

Plant Protection and
Weed Control
1320 Research Park Dr.
Manhattan, KS 66502

Office: 785-564-6698
Fax: 785-564-6779
agriculture.ks.gov/PPWC

*The purpose of our
program is to:*

- *Protect the state's native and cultivated plants from the introduction and outbreak of harmful plant pests, including insects, plant diseases, weeds and other organisms.*
- *Provide inspection and certification services to ensure compliance with statutes and quarantines and to facilitate movement of plants and plant products to other states and countries.*
- *Manage pests of regulatory significance within the state.*
- *Ensure that plants, plant products, and seed offered for sale in Kansas meet the requirements of the Plant Pest and Agricultural Commodity Act, the Kansas Seed Law, the Kansas Noxious Weed Law, and the Commercial Industrial Hemp Act.*

Program news

The horticulture industry has benefitted from the renewed interest in landscaping and gardening the last few years, and experts predict that growth will continue. While this is good news for business, the risks for introduction of invasive plant pests are greatly increased with growing global markets, expanded domestic transport, ease of online trade, and continued lack of recognition of pests.

We need your help in the fight against invasive plant pests now more than ever. Spotted lanternfly is in the limelight and has a high potential for introduction into Kansas with the accidental help of people. The list of concerns continues—box tree moth was introduced into the U.S. last

year, emerald ash borer continues to spread and a new population of Asian longhorned beetle was detected in South Carolina in 2020. For diseases, boxwood blight, ramorum blight and others that pose major threats are being managed in regions where they are known but are still being moved on nursery stock and discovered after the fact.

Please check out our updates about a few of these important plant pests in this newsletter. You can also find more information on these and others on our website. We appreciate your help in protecting the horticulture industry and Kansas' native and cultivated plants.

Legislative updates

Plant Protection and Weed Control (PPWC) is working to update three important sets of laws administered by the program. These are the Plant Pest and Agriculture Commodity Certification Act, K.S.A. 2-2112, *et seq.* (Plant Pest Act), the Sale and Distribution of Seed, K.S.A. 2-1415, *et seq.* (Kansas Seed Law), and the Commercial Industrial Hemp Act, K.S.A. 2-3901, *et seq.* (Hemp Act). The goals are to update existing law to conform with modern practice and ensure that the Kansas Department of Agriculture can adequately carry out the statutory duties assigned to the agency.

In developing amendments to these laws, KDA met and/or corresponded with: Kansas Nursery and Landscape Association, exporting greenhouses and sod farms, Kansas Seed Industry Association, Kansas Crop Improvement Association, Kansas Co-Op Council, Kansas Wheat Association, Kansas Farm Bureau, Kansas Ag Retailers Association, Kansas Corn Growers, Kansas Soybean Association, Kansas Grain Sorghum Commission, Kansas Grazing Land Coalition, The Nature Conservancy, Kansas Livestock Association, Industrial Hemp Advisory Board and individual seed dealers.

Amendments to the Plant Pest Act modernize the existing live plant dealer licensing structure, implement late fees for licensees that fail to renew by the end of the licensing year, raise the license fee cap and increase the inspection rate cap for certification of product shipments.

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Spotted lanternfly report from Colby

Bob Buhler, West Area Specialist, and Taro Eldredge, Entomologist

At the Kansas State Fair in September 2021, a 4-H entomology project containing a spotted lanternfly (SLF, *Lycorma delicatula*) specimen was submitted for display by a youth from Colby. The discovery received widespread press coverage since the closest known population of SLF is in Indiana.

In response to the find, Kansas Department of Agriculture and Kansas Forest Service staff partnered to survey for SLF around the reported collection site and other nearby pathway sites. Surveyors found no evidence of an SLF infestation, but KDA plans to continue raising awareness of SLF within the state to support early detection.

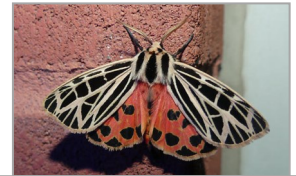
Importance of spotted lanternfly
 SLF is a destructive invasive planthopper first discovered in the U.S. in Pennsylvania in 2014. Native to parts of Asia, SLF has a wide host range with preference for tree-of-heaven (*Ailanthus altissima*), a once-popular ornamental tree that is now also considered invasive in some regions. SLF is also partial to grapes, fruit trees and black walnuts to list a few. Like aphids, SLF uses piercing-sucking mouthparts to feed on sap and diminish plant vigor. Additionally, sugary waste (honeydew) excreted by the insects supports the growth of sooty mold. Established populations of SLF adversely affect viticulture, orchards, nurseries and the logging/

lumber industry. SLF also aggregates on neighborhood trees, and the subsequent buildup of honeydew and sooty mold impacts residential quality of life.

