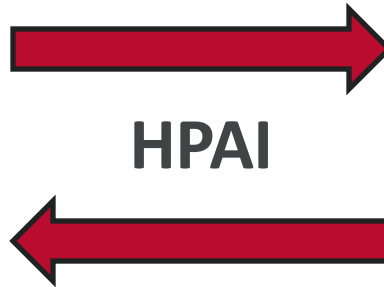


Auglaize County ANR

News from OSU Extension

April 22nd, 2024



Everyday Biosecurity Recommendations for Dairy and Beef Cattle Farm Personnel

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Editor Jacob Winters

Having a biosecurity plan with clear steps and protocols is crucial to protect your animals and farm personnel while also preventing the spread of disease to others or through outside visitors. With the recent outbreaks of Highly Pathogenic Avian Influenza (HPAI) in dairy cows, livestock producers should heighten their biosecurity practices on the farm. According to the latest announcements by [American Veterinary Medical Association and American Association of Bovine Practitioners \(AABP\)](#), the disease syndrome in cattle does **not** cause high morbidity and mortality as it does in birds. The AABP announced April 7, 2024, that it will call this emerging disease **Bovine Influenza A Virus (BIAV)** to better distinguish the disease syndrome in cattle from the pathogenesis observed in birds. The following recommendations are very important to protect farm workers on a day-to-day basis and when handling sick or dead animals.

- 1. Best personal hygiene practices:** Thoroughly and frequently wash your hands with soap and hot water.
 - a. Avoid touching your eye/face/mouth and food with dirty hands to prevent the spread of virus.
 - b. Have a dedicated and clean eating area and food storage (e.g., refrigerator).
 - c. Do not eat around animals and/or while working in the barn.
 - d. Do not use bare hands to pick up dead animals. Wear disposable waterproof gloves to pick up the dead birds, place them inside a disposable plastic bag, seal the bag, and dispose in the trash where it cannot be accessed by children or animals.
- 2. Wear disposable gloves.** Throw away used disposable gloves after each use.
- 3. Wear protective safety glass or face shield.** Sanitize and disinfect them daily.
- 4. Wear clean clothing** and footwear dedicated for the farm:
 - a. All footwear used on the farm must be cleaned and disinfected before and after use.
 - b. Leave the work clothing and boots at the farm and change into clean clothing and footwear before returning home.
 - c. Clothing should be sanitized frequently by washing it with soap and hot water.

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5. Avoid drinking unpasteurized “raw milk”.
 - a. According to the Food and Drug Administration and Centers for Disease and Prevention, the milk supply and dairy products **are safe** due to both federal animal health requirements and pasteurization. Therefore, the public health risk associated with HPAI remains low.
6. Monitor and limit entry to the farm by outside visitors and workers:
 - a. Implement and maintain a visitor logbook for all outside visitors (e.g., name, contact information).
7. Monitor **personnel for potential signs of respiratory symptoms** or influenza-like illness:
 - a. Fever (body temperature of 100 degrees Fahrenheit, 37.5 Celsius, or greater)
 - b. Eye redness, tearing, or irritation
 - c. Runny or stuffy nose
 - d. Cough
 - e. Sore throat
 - f. Difficult breathing or shortness of breath
 - g. Muscle or body aches
 - h. Diarrhea
 - i. Personnel with suspected signs should contact their health care provider immediately
8. Newly purchased animals should undergo testing prior to arrival at the farm followed by a quarantine to promptly identify and prevent potential disease transmission. Do not move/transport sick or exposed animals.

What are the clinical signs in cattle?

1. Affected animals are showing low morbidity, affecting about 10% of cows.
2. Reduced feed and water intake, leading to reduced milk yield. Flag cows on the list to be screened when seeing a milk yield reduction or low activity is recorded by your herd manager or monitoring systems.
3. Decreased rumen motility with abnormal manure (tacky or loose).
4. Affected cows are depressed with reduced activity.
5. Abnormal milk appearance characterized by **thicker colostrum-like consistency** with yellowish in color leading to changes in milk conductivity.

What should I do when sick cows are suspected?

1. Notify your herd veterinarian immediately so they can determine if sampling and testing are required.
2. Implement an isolation plan to reduce direct points of contact between healthy and affected animals. Milk sick animals last, and clean and sanitize the milking machine/parlor afterwards. Implement a milking protocol similar to the protocols used for contagious mastitis.
3. Reduce farm personnel exposure to animals suspected or confirmed with HPAI (including dead animals). Please follow the biosecurity protocol listed above.
4. Pasteurize colostrum and milk prior to feeding calves.

