>Training:</b> We document all trainings at each facility and test employees to assess how well each individual has absorbed the training and to determine the training program’s effectiveness. Employees who fail their tests may be reassigned to less critical positions.</p> <p><a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Sustainability Governance, p. 18</a>   <a href="#">Food Quality and Safety, p. 52</a>   <a href="#">Health and Safety Policy</a>   <a href="#">Sodium Policy</a></p>	
416-1	Assessment of the health and safety impacts of product and service categories	Fully	<p><b>Testing Product Quality:</b> Our plant management teams regularly review samples of the many products we produce at each of our facilities. Before a product is sent to a customer for the first time, a detailed review — called a First Production Report — is conducted to ensure that packaging, labeling, product appearance and flavor are exactly what have been specified. These procedures are in addition to the continuous product monitoring conducted by our operations and quality assurance personnel. We provide food safety and pork handling tips on Smithfield.com to educate consumers on proper food handling, storage and preparation.</p> <p><a href="#">Food Quality and Safety, p. 52</a></p>	
416-2	Incidents of noncompliance concerning the health and safety impacts of products and services	Fully	<p><a href="#">Food Quality and Safety, p. 52</a></p>	
416-FP4	Nature, scope and effectiveness of any programs and practices (in-kind contributions, volunteer initiatives, knowledge transfer, partnerships and product development) that promote healthy lifestyles; the prevention of chronic disease; access to healthy, nutritious and affordable food; and improved welfare for communities in need	Fully	<p><a href="#">Delivering Health and Nutritious Food, p. 60</a>   <a href="#">Fighting Hunger Across America, p. 70</a>   <a href="#">Employee Health and Wellness, p. 93</a></p>	

# Social Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure	SDG
416-FP5	Percentage of production volume manufactured in sites certified by an independent third party according to internationally recognized food safety management system standards	Fully	<p>One hundred percent of our applicable facilities in the United States, Poland and Romania — 52 in total — are certified to GFSI standards through audits conducted by Safe Quality Food (SQF), BRC Global Standard, International Food Standards (ISF) and ISO 22000. Most of our customers rely on the GFSI auditing process, although some of our larger customers send their own food safety officials to perform audits at our facilities, ensuring an additional degree of transparency that we welcome and from which we also benefit.</p> <p>One hundred percent of our facilities in Europe maintain all applicable certifications to international and federal food safety standards (e.g., ISO 22000, British Retail Consortium and International Featured Standards).</p>	
416-FP6	Percentage of total sales volume of consumer products, by product category, that are lowered in saturated fat, trans fats, sodium and added sugars	Fully	<a href="#">Ingredient Transparency, p. 63</a>   <a href="#">Sodium Policy</a>	
416-FP7	Percentage of total sales volume of consumer products, by product category sold, that contain increased fiber, vitamins, minerals, phytochemicals or functional food additives	Fully	Smithfield does not fortify our meat products with fiber, vitamins, minerals, phytochemicals or functional food additives.	
<b>417: Marketing and Labeling</b>				
103	Management approach	Fully	<a href="#">Identifying What Matters Most, p. 13</a>   <a href="#">Sustainability Governance, p. 18</a>   <a href="#">Meeting Evolving Consumer Appetites, p. 61</a>	--
417-1	Requirements for product and service information and labeling	Fully	<p>Smithfield makes every effort to ensure that our consumers receive the most current information about the ingredients and nutritional value of our products. Our labeling and any product related claims are clear and accurate, in accordance with the labeling requirements unique to each country in which we operate. Smithfield did not have any penalties or fines associated with product labeling regulations during the last reporting period.</p> <p>We are working on ways to improve our product labeling and our ingredient listings in an effort to help consumers better understand exactly what goes into our foods.</p> <p><a href="#">Ingredient Glossary</a></p>	
417-2	Incidents of noncompliance concerning product and service information and labeling	Fully	In 2019, there were no incidents of noncompliance.	
417-3	Incidents of non-compliance concerning marketing communications	Fully	We did not have any such penalties or fines during this reporting period.	