SLF has spread from the initial U.S. infestation naturally and with the assistance of people. Adult SLFs hitch rides in vehicles and lay egg masses on various materials which may be unknowingly transported long distances. You can help prevent accidental spread of SLF by checking vehicles and materials for insects and egg masses when traveling, especially if visiting or passing through states with known SLF populations.

While SLF is distinctive, adults are sometimes confused with tiger and lichen moths (Erebidae: Arctiinae) which sport

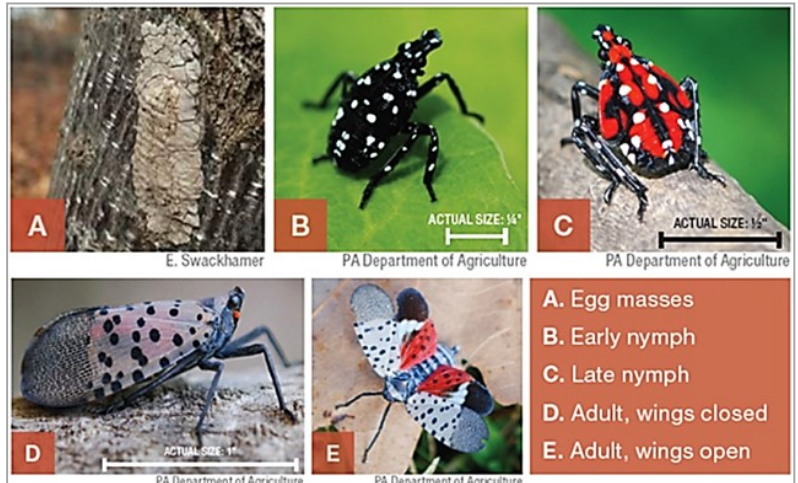
similar colors. However, moths have scaly or powdery wings while SLF have plastic-like, scale-free wings similar to cicadas and grasshoppers.



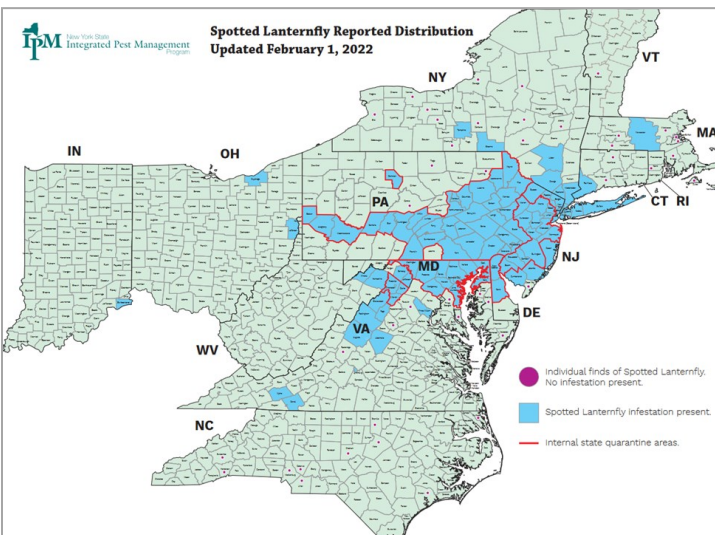
Virgin tiger moth, *Apantesis virgo*, sometimes mistaken for SLF. Source: BugGuide.net, © 2021 Peter Lane

If you suspect SLF in Kansas, please collect a specimen or take photographs and contact your local county Extension agent (<https://www.ksre.k-state.edu/about/statewide-locations.html>) or KDA Plant Protection & Weed Control (see page 6).

Additional information on SLF is in the 2019 Nursery Pest Newsletter available on the KDA website.



SLF lifestages. Source: PennState Extension



Current U.S. distribution. Source: Cornell U.-NY State IPM.

