CFAES COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

Auglaize County ANR

News from OSU Extension November 22, 2023

Ohio's Spotted Lanternfly Quarantine Expanded and More

Author Amy Stone Edited by Jacob Winters

Currently there are 11 Ohio counties that are quarantined as a way to reduce, or hopefully eliminate, the artificial spread of Spotted Lanternfly to other non-infested areas. While there have been single finds of Spotted Lanternfly in several other Ohio Counties, a quarantine is enacted when a reproducing population is discovered. This includes finding multiple life-stages, and often includes egg masses, not just a single find.

Sooner or later, all of the Spotted Lanternfly adults will be killed by cold temperatures, but the egg masses will survive Ohio's winters. As we transition to looking for egg masses, know that they can easily blend into their surroundings.

The female will lay between 30 and 50 eggs. These eggs are arranged in rows and often covered in a creamy-white, putty-like substance that becomes more gray as it dries.

It is important to realize that egg masses can be laid on a variety of surfaces that don't have to be plant related

If you happen to see what you suspect is a Spotted Lanternfly egg mass this winter or early spring, capture a photo and document the location. Suspect reports can be made through the ODA's Plant and Pest Reporter (https://survey123.arcgis.com/share/1b36dd2cf09e4be0a79776a6104ce1dc) or using the Great Lakes Early Detection Network (GLEDN).

For more Information visit https://agri.ohio.gov/divisions/plant-health/invasive-pests/invasive-insects/slf

Considerations for Drying High Moisture Corn

Authors Elizabeth Hawkins, Jason Hartschuh, CCA . Edited by Jacob Winters

Corn harvest progress in Ohio has been behind pace as field drying has been slower than expected. With the recent rainfall and colder temperatures in the forecast, it will become much more difficult to field dry corn creating a need to send high moisture corn to the dryer.

The high moisture corn will spend more time in the dryer which increases chances of browning. Grain exposed to rapid temperature changes during fast drying and cooling is also at risk of stress cracks and broken kernels leading to a lower test weight and increased fines. At many elevators and end users, corn test weight discounts begin for any sample under 53.9 pounds per bushel. Many producers are experiencing stacked discounts for test weight, damage, and heat damage this fall. Most high temperature dryers are run at about 210-230º F. One way to reduce kernel damage in wet grain is to decrease the temperature below 200 F. Unfortunately, lower temperatures are not as efficient at drying. It takes 4,000 BTU to remove a pound of water at 150 F but only 2800 BTU at 200 F. Keeping dryer plenum temperatures as high as possible without damaging grain is ideal. Monitor the grain coming from the dryer for cracks and decrease temperatures until quality is maintained. Cooling grain effectively after drying is also important to quality. When hot grain is cooled rapidly to 30 or 40° F by the dryer, the risk of stress cracks increases. One way to manage grain quality when drying high moisture corn is by making two passes through a continuous flow dryer. The corn does not get as hot each time and cools quicker, but this method increases expense and grain drying logistical challenges. If your bins are large enough, aeration fans can be used to cool grain the rest of the way in bin to help maintain grain quality. By cooling grain in the bin, dryer efficiency can be improved by 15-25%. However, condensation can become an additional concern. As temperatures decrease below 40 F, the chances of condensation forming when hot grain is put into storage bins to cool increases. As the condensation cools during freezing nighttime temperatures, vents may become iced over decreasing efficiency and risking damage to the bin roof. To avoid this, leave all access doors open or closed with an elastic strap that can act as a pressure relief valve. The grain coming out of a high temperature dryer should be at 90-100 F to reduce the condensation potential.

