

THE PURDUE LANDSCAPE REPORT

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5 Bugs that Might Hitchhike on Holiday Decorations: 3 harmless and 2 to worry about

(Elizabeth Barnes, barne175@purdue.edu)

Key Information:

- Insects rarely get transported inside on decorations.
- DO NOT treat your decorations with insecticide. This is **potentially dangerous to your family and pets**.
- Don't worry. Most of the insects that hitch a ride on decorations are harmless.

A surprise, six-legged guest is the last thing most people want to deal with during the holidays. Though this is **very rare**, a few people find themselves in just such a predicament each year. Don't worry. Most of these bugs are harmless. They're just confused. Insects sometimes get brought inside on holiday decorations. The warm temperatures indoors trick the insects on this list into behaving like it's spring. They emerge thinking the world around them is coming to life, only to find a strange place with no food or water for them. Most of these insects are **not harmful** and will likely die in a few days.

What to do

The three best ways to deal with insect or spider stowaways are:

1. Check your decorations before you bring them inside. Look at the trunk and branches for any signs of eggs. If you find any, scrape them off and put them in soapy water to kill them.
2. If they make it inside, use your preferred bug-catching method. This includes: carefully catching in a jar, vacuuming, and gently tossing outside.
3. If you're not sure what kind of bug it is, take a photo and [report it!](#) Invasive species sometimes hitch a ride on plant

material and we want to know about it as soon as possible so we can stop them from spreading further.

The Most Common Stowaways

Insects not to worry about....

1. Praying mantises

Praying mantises occasionally lay their eggs on plants used for holiday decorations. Depending on the species of mantis, eggs either form a round ball a little smaller than a ping-pong ball or lie flat on the branch (image 1). In all cases, the egg mass has a slightly foamy texture. If you find the eggs before bringing the decorations inside, clip off the branch and place it in your garden. The mantises will hatch in the spring and provide some extra pest control to your plants. If the eggs hatch inside, you may notice a large number of tiny, delicate mantises spread out around your tree. The mantises are unlikely to survive long due to the dry climate indoors and the lack of food. They can either be vacuumed up or caught in jars.



Image 1: Mantis eggs can be oblong or round like a ping pong ball. Regardless of their shape, they are pale brown and have a Styrofoam texture. Newly hatched mantises look like a more delicate version of their adult form. Photo credits: Whitney Cranshaw; Elizabeth Barnes, Purdue University.



Image 2: Spiders and their eggs come in many shapes. Two that you may encounter are eggs that have been attached to a curled leaf with silk and a round ball either carried by a mother spider or attached to a leaf. Photo credits: Whitney Cranshaw; Bart Everson.

2. Spiders

No, spiders aren't insects, but they are another common stowaway on holiday decorations. Spiders may shelter for the winter as adults or eggs inside plants that are common holiday decorations (image 2). They can be carefully caught in a jar and tossed outside.



Image 3: Aphids sometimes hatch when brought indoors on holiday decorations like Christmas trees. They will quickly die due to lack of food and the dry air. Photo credit: S. Rae.

3. Aphids

Aphids are occasionally found on holiday decorations (image 3). Many species of aphids have life cycles tied to temperature. When they are brought inside in the winter, they become confused and emerge early. They generally die quickly on their own because the decorations do not have enough sap to sustain them. In addition, many aphids only eat very specific types of plants and are therefore unlikely to cause problems for most house plants.

Insects to worry about....

4. LD Moth (Formerly gypsy moth)

LD moths (formerly known as gypsy moths) are an invasive caterpillar that can cause serious damage to oak and evergreen trees. These moths sometimes lay eggs (image 4) on plants that are transported for holiday decorations. The best ways to avoid bringing them indoors is by checking decorations for egg masses. Egg masses are roughly oval shaped, brown, and fuzzy. They contain 500-1,000 eggs which hatch into tiny, fuzzy caterpillars (~0.25 in long) with big heads. If you find egg masses or caterpillars, take a photo of them and send in a [report](#). Next, carefully scrape them into a container of soapy water and leave them overnight.



