

Invasive Pest news & notes

Extension
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ABOUT THIS ISSUE

Welcome to the first issue of Invasive Pest News & Notes! The goals of this new outreach publication are to increase public awareness of invasive pests and promote and strengthen multi-stakeholder involvement in research and management initiatives. This issue highlights some of the work conducted by agencies that form the Utah Cooperative Agricultural Pest Survey (CAPS) Committee. CAPS is a federal program coordinated by the United States Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) whose mission is to protect U.S. resources from exotic species. The Utah CAPS Committee meets once a year to discuss and plan ongoing and future priorities and strategies. The next meeting is March 9, 2023 from 10 AM to 12 PM. The committee welcomes other stakeholders to participate. Email caps@usu.edu if you have input or questions for the committee, or would like more information about next year's meeting.



USDA ANIMAL AND PLANT HEALTH INSPECTION SERVICE

The [United States Department of Agriculture, Animal and Plant Health Inspection Service \(USDA APHIS\)](#) is the federal agency responsible for safeguarding U.S. food, agriculture, and natural resources against pests that threaten crops and forests. The agency's varied functions include maintaining inspections at ports of entry, conducting plant pest surveys, establishing and maintaining federal plant pest quarantines, providing identification diagnostic services, conducting risk assessments, responding to animal and plant health emergencies, issuing phytosanitary certificates, carrying out pest control operations, and conducting research and development of new tools for early detection of exotic species and pest control methods. In addition, USDA APHIS provides funding to state, local, and industry partners to support their mission of protecting U.S. resources, in part through the [Cooperative Agricultural Pest Survey \(CAPS\)](#) and the [Plant Protection Act's \(PPA\) Section 7721](#) programs. The agency also produces several outreach products, including informational websites, such as [Hungry Pests](#) and [Pest Tracker](#), comprehensive pest data sheets (see one example [here](#)), and various manuals and guides to assist personnel and cooperators in their efforts.



Asian longhorned beetle (ALB) threatens hardwood trees, including maple, ash, birch, poplar, and willow. This beetle has not been detected in Utah. Some native lookalike insects may be mistaken for ALB; however, suspicious insects should be confirmed by local authorities.



European cherry fruit fly (ECFF) infests ripening cherry fruits. USDA APHIS provides funding to cooperators to conduct early detection surveys for this and other pests throughout the U.S. ECFF is not known to occur in Utah. It is related to the western cherry fruit fly, which is a common pest of cherries in the west.

UTAH WEED SUPERVISORS ASSOCIATION



Canada thistle is managed in part by using *Puccinia punctiformis* (visible as orange spores on the undersides of leaves), a naturally occurring rust fungus that can only grow on Canada thistle.

The [Utah Weed Supervisors Association \(UWSA\)](#) promotes awareness and management of noxious weeds, such as field bindweed, Russian knapweed, dalmation toadflax, and purple loosestrife. Noxious weeds can infest field crops, rangelands, pastures, and roadsides; cause the death of native plant species; and contribute to increased fire frequency and intensity. Check out the UWSA's biannual newsletter, [The Invader](#), which showcases several noxious weeds, provides status reports on biological and chemical control programs, and highlights recent scientific research and best practices. Also check out the [Utah Weed Control Association](#), another important and excellent resource for knowledge about those nasty weeds!

U.S. FOREST SERVICE

The USDA Forest Service [Forest Health Protection](#) (FHP) is dedicated to maintaining, enhancing, and restoring healthy forest conditions. FHP protects forest resources in part by surveying for insect pests such as spongy moth and Douglas-fir tussock moth. The agency also conducts research and develops tools to help land managers and other stakeholders better understand and manage forest health. For example, FHP has teamed up with Utah State University to develop a climate-based phenology model that predicts key developmental stages of the balsam woolly adelgid (BWA) and create a hazard-rating system to better enable forest managers to identify at-risk stands. Another research project that FHP is working on in collaboration with University of Utah researchers involves developing remote sensing methods to detect BWA infestations, severity, and mortality.



The balsam woolly adelgid is a tiny insect that attacks true firs, such as subalpine fir. The insect and damage has been reported from multiple counties in Utah, including Rich, Cache, Box Elder, Weber, Davis, Morgan, Salt Lake, and Summit counties.

