

## MSU EXTENSION PROVIDES INFORMATION AND GUIDANCE TO MICHIGAN'S AGRICULTURE INDUSTRY DURING HIGHLY PATHOGENIC AVIAN INFLUENZA DISEASE OUTBREAK

**\$104.7 BILLION**

annual impact of food and agriculture on Michigan's economy

**900**

dairy farms in Michigan (MDARD, 2023)

**\$2.9 BILLION**

economic impact of the turkey industry (MDARD, 2023)

## PRIORITY

### A R E A S

Michigan State University (MSU) Extension's readiness and rapid response to disease outbreaks safeguarded Michigan's livestock industry by equipping farmers with vital biosecurity knowledge and resources. This collaborative effort not only mitigated the immediate threat but also strengthened the state's agricultural resilience and preparedness for future challenges. MSU Extension's collaborative response to the highly pathogenic avian influenza (HPAI) outbreak helped safeguard Michigan's agricultural and community events while minimizing disease spread. Its work protected animal health and ensured that youth in 4-H programs had the opportunity to engage in valuable learning experiences despite many challenges.

## MSU EXTENSION'S SWIFT RESPONSE TO HIGHLY PATHOGENIC AVIAN INFLUENZA OUTBREAK

Livestock health management is a critical yet challenging aspect of farming. When HPAI was confirmed in cattle for the first time in Michigan in 2024, the agricultural community faced a never-before-seen threat. Previously affecting poultry, HPAI's emergence in dairy cattle highlighted the need for rapid dissemination of accurate information and actionable biosecurity guidance. Farmers required clear, science-based resources to protect their herds and flocks from this unexpected outbreak.

**“Working with MSU Extension on the highly pathogenic avian influenza response was timely and effective in navigating the challenges of the 2024 exhibition season for fairs. We worked together with key stakeholders in communications and implementation plans.”**

*Executive Director, Michigan Association of Fairs and Exhibitions*

MSU Extension acted quickly, forming a multidisciplinary HPAI response team. The team included educators, specialists and communicators from multiple institutes with expertise in poultry, cattle, biosecurity and disease management. Working closely with the Michigan Department of Agriculture and Rural Development (MDARD), veterinarians and MSU's Veterinary Diagnostic Laboratory (VDL), the team created and shared critical resources and messaging.

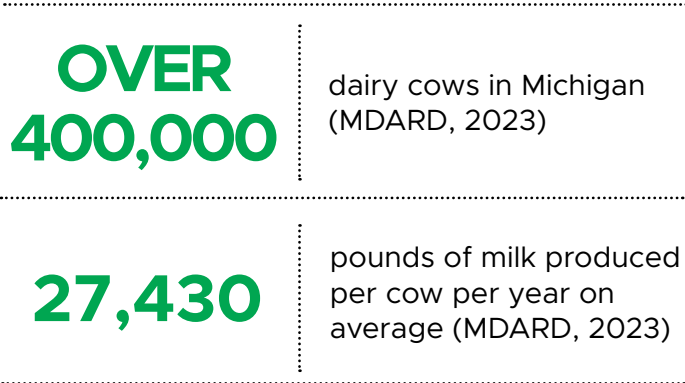
Key actions included:

- **Resource development:** Producing timely educational materials addressing biosecurity measures, signs of illness and outbreak response strategies.
- **Broad communication:** Sharing information through articles, newsletters, social media and direct client interactions.
- **On-farm training:** Conducting educational sessions, including multilingual workshops, tailored to diverse farm needs.
- **Partnerships:** Collaborating with MDARD to craft actionable, science-based recommendations for statewide distribution.

The HPAI response team provided critical support to Michigan farmers and industry partners, achieving the following:

- Disseminated enhanced biosecurity guidelines widely across Michigan's agricultural community.
- Established MSU Extension as a trusted resource for real-time outbreak information and biosecurity training.
- Supported MDARD's outreach efforts, enabling effective communication with farmers.
- Strengthened partnerships with key stakeholders, ensuring a coordinated response to the outbreak.

MSU Extension's role as the "boots on the ground" allowed for the creation of educational materials that were both practical and accessible, empowering farmers to implement biosecurity measures effectively.





# SAFEGUARDING MICHIGAN AGRICULTURE AND 4-H LEARNING AMID HPAI OUTBREAK



HPAI is a serious viral disease that affects wild and domestic birds, resulting in devastating losses for poultry producers. In 2024, HPAI was also detected in various mammals, most prominently, dairy cattle. This outbreak of HPAI caused significant disruptions to Michigan's poultry and dairy industries in 2024, prompting MDARD to issue an executive order to prevent further spread. New biosecurity measures and other restrictions from this executive order had a significant impact on Michigan fairs, exhibitions and the 4-H youth who participate in them. Among the implications were testing and documentation requirements for dairy cattle, event biosecurity signage mandates, and restricted poultry and dairy exhibitions.

MSU Extension partnered with MDARD, the MSU VDL and the Michigan Association of Fairs and Exhibitions to support 4-H youth, fairs and exhibitions in implementing the executive order.

The coordinated efforts facilitated effective implementation of biosecurity measures across

86

county fairs and numerous exhibitions (MAFE, 2016)

OVER  
900

nasal swab samples submitted to the MSU VDL from fairs and exhibitions (MDARD, 2025)

Michigan. MSU Extension provided critical guidance to county fairs and youth involved in 4-H animal science projects, providing educational materials, biosecurity resources and alternative activities for 4-H youth impacted by exhibition restrictions. These alternative educational opportunities, ranging from supplemental educational contests to showmanship with life-like models or virtual exhibitions, enabled youth to continue showcasing their work if their poultry or dairy exhibition was canceled.

MSU Extension also provided comprehensive guidance to fairs and exhibitions as they evaluated their dairy and poultry exhibitions and worked to meet specific stipulations in the 2024 executive orders. Extension educators and specialists provided information, visual aids, training, resources and advice for the county fair community. When numerous barriers to completing required HPAI surveillance testing were identified, MSU Extension worked quickly to provide sampling modifications. These modifications included developing a self-sampler collection mailer that resulted in over 900 samples sent to the MSU VDL.

As a result of the combined effort of all partner organizations, fairs, exhibitions and 4-H youth were able to meet executive order requirements, protect both animal and public health, and maintain engagement through creative solutions.

## REFERENCES

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