Image 4: LD moths sometimes lay their eggs on plants that are used as decorations. Check for brown, fuzzy egg masses like these and report them if you find any. Photo credit: Ferenc Lakatos



Image 5: A. Adult spotted lanternflies sometimes hitch a ride on cut plants. Note the bright red hind wings and yellow abdomen. B. Spotted lanternfly eggs easily blend into tree trunks. Here two adults sit next to a freshly laid egg mass. C. Newly hatched spotted lanternfly are small, black with white spots, and will hop when disturbed. Photo credit: A and B-Elizabeth Barnes, Purdue University; C-Pennsylvania State Extension.

5. Spotted Lanternfly

Spotted lanternfly is a serious invasive insect recently found in Indiana. These insects are devastating to vineyards, can harm many types of plants, and are a general nuisance to everyone else. Adults (image 5A) and egg masses (image 5B) have been found hiding in potted plants and on tree trunks. Adults are shaped like a cicada and have striking red hind wings with black and white spots. Eggs are much harder to notice because they look like caked on mud or putty. If the eggs hatch, you might notice small black insects with white spots (image 5C) hopping near your decorations. If you find any of them, [report](#) them right away to help prevent them from becoming established in your area.

You can send in the report through:

- [The GLEDN Phone App](#)
- [EDDMaps](#)
- 1-866 NO EXOTIC (1-866-663-9684)
- depp@dnr.IN.gov

End of the Year: State of the Industry

(Kyle Daniel, daniel38@purdue.edu)

It's almost the time of the year to begin evaluating the season and looking forward to 2022 (after a trip or two to somewhere warmer for many of you) after the second of two of the busiest seasons on record. Though no one (or very few) is complaining about the glut of work available over the last couple of years, the stress to push hard for multiple seasons can cause extra stress and burn-out on administration, sales, management, and workers. It's important to keep the health, both physical and mental, in mind of your fellow employees throughout these stressful times, especially as we enter the holiday seasons. Here is an article that contains practical advice for helping to prevent burnout:

<https://www.forbes.com/sites/heidilynnekurter/2021/04/27/employers-here-are-4-ways-you-can-begin-to-effectively-tackle-employee-burnout/?sh=596b1d316009>. There are many resources available for free if you or your employees need guidance on navigating mental health. The National Alliance on Mental Illness can provide important information, which can be found here: <https://nami.org/Home>



There are several 'State of the Industry Reports' that are hot off the presses right now. Generally these reports should be taken with a grain of salt, but by analyzing multiple reports, a clearer picture can be achieved. I encourage you to participate in these annual surveys to provide a more accurate picture of the industry statistics.

The major takeaways from the recently released reports:

- Labor
- Supply chain
- Working from home
- Covid unknowns
- Fuel price fluctuations

Labor- Labor has been THE primary issue for our industry for many years, with each year becoming more important. With major changes in the H-2B program and the general labor force not engaged since Covid, labor deficiencies showcased as an

even more major problem in 2021. While our industry has had more problems with labor in the past, in 2021 the entire economy (with the service industry leading) is facing labor shortages. This has in turn made the supply chain crisis worse. It doesn't appear that the labor issues in our industry will change in the immediate future unless legislation on H-2B changes in 2022. Most companies have increased wages and offered a benefit package to employees in order to attract new employees and retain current employees.

Supply chain- We all have heard about supply chain issues in the media over the last several months and its impact on purchasing items. The issue is no different with our industry, especially in the pesticide market. Many of the pesticides that are used in the US are manufactured in Asian countries. Due to the backlog of sea shipments, as well as strict Covid quarantines in some of the countries, these products aren't arriving at our ports. The shipments that do arrive at our ports have increased in price exponentially. Plan for pesticides in 2022 to be significantly more expensive than we have seen in the past.

Working from home- The Covid crisis has shaken up the workplace with many people still working from home full time or on a hybrid schedule. This has allowed homeowners to spend more time considering outdoor improvements, such as kitchens, offices, landscaping, and pools. This trend started in 2020 and has continued into 2021.

Covid unknowns- While things are beginning to normalize from Covid, no one knows if/when another wave will affect the US. While it appears that we are on the upswing from the last couple of years, there is some caution of a variant becoming a dominant strain, thus returning much of the country into another quarantine situation again. Be sure to continue following CDC guidance at your company to reduce the spread of a potential variant.

Fuel fluctuations- Gas prices were at record lows in 2020 due to very few people travelling and commuting. There was way more supply than demand, but as things have returned to a 'more' normal, the prices have dramatically increased in 2021. Once supply catches back up with demand, prices should begin to decrease in the near future.

