



SUPPORTING THE ANIMAL AGRICULTURE INDUSTRY IN MICHIGAN

\$5.12 BILLION

Economic impact of the animal agriculture industry in Michigan

805,000 JOBS

Related to the animal agriculture industry in Michigan

PRIORITY

A R E A S

- MSU Extension assists farmers to minimize industry disruption issues caused by the COVID-19 pandemic.
- MSU Extension provides consumers with information to help them make informed food purchasing decisions.
- MSU Extension's Animal Agriculture Team prepares the livestock industry in Michigan for future catastrophic events.

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IMPACTS

As the world responded to the COVID-19 pandemic, Michigan State University (MSU) Extension's Animal Agriculture Team became laser focused on assisting farmers with managing risk to their operation flow and addressing industry disruption issues while protecting the economic stability of animal agriculture operations across Michigan.

After taking part in the *Managing the Current Situation: Michigan's Pork Industry* webinar:

 **100%**

of attendees indicated that they would be able to make better decisions regarding how to manage mass depopulation and mortality situations.

 **100%**

of attendees concluded that they are likely to use the information presented to better position their farm to respond to future catastrophic events (such as industry disruption, foreign animal disease outbreak) or further their secure pork supply planning.

 **100%**

of attendees concluded that after the webinar, they knew where to find more resources regarding industry disruption, euthanasia options and the management of mass mortality.

“For many months during the pandemic, the Michigan Department of Agriculture and Rural Development (MDARD), industry partners and MSU Extension planned solutions for various scenarios where Michigan farmers could not send swine for processing when they reached market weights. The collaborative real-time efforts to address potential depopulation demonstrated the wealth of expertise, empathy and resourcefulness of our partners. While we have averted the need for putting these plans into action, the lessons learned will help us when preparing for a foreign animal disease. The ideas generated through this partnership has created a momentum that will continue to positively impact the industry.”

— Nora Wineland, MDARD state veterinarian



MSU EXTENSION ASSISTS PORK INDUSTRY TO NAVIGATE INDUSTRY DISRUPTION

During the spring months of 2020, the animal agriculture industry, specifically the pork, small ruminant and milk sectors of the industry, found itself in an unprecedented situation. The processing plants that service the pork and small ruminant industry were experiencing processing capacity delays and shutdowns that were a direct result of COVID-19 outbreaks in employees. Milk processing plants had decreased demand due to the closure of restaurants and schools. At one point in time, the slaughter capacity of the industry was down to nearly 60% of normal capacity, which sent ripples through the industry, from the processing plants to the farms that supply the animals. In the Midwest, several plants were subject to this situation and Michigan's pork, lamb and goat producers were not immune to the effects.



Pork processing plants experienced critical closures and delays because of COVID-19 infections in employees.

As the situation started to unravel across the nation, Michigan's pork industry saw cause for concern. The pork industry is structured such that a vast majority of the animals are raised indoors and on a coordinated market schedule, leaving little room for error. When faced with disruption issues, farmers not only had to consider the financial impacts of delayed marketing of their hogs but also the welfare of these animals due to the limited holding capacity in processing facilities. Knowing that this situation needed to be addressed on multiple levels and would involve various aspects of the industry, MSU Extension partnered with the Michigan Department of Agriculture

and Rural Development (MDARD) and the Michigan Pork Producers Association (MPPA) to put together a disruption taskforce charged with reviewing the situation as things unfolded and identifying ways to resolve factors brought on by disruption.

MSU Extension helped minimize the effects of market disruption by providing pork producers with resources to manage stress, mitigate the environmental impacts from increased mortality and maintain the economic stability of farming operations while providing solutions for delayed marketing situations. Knowing that an impending result of industry disruption could be the mass euthanasia of pigs for which shackle space is not available as was seen in other Midwestern states, MSU Extension led the process to create a waiver agreement to the Bodies of Dead Animals Act between MDARD and the Michigan Department of Environment, Great Lakes, and Energy (EGLE) that would allow for composting large amounts of mortality without an established concrete liner while still following environmentally sound practices. This agreement, once signed, will give farmers a workable mortality management option for mass carcass disposal during a catastrophic situation, which also minimizes environmental impacts and can quickly be deployed.

