

# THE PURDUE LANDSCAPE REPORT

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## Ornamental Pear Fallout

(Rosie Lerner, [rosie@purdue.edu](mailto:rosie@purdue.edu))



Ornamental pear in full bloom.

Photo Credit: L. G., Valparaiso, Indiana

**Q:** I've attached pictures of the only tree we have on our property. Because it is our only tree, I am deeply concerned with the possibilities of irreparable damage to it. As you can see, one of the branches broke off during a November windstorm. Unfortunately, that left a bare gap on the trunk. Please let me know how to treat this damaged area so no further damage is done to it and tell me what can be done to preserve its longevity.

I do not know the name of this tree but it's local. It is found almost everywhere in this area. It blooms white flowers in the spring that fall off shortly after and changes to beautiful colors in the fall. As you can see, it is a beautiful tree. Please help and thank you so much. – L. G., Valparaiso, Indiana

**A:** To answer the second part of your question first, your tree is one of the ornamental Callery pears, possibly 'Bradford' or related cultivar. These ornamental pears were quite commonly planted in the urban landscape for many years, but they are not native to our area. In fact, they have become a serious invasive species. (More on this a bit later.)



Narrow branch angles leading to limb breakage common in ornamental pears.

Photo Credit: L. G., Valparaiso, Indiana

A big shortcoming of 'Bradford' is that it has numerous crowded and narrow branch angles that weaken the architecture of the tree. This characteristic is well illustrated in your photos.

Branches are likely to break in storms, and trees become structurally unsound.

I recommend that you remove the lower affected limb completely, cutting just beyond the ridge of bark where it joins the trunk. Though this will leave a large pruning wound, it will be better than the current jagged wound. We do not recommend pruning paint or other pruning sealants. Additional thinning/removal of excessive branches — including the watersprouts (vigorous, upright twigs) — might help reduce further limb breakage. These watersprouts grow large over time, so removing while they are small will reduce the weight load on branches.

Additional information on how to prune is available at <http://www.extension.purdue.edu/extmedia/HO/HO-4-W.pdf>.

Now, back to the issue of the invasive nature of ornamental pears. Years ago, in trying to fix the problem of poor structure in the 'Bradford' cultivar, the quest was on to introduce improved cultivars with better branch architecture. Enter additional ornamental pear cultivars such as 'Aristocrat', 'Chanticleer', 'Cleveland Select', 'Redspire', and 'Whitehouse'.



Variation in fruit size on seedling ornamental pears.

These ornamental pears did not fruit much if at all on their own, but unfortunately, they do become fruitful when they cross-pollinate. The result is that “volunteer” pear trees are seeding themselves in alarming numbers in many areas where the pear trees have not been planted, helped along by birds. While the ornamental cultivars typically set very small fruit when they are fruitful, there is considerable variability in fruit size amongst the seedling offspring. And these seedling pears are quite precocious, flowering and fruiting at a very young age, adding to their invasive nature.

Ornamental pears have been targeted for legislation to eventually ban their sale and distribution. Most nurseries have already discontinued selling this species, and it is expected to be banned in the next few years. Invasive species legislation, signed by the governor, was published in March 2019 and includes several species commonly found in the landscape, including wintercreeper and Japanese barberry. Other invasive plants will be added in the future.

When it becomes time to replace your tree, there are better choices for the landscape.

Alternatives Landscape Plant Options to Callery Pear and other invasive ornamentals can be found at <https://www.extension.purdue.edu/extmedia/ID/ID-464-W.pdf>.

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## Ticks old and new that threaten the Midwest

(Elizabeth Barnes, [barne175@purdue.edu](mailto:barne175@purdue.edu))

Sitting down to relax after a long day working outside only to discover a tick dug into your skin is a unpleasant but common experience for anyone who spends time outdoors. Although most of us don't typically look too closely at them before we remove them, it might be worthwhile to do so. There are many species of tick that each have their own particular behaviors and pathogen associations.