We should all be thankful for the successes of the Green Industry right now. For those of us that saw the late 2000's, we're in a completely different place for the better these days. There are always challenges, but our industry looks primed to have another record breaking year in 2022. Good luck and take some much needed rest over the winter.

Below are several state of the industry reports for 2021. These reports will give you an idea about what our industry will face in 2022 and how other companies stack up against your company.

Lawn and Landscape 2021 State of the Industry Report

https://giecdn.blob.core.windows.net/fileuploads/document/2021/10/06/soi%202021_october_hi%20res-compressed.pdf

<https://www.lawnandlandscape.com/article/state-of-industry/>

IBIS World

<https://www.ibisworld.com/industry-statistics/market-size/landscaping-services-united-states/#:~:text=The%20market%20size%2C%20measured%20by,is%20%24105.1bn%20in%202021.&text=The%20market%20size%20of%20the%20Landscaping%20Services%20industry%20is,decline%20%2D0.2%25%20in%202021>

<https://www.ibisworld.com/united-states/market-research-reports/landscaping-services-industry/>

State of the Snow Labor Market

<https://www.lawnandlandscape.com/article/filling-in-the-ranks/>

LandPro State of the Landscape Industry: 2021

<https://nipgroup.com/resources/industry-reports/landscaping/>

Mordor Intelligence US Landscaping Market

<https://www.mordorintelligence.com/industry-reports/united-states-landscaping-market>

Garden Center Magazine 2021 State of the Industry Report

<https://www.gardencentermag.com/keyword/state-of-the-industry/>

Nursery Management Magazine 2021 State of the Industry Report

<https://www.nurserymag.com/keyword/state-of-the-industry/>

Start Clean, Stay Clean

(John Bonkowski, jbonkows@purdue.edu)



Figure 1: Brown marmorated stink bug hitchhiker on a living wreath.

We are in the swing of the holiday season and Christmas decorations, ranging from trees to living wreaths, are for sale at stores. Thinking ahead, you might already have in mind how to dispose of plant material after the holidays, but it is important to take into consideration an important pillar of plant disease management when you decide on a location: Exclusion.

When dealing with living plant material, whether seeds, bulbs, or nursery stock, these plants could be carrying pathogens or pests from where they were originally grown (Figure 1). Movement of these materials can be a pathway for the introduction of diseases to new areas. This is not only restricted to intact or whole plants. Cut stems, flowers, mulch, wreaths and Christmas trees can also help move these organisms around.

In 2017 our lab received a wreath from an Indiana Department of Natural Resources (IDNR) Inspector that included cut stems from fir, juniper, and boxwood (Figure 2). The boxwood foliage showed symptoms of boxwood blight and we confirmed the pathogen, *Calonectria pseudonaviculata*, by microscopic examination (Figure 3 and 4). Depending on how an infected wreath was handled and disposed after the holidays, the boxwood blight pathogen could enter a customer's landscape without them knowing. *Calonectria* can survive in plant debris in the soil for years, so there is potential for infection and spread to boxwood in the landscape. Fortunately, the IDNR acted quickly in the 2017 case and, through outreach, infected wreaths that had been sold in the state were returned by customers and destroyed to prevent spread.



Figure 2: The sample collected by the IDNR Inspector to examine for boxwood blight.



Figure 3: Boxwood leaves within the wreath that show symptoms of leaf blighting.



Figure 4: Black lesions on green boxwood stems which are characteristic of boxwood blight.

Exclusion as a management strategy is the first line of defense in preventing the introduction of new pests and pathogens. Starting with clean seed or nursery stock is the usually the first step in attempting to stay clean and free from diseases. Phytosanitary certification and inspection of nursery stock by regulatory agencies can help prevent the movement of infected/infested plants, but when you are purchasing plants don't hesitate to do your own inspection, so you can avoid sickly plants. Quarantining plants that were just purchased can allow time for plants to develop symptoms if they are not known to be pest free.

The spread of new pests and diseases to locations that they can thrive is regarded as inevitable, but by utilizing exclusion-type management, we can delay their entrance and prevent a disease problem from developing. Trees and wreaths can be taken to recycling centers, but we do not recommend composting the plant material on site, especially if there are visible symptoms of disease.

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