Tobacco etch virus in solanaceous crops

Gaelle Hollandbeck, Plant Pathologist

As spring approaches, tobacco etch virus is a disease for which to watch in solanaceous crops such as pepper, tomato, and coleus. This virus is easily spread by aphids who only need to feed for a few seconds before acquiring the virus and being able to transmit it to new plants. Tobacco etch virus is not seed-transmitted.

Symptoms of the virus include mottling, vein clearing, leaf wrinkling, root necrosis, and stunting. Plants that become infected early in the season will not produce harvestable fruit. Plants that are infected later in the season may produce fruit that is mottled or has a mosaic pattern.

Management of tobacco etch virus includes monitoring plants and discarding any with viral symptoms, monitoring and controlling aphids, selecting resistant varieties, and removing weeds from the production area.

Several common weeds are alternate hosts of tobacco etch virus and may harbor the disease, including thistle, lamb’s quarter, nightshade, and jimson weed.



Symptoms of tobacco etch virus on pepper. Source: Florida Division of Plant Industry, Florida Department of Agriculture and Consumer Services, Bugwood.org

Box tree moth

Jennifer Smith, Plant Protection Supervisor and Kansas City Metro Area Specialist

In spring of 2021, USDA-APHIS confirmed the presence of box tree moth (*Cydalima perspectalis*) in the U.S. and issued a federal order to prevent further spread. The insect is native to Asia and has proven to be detrimental to boxwood production and plantings when introduced to other regions. It was first reported as an invasive introduction in Europe in 2007 and has spread widely there. It was reported in Canada in 2018, and the infested plants shipped into the U.S. last year were traced to an infested Canadian nursery. Plants from the facility were shipped to 25 retail facilities and one distribution center in the U.S.

KDA officials followed up with five Kansas residents who received plants via mail order from affected facilities. Plants were destroyed as a safeguard and replaced by the shipping company from a different source. Box tree moth was not detected in follow-up surveys at any of the Kansas sites.



Box tree moth damage to boxwoods. Source: USDA

Potential is high for additional introductions of this pest. Adult moths are difficult to distinguish from other species and larvae may go unnoticed in initial infestations. Be on the lookout for damage. If suspect insects are found, collect specimens and take pictures. Contact your local county Extension office, KDA regional specialist or the KDA entomologist for pest identification.



Adult box tree moth. Source: USDA



Larvae and webbing. Source: USDA

Pest surveys and results: 2021

PPWC ongoing annual surveys

Brown marmorated stink bug: New detection in Riley County in 2021. Previous populations confirmed in Douglas, Johnson, Leavenworth and Shawnee counties. Continued trapping efforts, especially in highly populated areas.

Emerald ash borer: No new detections in 2020 or 2021. Partnering with the Kansas Forest Service for continued trapping efforts using trap trees in counties bordering known populations and other high-risk areas.

Spongy moth (formerly known as gypsy moth): No interceptions in 2020 or 2021. Continued trapping at live plant dealer facilities and other high-risk locations. USDA-APHIS-PPQ also traps for this moth in Kansas at potential pathway sites on a rotating regional basis.

Japanese beetle: No new detections in 2020 or 2021. Continued trapping in counties bordering known-infested counties and other high-risk locations. Maintaining Category 2 status.

PPWC special survey

***Phytophthora ramorum*:** Survey conducted in 2020-21. Samples of symptomatic plant material taken at wholesale and retail plant dealers. Water bait samples collected from retention ponds and public waterways. *Phytophthora spp.* is endemic and was detected in several locations, but all samples collected in the survey were negative for *P. ramorum*.

