

# THE PURDUE LANDSCAPE REPORT

## In This Issue

- [Options for Dealing with a Pesticide Drift Incident](#)
- [Dianthus Anthracnose](#)
- [Time to Celebrate Trees!](#)
- [Effects of Recent Cold Temperatures on Plants](#)
- [Purdue Landscape Report Virtual-The second season begins!](#)

## Options for Dealing with a Pesticide Drift Incident

(Fred Whitford, [fwhitford@purdue.edu](mailto:fwhitford@purdue.edu)) & (Joe Becovitz, [becovitz@purdue.edu](mailto:becovitz@purdue.edu))



Pesticide drift can occur

virtually anywhere — between neighboring farms, farms and residential properties, or neighboring residential properties. Whether it's a next-door neighbor or a farmer who owns the field adjacent to your property, they have the legal right to apply pesticides to their property or property they lease. However, pesticide applicators also have the legal obligation to keep those products on their side of the property line, and you have the right to not have pesticides drifting onto your property.

**What Are Signs of Drift?** Pesticide drift can harm human health, injure livestock and pets or damage plants and other properties. Here are some things that may occur that should make you consider pesticide drift: 1. You felt a pesticide application spray physically touch you. Direct exposure to

pesticides is a serious matter and you should never treat it lightly.

If you come in contact with a pesticide, remove your clothing and shower. Retain your clothes in a sealed bag for possible residue testing. Seek medical advice about further actions. 2. You observe distorted or discolored leaves on your trees, landscape or garden plants, or crop plants. 3. You observe spray mist moving onto your property. 4. You notice dead honeybees, dead fish, or areas where vegetation has yellowed or died suddenly.



Find Out the Cause of

**Damage** It's easy to blame a neighbor for pesticide drift, but before you act, be sure to take some important steps to determine if the problem you're experiencing was a result of drift: First, determine if the symptoms you observe were caused by drift or if they were caused by other problems such as insect pests, diseases, salt damage, mowing injury, root compaction or weather-related issues such as drought or cold injury. Purdue Extension county educators can help you determine the cause of the injury symptoms. The educators will look for any possible explanations for the damage, including nutrient deficiencies; insect, weed, and disease problems; improper planting and cultivation practices; and environmental conditions. They may even suggest that you submit a sample to the Purdue Plant & Pest Diagnostic Laboratory where a specialist will examine the sample. To find your Purdue Extension county office call 888-EXT-INFO or go to [www.extension.purdue.edu/about#counties](http://www.extension.purdue.edu/about#counties).

How you respond to a drift incident depends on many factors, including the extent of injury caused by the drift, the relationship

you have with the application business or applicator, and how the company representative responds to your concerns. The choice of what action to take is your responsibility. It is a personal decision and there is no single right or wrong approach. Remember evidence is time sensitive; delaying the filing of your complaint may negatively affect its outcome. Pesticide residues may be difficult or impossible to detect if there is a delay in an investigation.



The Office

**Office of Indiana  
State Chemist**

of Indiana State Chemist (OISC) is an independent state agency that has the responsibility to investigate pesticide complaints. They investigate complaints at no cost. OISC will only determine if drift occurred and if the applicator violated the product label or Indiana Drift Rule. At the conclusion of the case both the complaining party and the applicator receive a copy of the findings. OISC does not get involved in matters of restitution or compensation for loss. If OISC determines there has been a violation, then you will need to decide if and how you wish to quantify the loss and whether to seek compensation for your loss. You can seek damages directly with the applicator, with insurance companies, or through civil proceedings. To file a complaint with OISC call 765-494-1589 or go to [www.oisc.purdue.edu/pesticide/index.html](http://www.oisc.purdue.edu/pesticide/index.html) and click on Filing a Pesticide or Fertilizer/Manure Complaint.

This article was excerpted from Purdue Pesticide Programs publication PPP-110, authors Michael O'Donnell, Roy Ballard, Fred Whitford & Joe Becovitz

## Dianthus Anthracnose

(Tom Creswell, [creswell@purdue.edu](mailto:creswell@purdue.edu))

Dianthus is a much-admired perennial, but occasionally it develops serious disease problems. The most dramatic of these is anthracnose, caused by the fungus *Colletotrichum*.