UTAH DEPARTMENT OF AGRICULTURE AND FOOD

The Utah Department of Agriculture and Food's [Insect and Pest Program](#) is the regulatory entity charged with protecting Utah agriculture from harmful plant pests including the Japanese beetle, emerald ash borer, spongy moth, as well as invasive honey bees (giant honey bee and Asian honey bee) and honey bee pests, such as American foulbrood (*Paenibacillus larvae*) and the *Tropilaelaps* mite. The program conducts extensive early detection surveys for these and other pests, provides phytosanitary inspections and certificates that allow Utah plants and plant products to be shipped to other states and foreign countries, and administers insect and plant quarantines to mitigate the risk caused by invasive species. For example, the [Utah Firewood Quarantine](#) (UAC R68-23) helps prevent the spread of invasive pests that can be transported by firewood. Further, the program releases an [Insect Report](#) each year that highlights their activities and accomplishments.



The Japanese beetle has an extensive plant host range, and both adults and larvae (grubs) cause damage. Eradication efforts were conducted by the Utah Department of Agriculture and Food this spring in Salt Lake, Davis, and Weber counties after several beetles were detected in 2021.



Spongy moth, named after the insect's sponge-like egg mass, threatens U.S. forests. The caterpillars feed on hundreds of tree species. The Utah Department of Agriculture and Food detected 1 adult moth in Salt Lake County in 2020. Although no spongy moths were detected in 2021, extensive monitoring efforts will continue.

U.S. CUSTOMS AND BORDER PROTECTION

The [U.S. Customs and Border Protection \(CBP\)](#) is the federal law enforcement agency within the Department of Homeland Security that serves as front line in the battle against exotic species. Among many other responsibilities, CBP inspects agricultural commodities and cargo at borders and ports of entry, including airports and other international border checkpoints. CBP provides security and facilitation operations at more than 300 ports of entry throughout the country, including the Salt Lake City International Airport which receives flights from all over the world, including from countries in Europe, Asia, and other continents.



A U.S. Customs and Border Protection Agriculture Specialist inspects a shipment of peppers for pests and disease at a port of entry in El Paso, Texas.



Agriculture Specialists inspect containers at ports of entry for pests that may have attached themselves in foreign countries and made their way to the U.S.

UTAH STATE UNIVERSITY EXTENSION

[Utah Pests](#) is a group of entomologists and plant pathologists who work to solve the thousands of plant and pest issues that concern the agricultural producers and citizens of Utah. Utah State University's Extension plant pest programs are diverse in their coverage and include the [Utah Plant Pest Diagnostic Lab](#), which offers identification diagnostic services and management recommendations to the public, and the [Integrated Pest Management \(IPM\) Program](#), which promotes IPM practices to diverse audiences in order to reduce both pesticide use and crop losses to pests and plant diseases. Utah Pests produce a [quarterly newsletter](#), [IPM advisories](#), [fact sheets](#), [books and management guides](#), and other outreach products to assist with plant and pest management decisions. In addition, Utah Pests conducts early detection surveys for new invasive pests and diseases; provides training webinars and workshops to Master Gardeners, agricultural producers, arborists, and other first detectors; and carries out research on some of the invasive pests that are present in the state, such as the brown marmorated stink bug and balsam woolly adelgid. The [Utah CAPS program website](#) is housed within the Utah Pests website.



The brown marmorated stink bug (BMSB) was first detected in Utah in 2012 by a trained Master Gardener. Crop damage has been reported since 2017 in mostly urbanized orchards and farms along the Wasatch Front. Research at Utah State University has focused on conducting host plant surveys, examining the impact of feeding damage on early to mature developmental stages of tart cherry, and biological control using tiny parasitoid wasps that attack the egg stage of BMSB.

UTAH DIVISION OF FORESTRY, FIRE, & STATE LANDS



Invasive pests can disrupt the normal functioning of forest ecosystems and contribute to increased fuel fire load.

The [Utah Division of Forestry, Fire, & State Lands \(FFSL\)](#) has varied responsibilities including maintaining and promoting forest health, and responding to wildland fires on state and private land. Besides other agencies that form the Utah CAPS Committee, FFSL also partners with Tree City USA and the Utah Community Forest Council to address native and invasive insect and disease issues that threaten Utah forests. The [Insect and Disease](#) page on their website contains links to fact sheets, leaflets, and brochures on some of the most harmful tree pests, as well as reports and other publications that describe their survey activities and other important work being carried out by their team.

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