Additional information about farm biosecurity plans, practices, and resources can be found:

1. **[Secure Milk Supply](#)** and **[Biosecurity Resources for Producers](#)**
2. **[Beef Quality Assurance](#)**
3. **[FARM Biosecurity](#)**
4. **[Center for Food Security and Public Health](#)**
5. **[Cleaning and Disinfection Tips](#)**
6. **[Characteristics of Select Disinfectant Classes](#)**
7. **[Information for Producers and Veterinarians](#)**

For the latest update on HPAI cases detected in dairy cattle by State, please visit:

1. **[USDA Animal and Plant Health Inspection Services](#)**. (Confirmed cases Nation wide updated weekdays by 4 pm ET.)
2. **[Ohio Department of Agriculture](#)**

An ounce of prevention is worth a pound of cure! Livestock producers are strongly encouraged to work closely with their herd veterinarian to prevent the spread of HPAI amongst individuals and across farms. OSU Extension is available to assist with biosecurity plans and practices that are specific for your operations.

Box Tree Moth

Authors Joe Boggs, & Amy Stone

Editor Jacob Winters

The Ohio Department of Agriculture (ODA) is issuing a quarantine for six counties in southwest Ohio to prevent the spread of the box tree moth. Beginning April 11, 2024, Butler, Clermont, Hamilton, Greene, Montgomery, and Warren counties will have regulations in place restricting the movement of boxwood shrubs out of the area. ODA is encouraging landscapers and residents in these counties to check the quarantine boundaries and not transport the plants outside of the quarantined area. Maps of the BTM quarantine in Ohio as well as quarantined areas elsewhere in the U.S. can be viewed by clicking this hotlink: <https://go.osu.edu/btm-quarantinemap>

The Box Tree Moth (BTM) (*Cydalima perspectalis*, family Crambidae) is a non-native pest of boxwoods (*Buxus* spp.). BTM is native to a wide geographical range across eastern and southern Asia. BTM is not considered a significant pest of native boxwoods in its Asian range due to the natural development of predators, parasitoids, and pathogens that target BTM in Asia. BTM was discovered in Germany in 2007 and has spread quickly across the continent ravaging the native European boxwoods. The rapid spread of BTM was mostly likely abetted by several factors. The inability of the native boxwoods to defend against the non-native BTM, a high damaging populations that developed rapidly due to a lack of natural enemies in Europe and finally, the abundance of native European boxwoods in wooded areas between urban sites. This is a common outcomes in new invasive populations but was accelerated in Europe by the wild boxwoods served as a “bridge” between urban centers.

BTM was first confirmed in Ohio by the Ohio Department of Agriculture (ODA) in late June 2023 based on an adult captured in the southwest part of the state in Loveland near the conjunction of Hamilton, Clermont, Warren, and Butler Counties. Adult moths were subsequently trapped in Montgomery and Greene Counties in September 2023. The southwest Ohio infestations are the southernmost BTM populations currently known to occur in North America. The overarching purpose of a plant pest quarantine is to prevent the further spread of the regulated pest through the movement of infested plant material. Thus, boxwoods are not allowed to be moved outside the Ohio BTM quarantine zone. Boxwoods can be moved within the zone. To reduce the business impacts for nursery stock producers located within the BTM-regulated area, the ODA, in partnership with the United States Department of Agriculture (USDA), has developed a Box Tree Moth Compliance Agreement. The agreement requires nursery stock producers to work closely with their ODA Nursery Inspector to implement a multi-step BTM pest management plan developed by the ODA/USDA in conjunction with research scientists.

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Strict adherence to the agreement allows shipments to be made outside of the quarantine zone. Nursery producers can learn more about the agreement by contacting their ODA Nursery Inspector.

Potential BTM Impact

BTM feeding damage is confined to boxwoods and has not been found on any other host in North America. BTM is a potential boxwood killer if infestations are left unchecked. “In introduced areas where box tree moth has 2 generations per year, boxwood stands have declined over 95% in 8 years or less.” - the USDA APHIS, 2022 New Pest Response Guidelines. BTM caterpillars are relatively easy to kill, so their impact can be mitigated if suppressed before they cause significant harm. Like other moths and butterflies, BTM develops from eggs to adults through complete metamorphosis. The caterpillars must shed their skins as they grow. Each time the caterpillars molt, they advance into a new instar stage. According to the literature, BTM caterpillars may develop through 6 to 7 instar stages before adulthood. As the caterpillars become larger, they consume more foliage and produce more damage than the previous stage. The total seasonal damage by a plant-feeding insect depends on the number of generations and the population densities for each generation. Normally, throughout the growing season, overall population densities increase with each generation, causes more damage. Knowing the number of generations is critical for developing and applying effective management programs. BTM produces a “split generation” with eggs hatching in the fall and caterpillars feeding before overwintering in a specialized structure called a hibernaculum (pl. hibernacula). The caterpillars fall into physiological “deep sleep” called diapause. The literature consistently notes that the overwintering caterpillars are in the 3rd or 4th instar stages.