The disease may spread rapidly on greenhouse benches or in landscape plantings of susceptible dianthus varieties. The old-fashioned 'Sweet William' varieties seem to tolerate this disease fairly well and may only have minor damage, but several other varieties are highly susceptible. Unfortunately, variety descriptions generally don't include disease susceptibility ratings and trial garden ratings for this plant are lacking.



Figure 1: Dianthus plants showing browning and spotting of lower leaves caused by anthracnose.



Figure 2: Heavily infected plants have tan to brown discoloration of lower leaves with black dots.

In landscape plantings the disease usually shows up in late spring, especially in years with frequent rainfall. Symptoms begin as irregular spotting and blighting of lower leaves, which later turn brown. Infected leaves and stems later show characteristic black spots as the fungus reproduces. All lower leaves may turn brown and, if left unchecked, the infection may move into the main stem, causing collapse of the entire plant. Spores of the fungus are spread by splashing water and by handling operations in the greenhouse or by wind and splashing water in the landscape bed.





Figure 3: In advanced stages the fungus invades the main stem.



Figure 4: On closer examination the black “dots” show small black needle like structures surrounded by a mass of spores. These needles are called setae and are characteristic of many of most fungi in the genus *Colletotrichum*.



Figure 5: A microscopic view of a single spore mass shows the crescent moon-shaped spores which spread to other plants to cause new infections.

Non-chemical controls include removing diseased material, spacing plants to allow better drying of foliage, planting in well drained sites and mulching to reduce splashing water. Also

consider irrigating using a drip system in landscape beds to reduce leaf wetness. Fungicides may be necessary in the greenhouse or with highly susceptible varieties in the landscape.

## Time to Celebrate Trees!

(Lindsey Purcell, [lapurcel@purdue.edu](mailto:lapurcel@purdue.edu))

J. Sterling Morton had a strong enthusiasm for trees and advocated intensely for individuals and civic groups to plant them. Once he became secretary of the Nebraska Territory, he further spread his message of the value of trees and Morton first proposed a tree planting holiday to be called “Arbor Day” at a meeting of the State Board of Agriculture.

The celebration date was set for April 10, 1872. Prizes were offered to counties and individuals for the largest number of properly planted trees on that day. It was estimated that more than 1 million trees were planted in Nebraska on the first Arbor Day.

Many other states also passed legislation to observe Arbor Day each year. By 1920, more than 45 states and territories were celebrating Arbor Day. The tree planting tradition became prominent in schools across the nation in 1882, with students were learning about the importance of trees as well as receiving a tree to plant in their own yard. They continue to do so today in many states.



Trees make a difference in our lives, every day.



Celebrate arbor day by planting a tree!



Currently, Arbor Day is celebrated in all 50 states. The most common date for the state observance is the last Friday in April — National Arbor Day — but a number of state Arbor Days are at other times to coincide with the best tree planting weather, from January and February in the south to May in the far north.

[Find out when people in your state gather together to plant and celebrate trees.](#)

So, just why do we celebrate trees? They are essential to our health and quality of life. Trees provide many benefits, called ecosystem services, that impact nearly every aspect of our daily life. Trees improve air and water quality, reduce heating and cooling costs, improve health outcomes, increase business, and so much more. Simply stated, we need trees.

How do we determine the value of those benefits trees provide where we live? Research and technology have made it much easier to quantify those ecosystem services. The value of your tree and the ecosystem services it provides can be found by visiting this [web page](#). It's fun and easy to find out just what your tree contributes to the urban forest.



Trees provide ecosystem services including shade.



Find out what your tree is worth in benefits.

part in a community tree planting. Learn how to choose and plant a tree properly to help improve the longevity and hopefully it will be providing those benefits in the future for your grandchildren and beyond. Trees can be a living legacy to great environmental stewardship. Plant trees not just for the future, but with a future.

Some additional resources are available below:

- [Choosing a tree video](#)
- [Tree selection list](#)
- [How to plant a tree video](#)
- [Tree planting process](#)

For the best advice on tree planting and care, seek out a tree care professional with the experience and expertise to care for your trees. [Search for a tree care provider in your area](#). Also, consider hiring an [ISA Certified Arborist which can be found here](#).