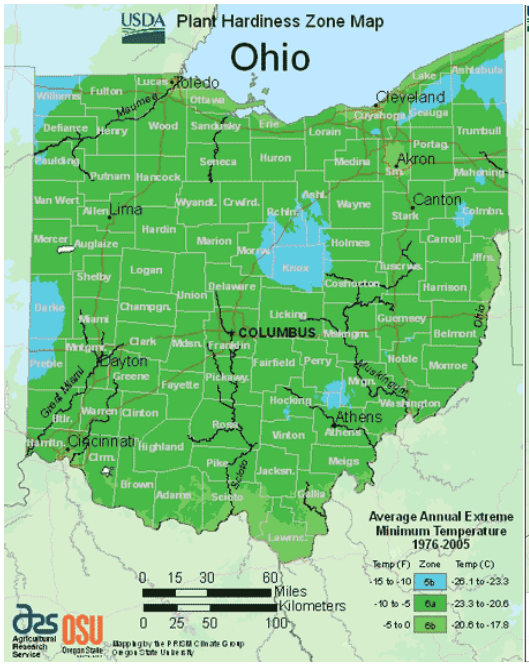
For the producers who use natural air drying, managing high moisture corn will be much more complicated as air temperatures fall below 40 F. Once temperatures fall into the 30 to 40 F range, it will take over two months for this corn to dry in the field. In bin drying should not be attempted if corn is over 20% moisture. Below 20% moisture, the grain can be cooled to 20-30 F using aeration and maintained in the bin until spring temperatures are over 40 F. As temperatures warm in spring, further drying will become necessary to avoid spoilage. Grain storage time is highly dependent on grain moisture and temperature. This factsheet provides a table that can help you determine how long you can safely hold corn based on your conditions: https://extension.sdstate.edu/sites/default/files/2019-09/S-0003-53-Corn.pdf.

This season's harvest is shaping up to be a challenging one. Please keep in mind that poor condition grain can pose a safety hazard at all stages of handling, so take caution this fall and winter as we bring this crop in.

For more information visit: https://www.ag.ndsu.edu/graindrying/documents/high-moisture-corn-drying-and-storage-pdf , https://www.ag.ndsu.edu/news/newsreleases/2009/oct-26-2009/drying-high-moisture-corn-can-be-tricky/

USDA Updates the Plant Hardiness Zone Map in 2023

Authors: Amy Stone and Jan Suszkiw Edited by Jacob Winters



Ohio now has 4 Hardiness zones: 5b; 6a; 6b; and 7a. Higher zone numbers represent more mild winters with less extremes freezing temperature. In the previous Hardiness zone map, on the left, Zone 7 was a climate zone that did not extend into Ohio. In the new revised map most of Lawence and Scioto and much of Gallia county are now in zone 7a with most of the state shifting to more mild minimum temperatures zones. Nearly all of zone 5b has been removed from the state with the exception of Knox County.

The U.S. Department of Agriculture released this new version of its Plant Hardiness Zone Map (PHZM), updating this valuable tool for gardeners and researchers for the first time since 2012. USDA's Plant Hardiness Zone Map is the standard by which gardeners and growers can determine which plants are most likely to thrive at a location. The new map—jointly developed by USDA's Agricultural Research Service (ARS) and Oregon State University's (OSU) PRISM Climate Group—is more accurate and contains greater detail than prior versions.

The 2023 map is based on 30-year averages of the lowest annual winter temperatures at specific locations, is divided into 10-degree Fahrenheit zones and further divided into 5-degree Fahrenheit half-zones. Like the 2012 map, the 2023 web version offers a Geographic Information System (GIS)-based interactive format and is specifically designed to be user-friendly. Notably, the 2023 map delivers to users several new, significant features and advances. The 2023 map incorporates data from 13,412 weather stations compared to the 7,983 that were used for the 2012 map.

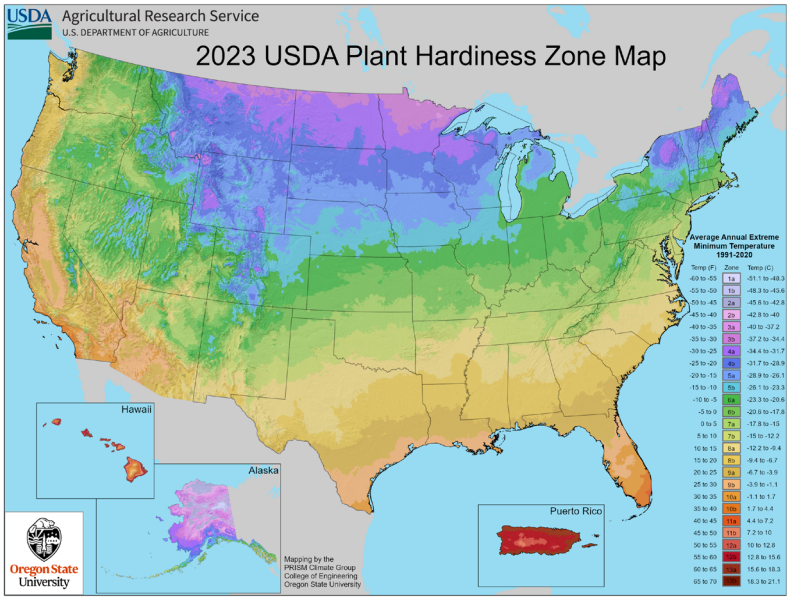
The annual extreme minimum temperature represents the coldest night of the year, which can be highly variable from year to year, depending on local weather patterns. Some changes in zonal boundaries are also the result of using increasingly sophisticated mapping methods and the inclusion of data from more weather stations.