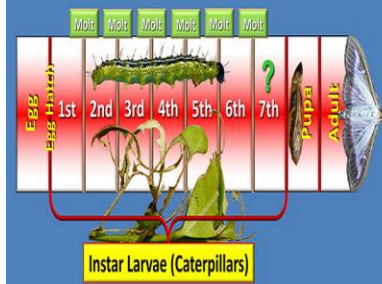
BTM early instar caterpillars have emerged from diapause and are currently resuming their feeding in S.W. Ohio. The adult moths produced from this split generation will lay eggs to initiate the first full generation later this season. BTM may have as many as 5 generations per season depending on the climatic conditions in its native Asian range and in Europe. BTM produces 2 overlapping generations in Toronto, Ontario, and in Niagara County (Buffalo), NY. The number of generations in S.W. Ohio is currently unknown. The number of BTM generations will be investigated during the upcoming season by the ODA using traps baited with a synthetic version of the pheromone used by BTM females to attract the male moths. A significant “spike” in trap catch numbers signals the arrival of a new generation.

Complete defoliation is the “signature” symptom of BTM and it’s easy to spot from a distance. A closer examination will reveal that there are few leaves on the ground, only debris. Report this to your local OSU Extension office. Full article, references, and action steps to and infection can be found @

<https://bygl.osu.edu/index.php/node/2335>

BTM Development: Complete Metamorphosis

(Holometabolous Development)



BTM Development: Complete Metamorphosis

Split Generation: Fall - Spring



BTM Development: Effect of Temperature



Joe Boggs, OSU Extension©

Yellowjacket Grinding Up a BTM Caterpillar



Joe Boggs, OSU Extension©

Mark your Calander!

Local Agriculture and Natural Resources Events & Deadlines

OSU Extension

• Growing Gourmet Mushrooms Indoors Workshop

- Learn how to grow mushrooms indoors and create your own Oyster mushroom Log to take home Fruit in 4-6 weeks.
- SPEAKER: Kayla Wyse, ANR Extension Educator –Williams County
- OSU Extension Greene County 100 Fairground Rd Xenia, Ohio 45385
- DATE: April 22, 2024
- TIME: 2:00 pm – 4:00 pm
- COST: \$15.00/MGVs \$10.00



• Ohio Victory Garden Seed Distribution

- New Knoxville Public Library
- April 22nd 12pm to 5pm
- 304 South Main Street New Knoxville
- White-Waynesfield Public Library
- April 23rd 10 am to 5pm
- 108 East Wapakoneta street Waynesfield
- True Value Hardware Minster
- April 27th 9 am to 3pm
- 4405 State Route 66, Minster



• WOMEN IN AG WEDNESDAY WEBINARS

- 1st WEDNESDAY of each month.
- 10:30 am –11:30 am
- Via Zoom Platform - Register at <https://go.osu.edu/wiawednesdaywebinars2024>



• FAMACHA Certification and Egg Floats & Counts for Small Ruminants

- Friday, May 31st, 2024, from 9:00 A.M. –3:00 P.M.
- Location: Small Ruminant Research Unit 5651 Fredericksburg Rd. Wooster, OH 44691
- Cost: \$40 at the door
- Space is limited to 20 participants & Pre-registration is required



• Bugs the Bugs, it Bugs the Birds!

- May 10th 10 am to 12pm
- Oak Harbor, OH
- Speakers Hardy Kern, with the American Bird Conservancy & Matt Shumar, with the Ohio Bird Conservation Initiative
- Learn more about the impacts of pest management on birds & ways to make your spaces bird-friendly while still reducing threats from pests.
- Registration @ <https://woodlandstewards.osu.edu/resources/webinars>



Farm Service Agency

- Dairy Margin Coverage (DMC) Program
- Continues through April 29, 2024
- If you are a dairy producer, please be sure to contact your County FSA office about this important safety net program, which provides price support to help offset milk and feed price differences.

Other Events

- The Biggest Week in American Birding
 - Webinar all about birds, the foods they eat, and the impacts of pesticides.
 - May 3rd to 12th
 - If you are looking for more information at the Biggest Week in American Birding, check out the website at:
<https://www.biggestweekinamericanbirding.com/>
- CCSI Soil Health Updates on Zoom
 - The second and final intake session will be April 29.
 - Join Zoom Meeting
 - <https://us02web.zoom.us/j/81262099610>
 - Meeting ID: 812 6209 9610
 - Passcode: 045368



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