## Effects of Recent Cold Temperatures on Plants

(Kyle Daniel, [daniel38@purdue.edu](mailto:daniel38@purdue.edu))

The hard freeze last week had many homeowners concerned about their perennial and annual plants in their landscape. For the vast majority of perennial plants, there aren't many issues long-term of concern. Some foliage and flowers have significant damage, but the plants will recover, and possibly release new vegetative buds in severe cases. The plants that suffered the most damage, and in some cases death, are the annuals planted by impatient landscapers and gardeners. Planting annuals prior to the frost-free date (May 10<sup>th</sup> in central Indiana) will more than likely cause a replant to occur.

Join us in paying tribute to our trees which make up our urban forests by selecting and planting a tree where you live or taking





Figure 1. Cold temperatures and cold on April 21-22 caused stress on many plants that have broken buds.

In addition to the potential stress from the temperatures, many trees received broken limbs due the combined weight of the leaves/flowers and snow load.



Figure 2. A Japanese Zelkova in full leaf with a heavy snow load.

If you maintain a client's fruit trees (i.e. apples), there may be a significant impact on fruit production. The Purdue Meigs Horticultural Research Farm, located about eight miles south of the West Lafayette campus, recorded a low temperature of 22° F on April 21<sup>st</sup>. Dr. Peter Hirst, pomologist, indicated that at the current stage of flowering a temperature of 25° F might result in a 90% bud kill. Since there was a significant snowfall, the hope is that there was some moderation in temperatures.



Figure 3. Apple flowers on April 22 in West Lafayette. Photo by Tristand Tucker.





Figure 4. Apple flowers on April 22 in West Lafayette. Photo by Tristand Tucker.



Figure 5. Apple flowers on April 22 in West Lafayette. Photo by Tristand Tucker.

Plants that have been stressed due to cold temperatures should be closely monitored over the growing season. Don't prune 'dead' portions until you allow more buds to break. Chances are the early foliage was dropped and new leaves will soon emerge. Be sure to provide adequate moisture to assist in recovery. Currently about half of the state is in the beginning stages of drought, so be sure to provide irrigation now if your area is dry.

It is the policy of the Purdue University that all persons have equal opportunity and access to its educational programs, services, activities, and facilities without regard to race, religion, color, sex, age, national origin or ancestry, marital status, parental status, sexual orientation, disability or status as a veteran. Purdue is an Affirmative Action Institution. This material may be available in alternative formats. 1-888-EXT-INFO Disclaimer: Reference to products in this publication is not intended to be an endorsement to the exclusion of others which may have similar uses. Any person using products listed in this publication assumes full responsibility for their use in accordance with current directions of the manufacturer.

Always remember that too much water can be just as detrimental as too little water.

The Indianapolis Star published an article on the extreme low temperatures that can be found here:

<https://www.indystar.com/story/news/environment/2021/04/21/indianapolis-weather-how-protect-plants-unexpected-snow/7317219002/>

## Purdue Landscape Report Virtual-The second season begins!

(Kyle Daniel, [daniel38@purdue.edu](mailto:daniel38@purdue.edu))

The Purdue Landscape Report Virtual educational series begins the second season on May 5<sup>th</sup> at 10:00 am (Eastern). Various speakers will present timely information during the growing season for the Green Industry. You have the opportunity to ask questions and interact with the speakers at each event. The 2020 educational events can be found on the Purdue Landscape Report Facebook page:

<https://www.facebook.com/PurdueLandscapeReport/>

To see topics and speakers, follow the Purdue Landscape Report Facebook or Twitter at:

<https://www.facebook.com/PurdueLandscapeReport/>

<https://twitter.com/PurdueLandscape>

You can join the conversation on Facebook or Zoom:

<https://www.facebook.com/PurdueLandscapeReport/>

<https://purdue-edu.zoom.us/j/9207718963?pwd=MGtCUDJlY0hCTStXcGZoSEJhdVZMQT09>

The links will be the same for each event every two weeks.

If you have questions or problems joining, please email Kyle Daniel at [daniel38@purdue.edu](mailto:daniel38@purdue.edu)

Purdue Landscape Report © Purdue University - [www.purduelandscapereport.org](http://www.purduelandscapereport.org)

Editor: Kyle Daniel | Department of Horticulture and Landscape Architecture, 625 Agriculture Mall Dr., West Lafayette, IN 47907