### Common Ticks in the Midwest

Different species of ticks transmit different pathogens. It is well worthwhile to familiarize yourself with both the ticks and the symptoms of the pathogens they transmit. [There are currently three ticks of primary concern in the Midwest](#). The lone star tick (*Amblyomma americanum*) is dark brown with a white dot in the middle of its abdomen. It can transmit a range of pathogens to humans but is perhaps most infamous for being associated with a [red meat allergy that some people develop after being bitten](#). The black legged tick (*Ixodes scapularis*) is smaller than the other two common ticks and its bite is one of the most common ways that Lyme disease is spread. The American dog tick (*Dermacentor variabilis*) is commonly found on dogs but it will also feed on humans given the opportunity. It can vector several diseases but it is primarily of concern because it can spread the pathogen that causes Rocky Mountain spotted fever.

### New to North America



Asian longhorned tick is an invasive tick spreading through the East Coast. It is not in the Midwest yet but is a pest of concern.

Asian longhorned tick (*Haemaphysalis longicornis*) was first detected in North America in 2017 but is thought to have been spreading through wildlife and farm animal populations since at least the early 2010s. It isn't in the Midwest yet, but keep an eye out. They've been found in 9 states on the East Coast. These ticks feed on a many types of mammals including livestock, wildlife, pets, and humans. Female ticks can reproduce without males and can lay around 1,000-2,000 eggs in a single clutch. Currently Asian longhorned ticks in North America are not known to spread disease but in other countries they can carry pathogens like Rickettsia, Anaplasma, and Babesia.

### Prevent and Remove Ticks

**Clothes:** Wear long pants and long sleeves to prevent the ticks from reaching your skin. Tuck them in if you can.

**Treat:** Spray or treat your clothes with an insect repellent.

**Check:** When you head back indoors, check your clothes, gear, and body for ticks. Some ticks may be active even in the winter so it is worth checking for them year round.

**Removal:** [Use tweezers to gently grab the mouth of the tick](#) where it meets the skin. Pull it slowly out of the skin. **Seek medical advice if you have any concerns about a tick bite.**

### Further Information:

#### Tick INSiders

A program to map tick populations and tick borne pathogens in Indiana. Their website has information on how to join their citizen science program and general tick information.

<https://tickinsiders.org/>

#### CDC Asian Longhorned Tick Information

This page contains more details about the Asian longhorned tick. It is maintained by the CDC who is monitoring its spread and will regularly provide updates.

<https://www.cdc.gov/ticks/longhorned-tick/index.html>

Cover image: American Dog Tick by [Dann Thombs](#)

The [Indiana State Health Department](#) warning on ticks.

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## Oak Leaf Blister – No Cause for Concern

(Gail E. Ruhl, [ruhlg@purdue.edu](mailto:ruhlg@purdue.edu))

Oak leaf blister is caused by the fungus *Taphrina caerulescens*. Infections occur as buds swell and open during wet, spring

conditions. Leaf blister symptoms usually appear within several weeks following infection as 1/4-1/2 inch circular, light green bulges on the top surface of leaves. (Fig 1) From the underside, the affected areas are sunken or depressed. These distortions may cause leaf bending or curling of narrow-leaved oak species. Some insect galls may resemble symptoms of oak leaf blister at first glance. (Fig 2) Upon closer inspection, the insect gall is a solid mass of leaf tissue as opposed to the distorted leaf blister caused by *Taphrina*. As the blisters age, they become dry, brown spots; severely diseased leaves may drop prematurely. (Fig 3.) Although this disease is quite conspicuous, it does not seriously harm healthy trees and control with fungicides is not usually recommended.



Fig 1. Blister-like bulge on oak leaf caused by *Taphrina*



Fig 2. Look-alike leaf distortion on oak caused by insect gall



Fig 3. Oak leaf blister symptoms on older leaves

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