# Social Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure	SDG
417-FP8	Policies and practices on communication to consumers about ingredients and nutritional information beyond legal requirements	Fully	We follow all regulatory labeling guidelines. In addition, we communicate information about ingredients and nutrition on our corporate and core brand websites. <a href="#">Food Quality and Safety, p. 52</a>	
<b>418: Socioeconomic Compliance</b>				
103	Management approach	Fully	<a href="#">Tracking our Performance, p. 10</a>   <a href="#">Sustainability Governance, p. 18</a>   <a href="#">Raising Healthy Animals, p. 22</a>   <a href="#">Food Quality and Safety, p. 52</a>   <a href="#">Our Positions and Programs</a>	--
419-1	Non-compliance with laws and regulations in the social and economic area	Fully	<a href="#">Tracking our Performance, p. 10</a>   <a href="#">Sustainability Governance, p. 18</a>   <a href="#">Raising Healthy Animals, p. 22</a>   <a href="#">Food Quality and Safety, p. 52</a>   <a href="#">Our Positions and Programs</a>	
<b>Food Processing Sector Supplements: Breeding and Genetics</b>				
FP9	Percentage and total of animals raised and/or processed, by species and breed type	Fully	Our operations raised more than 21.6 million hogs in 2019 in the United States and Europe. We have genetically selected hybrids to meet various customer demands and expectations. Our genetic combinations are typically a crossbred comprised of large White x Landrace (dams) and Durocs (sires). Our operations processed over 40 million hogs in 2019 in the United States and Europe. Our Polish operations processed nearly 77.9 million chickens, 3.1 million turkeys and 2.64 million geese in 2019. Only a small portion of our poultry supply — less than 1% — is raised by our company. In Romania, hogs are the only animals that our operations raise and harvest. <a href="#">Animal Care, p. 19</a>   <a href="#">Animal Care Policy</a>   <a href="#">Our Positions and Programs</a>	
<b>Food Processing Sector Supplements: Animal Husbandry</b>				
FP10	Policies and practices, by species and breed type, related to physical alterations and the use of anesthetic	Fully	Our operations follow procedures, including tail docking and castration, that are consistent with our Animal Care Policy. We do not clip teeth of any piglets. Tail docking is important for pig welfare to prevent tail biting behavior (and any resulting infections) later in the animals' lives. The docking procedures occur when piglets are between 3 and 5 days old. For identification and traceability purposes, our operations tag the ears of all (and notch the ears of a small percentage) of breeding stock. We do not use anesthesia, which is consistent with standards that are approved by the American Association of Swine Veterinarians (AASV) and the American Veterinary Medical Association (AVMA). We are active members of the Pain Mitigation Task Force, an industrywide effort that is chaired by a member of American Association of Swine Veterinarians (AASV) and includes experts in human and swine medicine from around the world. The group is tasked to develop scientific methodologies to assess pain associated with routine procedures, such as castration for very young male pigs. Currently various strategies of assessing pain are being tested in universities across the United States. Once these methods are verified, we will undertake a larger scale trial and report the results back to the task force.	

# Social Disclosures

Disclosure Number	Disclosure Title	Status	2019 Disclosure	SDG
			In Europe, tail docking and reduction of corner teeth in pigs is performed only where necessary and only by veterinarian or trained personnel. Poultry operations do not use beak clipping procedures. These practices are addressed by European rules specific to species type and reviewed by Polish and Romanian veterinarian authorities. <a href="#">Animal Care, p. 19</a>   <a href="#">Animal Care Policy</a>   <a href="#">Our Positions and Programs</a>	
FP11	Percentage and total of animals raised and/or processed, by species and breed type, per housing type	Fully	100% of the pigs raised and processed globally, regardless of breed type, live indoors in climate-controlled environments, according to generally accepted industry practices. All pregnant sows on company-owned farms globally, including those in Poland, Romania and our joint ventures in Mexico, are housed in groups. Our poultry-growing farms use cage-free housing. <a href="#">Animal Care, p. 19</a>   <a href="#">Animal Care Policy</a>   <a href="#">Our Positions and Programs</a>	
FP12	Policies and practices on antibiotic, anti-inflammatory, hormone, and/or growth promotion treatments, by species and breed type	Fully	Our policies and practices on these issues apply to all animals raised in the United States and Europe, regardless of species or breed type. Our operations use a limited quantity of anti-inflammatories, including aspirin, for sick and injured animals. The European Union (EU) bans the feeding of all antibiotics and related drugs to livestock for growth promotion purposes. <a href="#">Animal Care, p. 19</a>   <a href="#">Animal Care Policy</a>   <a href="#">Antibiotics Use Policy</a>   <a href="#">Our Positions and Programs</a>	
<b>Food Processing Sector Supplements: Transportation, Handling and Slaughter</b>				
FP13	Total number of incidents of non-compliance with laws and regulations, and adherence with voluntary standards related to transportation, handling, and slaughter practices for live terrestrial and aquatic animals	Fully	The U.S. Department of Agriculture Food Safety and Inspection Service (USDA FSIS) has established several different layers of regulatory notifications relative to animal handling and related issues at federally inspected meat facilities. In 2019, we were issued one Notice of Intended Enforcement (NOIE) and zero Notices of Suspension (NOS). This issue, which did not include fines, was resolved. Our operations in Europe are routinely audited by veterinary authorities. Overall European operations did not receive any penalties for animal welfare noncompliance in this reporting period. <a href="#">Animal Care, p. 19</a>   <a href="#">Animal Care Policy</a>   <a href="#">Our Positions and Programs</a>	