Along the same lines, the small ruminant industry also had to adjust how their operations functioned, with delays in processing and a significant decrease in the demand for milk affecting marketing strategies for many farmers. In response to the disruption across the industry, the MSU Extension Animal Agriculture Small Ruminant Team developed a virtual educational opportunity for producers to assist them with creating a new marketing plan for their animals, working to keep their farming operations viable during this tough time.

Michigan's fragile goat milk market was also affected by the pandemic. One of the major processors of goat milk was forced to shut down the bottling line during the pandemic. To assist farmers through this period when their income was severely depressed, MSU Extension educators made goat dairies aware of the availability of funding through the Coronavirus Food Assistance Program (CFAP2) for producers of agricultural commodities marketed in 2020 who faced market disruptions due to COVID-19. Extension educators developed educational information on how to apply for these relief funds. This effort resulted in an average of \$8,125 awarded to farmers whose operation includes this nontraditional U.S. Department of Agriculture (USDA) commodity.



Through the efforts of the MSU Extension Animal Agriculture Team and strong partnerships with the MDARD and MPPA, the pork and small ruminant industry was able to navigate the uncertainty of industry disruption with minimal loss. Farmers also were able to access additional funding opportunities that would help them navigate the period of depressed income because of industry disruption. The pork industry's experience will also better prepare all Michigan livestock and poultry producers for catastrophic events that may happen in the future and further the secure food supply plans being developed for the state.

**OVER
26,000**

page views on information regarding purchasing decisions for meat products

**2.5
MILLION**

market hogs produced in Michigan

“The first few months of the COVID pandemic were a very scary, stressful time for the pork industry. As Michigan took steps to prepare for a worst-case scenario, I was amazed at the collaborative efforts that seamlessly took place between industry, government and MSU Extension. All partners spent countless hours to ease the burden and stress on pork producers. The lessons that we learned through this experience will be extremely valuable in the future.”

— Mary Kelpinski, chief executive officer, Michigan Pork Producers Association

MSU EXTENSION PROVIDES RESOURCES TO CLEAR UP CONSUMER FOOD-PURCHASING CONFUSION

The 2020 COVID-19 pandemic resulted in numerous executive orders that required people to stay home and eliminated in-restaurant dining, changing the behaviors of consumers across the United States. With more people



Covid-19 influenced consumer food purchasing decisions as more people shared meals at home.

purchasing food products and preparing meals in their homes, consumers needed help to better understand the meaning of labels on food products they purchase. The MSU Extension Consumer Education Team developed food label claim infographics to help consumers make informed choices when making food purchasing decisions.

Food labels have a myriad of logos, claims and production information, which can confuse the consumer. For example, meat products can be labeled “free range,” “organic,” “natural,” “certified humane” and “no antibiotics added.” Consumers may not know what these terms mean, which may result in their purchasing the wrong product. Label claims can be government defined and approved, third-party certified, or manufacturer or producer made and verified through documentation. Two agencies, the USDA and the Food and Drug Administration, oversee government-approved and -regulated claims to ensure that the claims are truthful and not misleading. Being able to decipher information on food labels enables making sound purchasing decisions.

In 2020, five infographics were created and made available for staff and clientele. To date, the series includes:

- Food Label Claims
- Antibiotic Label Claims
- Hormone Label Claims
- Natural and Organic Label Claims
- GMO Label Claims

All of the infographics are colorful, educational, reproduceable and sharable. The team is planning to continue this effort in 2021. Future infographics under development are Label Claim Basics, Sweetener Claims, Best By/Use By Date Claims and Whole Grain as well as fact sheets to accompany all of the infographics.