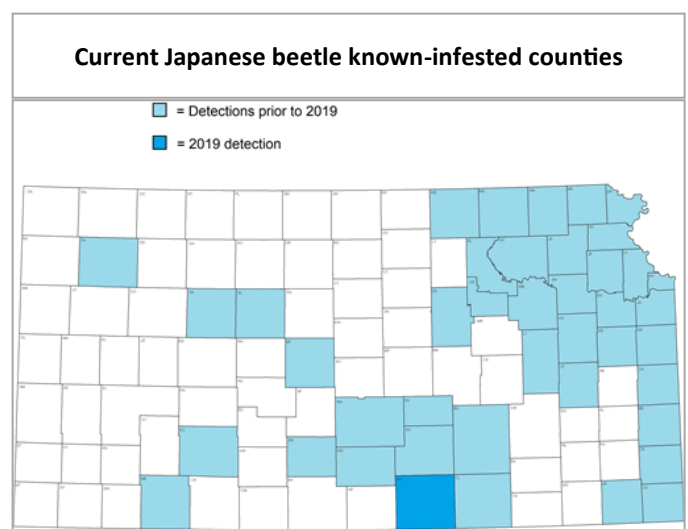
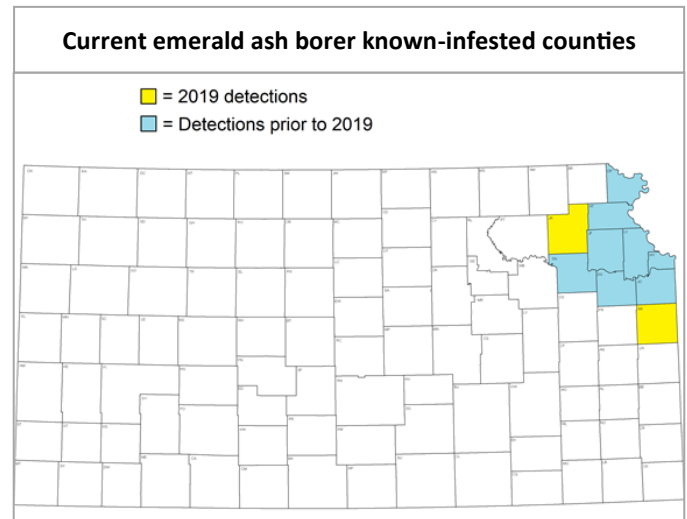
Cooperative Agriculture Pest Survey (CAPS) program

Small Grains Commodity: Two year detection survey to gather data on the status of sunn pest (*Eurygaster integriceps*), small brown planthopper (*Laodelphax striatellus*), Egyptian cottonworm (*Spodoptera littoralis*) and old world bollworm (*Helicoverpa armigera*) in wheat and sorghum in Kansas. All were negative.

Karnal Bunt: Annual detection survey of wheat grain. Part of larger national survey in states where this disease has not previously been detected, to maintain pest-free status for grain exports. The survey operates on a rotating regional basis. In 2021, 109 samples taken from 26 western counties. All samples were negative.

Walnut Twig Beetle: Ongoing detection survey with rotating regional focus. In 2021, staff placed 61 pheromone traps in 46 counties in western Kansas. All samples were negative.

Alfalfa Commodity Survey: This detection survey gathered data to determine the status of Australian grapevine yellows (Candidatus *Phytoplasma australiense* 16SrXII-B), cotton cutworm (*Spodoptera litura*), bud borer (*Crociosema aporema*) and alfalfa cyst nematode (*Heterodera medicaginis*). One field in Finney County was positive for Alfalfa cyst nematode. Other pests in the survey were not found.



New staff member: Ty Schaefer, South Central Area Specialist

Ty Schaefer joined the Plant Protection team in January 2022 as the south central area plant protection specialist. He was born and raised in Greensburg, Kansas, and earned a degree in wildlife, fishery, and conservation biology from Kansas State University. Ty worked for the Department of Wildlife and Parks for the past 7 years, covering portions of southwest and south central Kansas. He spends his free time enjoying the outdoors, camping, hiking, and kayaking with his wife Sarah, daughter Millie, and son Maddox.

Expect to see Ty out and about in the south central area as well as teaming up with staff in other regions this year and in the future. Please join us in welcoming him!

Seeking applicants for state entomologist

KDA is seeking a dedicated public servant to serve as the lead entomologist in the PPWC program. The position is the sole source of regulatory entomology for the state of Kansas and is focused on the protection of the state's cultivated and natural plant resources from insects and other arthropods. The incumbent must have a broad working knowledge of insects and other arthropods that are plant pests, especially insects in the orders Hemiptera, Lepidoptera, and Coleoptera.

The lead entomologist is primarily responsible for development and implementation of management strategies for insects and other arthropods of economic, regulatory, and biosecurity concern; for development of pest risk analyses; data collection; program support; public awareness programs; and preparation of scientific reports.

B.S. in entomology required. M.S. preferred.

This position is located in Riley County and will remain posted until filled. For more information and to apply, search for entomologist at: <http://jobs.ks.gov/>.