The new maps are available online at https://planthardiness.ars.usda.gov/. In addition to the map updates, the Plant Hardiness Zone Map website was expanded in 2023 to include a "Tips for Growers" section, which provides information about USDA ARS research programs of interest to gardeners and others who grow and breed plants.

For more Information

USDA Press Release

https://bygl.osu.edu/index.php/node/add/article



Harvest Complete? It's Time To Assess SCN Levels In Your Fields!

Author: Horacio Lopez-Nicora Edited by Jacob Winters

Soybean cyst nematode (SCN) poses a significant threat to soybean production, with potential yield reductions occurring without visible symptoms. To effectively manage SCN, it is crucial to know the presence and population levels of this destructive pathogen in your fields. Fall presents an ideal opportunity for sampling soil and testing for SCN, allowing growers to plan ahead and implement effective management strategies.

Why Sample in Fall? Fall is the optimal time for soil sampling for several reasons. Firstly, if you are unsure whether your fields are infested with SCN or not, fall sampling can clarify its presence. Secondly, if you already know about the presence of SCN but want to monitor population levels over time, fall sampling enables accurate tracking of changes. Lastly, if you plan on collecting soil samples for fertility analysis anyway, using a subsample specifically for SCN testing can save time and effort.

The Importance of Knowing Your Numbers. Understanding your specific SCN numbers is crucial in determining appropriate management strategies tailored to your field's needs. By conducting fall soil tests and obtaining accurate population data before planning next year's planting season, growers gain valuable insights into implementing effective practices that mitigate yield losses caused by SCN infestations.

Free Soil Sampling Opportunities! With funding from the Ohio Soybean Council, we are able to offer free testing for up to two soil samples per grower. The samples will be tested for SCN. This initiative aims at assisting farmers in identifying their nematode populations accurately. To submit your samples, please download and complete the Soil Sample Submission Form and mail them to: **OSU *Soybean Pathology and Nematology Lab***

Attn: Horacio Lopez-Nicora, Ph.D.
110 Kottman Hall
2021 Coffey Rd.
Columbus, Ohio 43210

For addition help, samples can be brought to the Auglaize County Extension office where copies of the submission form and our staff are available to assist you.

OHIO SOYBEAN COUNCIL

For the full article, PDF copy of the submission form and more information about how to sample visit

https://agcrops.osu.edu/newsletter/corn-newsletter/2023-39/harvest-complete-its-time-assess-scn-levels-your-fields

Mark you Calander!

Local Agriculture and Natural Resources Events & Deadlines

OSU Extension

- *Soil Health Tour Wrap-Up Event November 30th*
- **Time:** 5:30 PM to 8 PM
- **Location:** Paulding County Extension Building,
  503 Fairground Drive, Paulding OH 45879
- **Speaker**: Dr. Manbir Rakkar
- **Sign-up:** go.osu.edu/SoilHeathTour
- **Tour virtual:** https://storymaps.arcgis.com/stories/8fffb1e41fa7409a836c3a9d5183d9c6

Register by noon on Thursday, November 23rd

****All virtual tours will available until November 29th*

- Planning for the future of your farm Thursday December 7th
- **Time:** 9 AM to 4 PM.
- **Location:** Mercer County OSU Extension, First floor Conference Room
- **Cost:** $50 base registration for 2 attendees and $20 for each addition person in your party.
- **Topic:** "A workshop on succession and estate planning"

- Biosecurity *Measures December 4th*
- *Will count for 1.5 hours of CCA or CLM Credit*
- **Time: 10 AM – 11:30AM**
- **Location:** Will be a webinar series streamed via Zoom.
- **Speakers:** Dr Jacquie Jacob, and Paige Kelly
- **Topic:** " Rodent Control and Animal Mortalities"
- **Sign-up:** go.osu.edu/CLM

- *Indiana Soil Fertility Workshop December 7th*
- **Time: 6 PM – 8 PM**
- **Location:** Will be a webinar series streamed via Zoom.
- **Speakers:** Glen Arnold, Greg Labarge, and Brad Kohlhagen
- **Topics:** "Utilizing Manure In Season", "Determining Nitrogen Rates with PSNT" & "PARP Topic"
- **Sign-up:** go.osu.edu/IndianaSFW

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