In addition to creating the infographics, the team worked to develop or update resources regarding purchasing decisions for meat products. This effort stemmed from the fact that consumers were spending more time at home cooking and they were also evaluating direct market options for purchasing their meat products. This suite of articles met the need for increased education on purchasing decisions intensified during the COVID-19 pandemic. You can view the resources at <https://bit.ly/2SpVy2W>

MSU EXTENSION HELPS INFLUENCE MARKETING DECISIONS FOR YOUTH INVOLVED IN MARKET LIVESTOCK PROJECTS

Michigan’s animal agriculture industry experienced disruption as a direct result of the COVID-19 pandemic in 2020. These disruption events were not limited to commercial agriculture as youth raising livestock also struggled with disruption issues. In many cases, youth raise animals with the final goal of exhibition at the county fair, which provides marketing opportunities. As a result of numerous county fairs being canceled in summer 2020, youth with livestock, poultry and rabbit projects were left scrambling to develop a marketing plan for the animals in their care.

A team that represented a collaboration of MSU Extension agriculture and agriculture business personnel and MSU Extension children and youth personnel worked to develop marketing resources for youth with livestock projects. This effort assisted youth with creating alternative marketing plans. Direct marketing of meat and poultry requires that certain regulations be followed, depending on the method of marketing used and species involved such as livestock vs. poultry and rabbits. The team established resources specific to each species and packaged the options together in four fact sheets. This helped youth to understand how to properly price their product and obtain methods that they could employ when looking to market their animals.

Feedback from many 4-H program coordinators and volunteers showed that the resources were educational and helpful while also expanding the knowledge of the youth involved in livestock projects and the future of Michigan’s animal agriculture industry.



Youth involved in livestock projects found marketing alternatives because of resources developed by MSU Extension that addressed COVID-19 pandemic industry disruption.

DAIRY FARMERS USED MSU EXTENSION RESOURCES TO HELP NAVIGATE DELAYS AT THE PROCESSING PLANT

In spring 2020, the COVID-19 pandemic resulted in temporary milk processing plant disruptions, school closures and decreased ability for producers to ship milk off their farm for further processing. In some cases, this led to the need for farms to manage their excess raw milk. With that in mind, many dairy producers were asking what options existed regarding raw milk management from both an agronomic and environmental standpoint.

The excess raw milk was in part caused by workers in processing and bottling plants getting sick. Additionally, demand for milk use shifted from fresh milk to other packaging and cheese. K-12 schools no longer needed the cartons of milk typically used in school lunches with the shift from in-person to virtual learning.

Experts across three MSU departments in collaboration with state agencies, MDARD and EGLE wrote a fact



sheet that gave producers several options for storing and disposing of excess milk. Each farmer could fit the solution to their own operation based on scientific recommendations and state regulations. The fact sheet also pointed out environmental concerns and best management practices with the environment in mind. Milk has five times more biological oxygen demand than manure, a big concern for water quality and fisheries.



Black and white Holstein cows eating rations (chopped feed and forage mixed) in a free-stall dairy barn. Photo credit: Sarah Fronczak.

MSU EXTENSION PIVOTS TRADITIONAL HACCP CERTIFICATION TRAINING TO MEET TRAINING REQUIREMENTS

The Hazard Analysis Critical Control Point (HACCP) system is an approach used by the meat industry to address food safety hazards that could directly affect consumer health. HACCP focuses on identification and assessment of these hazards and the implementation of control measures to prevent, reduce or eliminate a hazard. Processing operations follow state and federal regulations that specifically require HACCP plans for their processing facilities. MSU Extension provides businesses with the tools to develop and implement a successful HACCP plan. This includes having a leader and team that fully understands and is trained in the seven principles of HACCP, which in turn meets state and federal regulations. Read more about the HACCP principles at https://www.canr.msu.edu/news/acronyms_related_to_food_safety.

MSU Extension offered the HACCP training in an in-person format. However, with the executive orders limiting in-person interactions and out of concern for the health and safety of their clientele, MSU Extension pivoted to a virtual HACCP training.

The trainings are accredited through the International HACCP Alliance, and individuals who complete the training receive a certificate. This training was developed by a team of specialists from MSU who also teach the hands-on course.



Pivoting traditional in-person programming to online platforms allowed producers to receive HACCP certification required by federal regulation.

After taking the HACCP training:

96%

of participants had an increase in knowledge related to the seven principles of HACCP.

96%

of participants rated the usefulness of the team exercise portions of the course as useful.

75%

of participants intended to do something or change something as a result of this course.