Legislative updates: continued from page 1

Amendments to the Kansas Seed Law modernize the act by updating the handling of treated seed, updating definitions (including recognition of industrial hemp seeds as agricultural seed), updating label and wholesaler and retailer requirements, adding civil penalty authority for violations, and updating language for lawn and turf seed to provide clearer language for consumers.

Amendments to the Hemp Act revoke most of the statutes that established the original Industrial Hemp Research Program now that the state is operating under a USDA-approved commercial production program. The Industrial Hemp Advisory Board established via the research statutes will be made part of the commercial

program. Amendments also provide clarification on lab testing for non-licensees, allow for a fee schedule for other entities that request industrial hemp testing services, and develop a fund to cover equipment costs.

HB 2563, containing these amendments, was introduced in early 2022. The bill was later integrated into HB 2559. Governor Kelly signed this bill into law on April 18 with the changes set to take effect July 1, 2022.

PPWC will continue to work with stakeholders to update corresponding regulations and provide clear guidance to licensees about the changes.

PPWC newsletters and reports

For more detailed information about pests and program work, please check out these subject-specific updates on our website. We are still working to provide an option to subscribe to these newsletters online.

Entomological News: Prepared by K. Taro Eldredge, State Entomologist
Agriculture.ks.gov/PPWC > Insects > Insect Survey and Reports
agriculture.ks.gov/Insects

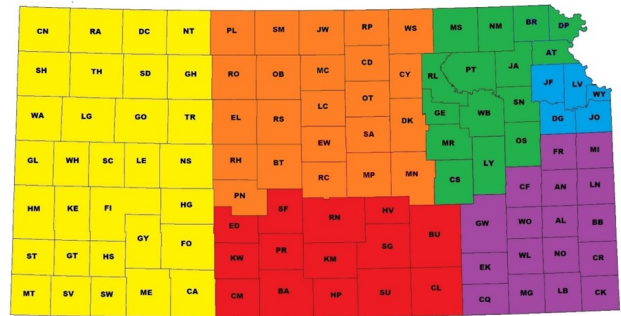
Plant Disease in Kansas: Prepared by Gaelle Hollandbeck, State Plant Pathologist
Agriculture.ks.gov/PPWC > Plant Diseases > Plant Disease Reports
agriculture.ks.gov/PlantDiseases

Noxious and Invasive Weed Update: Prepared by Scott Marsh, State Noxious and Invasive Weeds Specialist
Agriculture.ks.gov/PPWC > Noxious Weed Control Program > Noxious and Invasive Weed Newsletters
agriculture.ks.gov/NoxiousWeeds

Plant Protection & Weed Control Staff

Program Manager
 Jeff Vogel
 785-564-6699 (O)
 785-207-0586 (C)
Jeff.Vogel@ks.gov

**Export Coordinator /
 Office Manager**
 Sarah Hawver
 785-564-6698
Sarah.Hawver@ks.gov



State Specialists

CAPS Coordinator
 Laurinda Ramonda
 785-580-9194 (C)
Laurinda.Ramonda@ks.gov

**Industrial Hemp
 Supervisor**
 Braden Hoch
 785-564-6789 (O)
 785-307-3590 (C)
Braden.Hoch@ks.gov

Entomologist
 vacant
 785-564-6796 (O)
KDA.PPWC@ks.gov

Plant Pathologist
 Gaelle Hollandbeck
 785-564-6787 (O)
 785-370-1046 (C)
Gaelle.Hollandbeck@ks.gov

**Noxious and Invasive
 Weeds & Agricultural Seed**
 Scott Marsh
 785-564-6697 (O)
 785-207-2118 (C)
Scott.Marsh@ks.gov

Regional Specialists

West
 Bob Buhler
 785-207-1507 (C)
Bob.Buhler@ks.gov

North Central
 Erin Lepski
 785-210-5776 (C)
Erin.Lepski@ks.gov

Northeast
 Amy Jordan
 785-410-1119 (C)
Amy.Jordan@ks.gov

**KC Metro &
 Field Supervisor**
 Jennifer Smith
 785-213-6890 (C)
Jennifer.L.Smith@ks.gov

Southeast
 Jeremy Maples
 785-256-3849 (C)
Jeremy.Maples@ks.gov

South Central
 Ty Schaefer
 316-295-6436 (C)
Ty.J.Schaefer@ks.gov