EXTENSION

NREM-5157

The Invasive Bradford Pear

April 2025

The problem

The callery pear (*Pryus calleryana*) is a medium-sized tree that was introduced to the U.S. from Asia in the early 1900s in an attempt to fight the fire blight of the common pear. It has commonly been used as an ornamental because of its showy white flowers in early spring and beautiful fall foliage. This rapidly growing tree provides shade around homes and commercial property, and birds consume the fruit. There are both thorned and thornless cultivars. The Bradford pear or Chanticleer pear are common cultivars that show resistance to disease and pests and tolerate a range of environmental conditions.

The callery (or Bradford) pear has a full, dense and pyramidal growth form with smooth gray bark. Its showy white flowers with five petals appear in early spring before the leaves emerge. The glossy leaves turn dark red in the fall, and the tree produces small green to brown fruit.

Figure 1. Callery pear are weak trees that are prone to wind and ice damage.

The seeds of callery pear and its various cultivars are easily dispersed by birds, allowing it to invade open spaces such as pastures, grassland and open woodlands. Its ability to form dense thickets results in the shading out of native species, causing a rapid change in plant and wildlife communities. This tree is especially a threat to grasslands and associated wildlife species, but it can also be a problem in forested areas. The dense structure provides roosts for gregarious blackbirds, grackles and starlings, which are problematic in urban areas because of defecation on cars and sidewalks and human health concerns. Callery pear is a weak tree and is easily damaged by ice and wind, commonly resulting in utility outages. Callery pear flowers also produce an unpleasant smell of rotting fish.

Control

Zero tolerance for callery pear is recommended. Unless completely uprooted, herbicides will be needed. Mowing or prescribed burning are not effective control methods because of resprouting. Newly established trees can be sprayed with a foliar herbicide such as triclopyr. Trees less than 6 inches in diameter at the base can be killed with a basal bark method with either a spray bottle or backpack sprayer. Spray from the base of the stem (at ground level) up to approximately 12 inches and fully coat the entire circumference of the stem with a solution of 25% triclopyr ester (approximately 60% active ingredient) and +75% crop oil. Cut stump, hack-and-squirt, and girdle-and-spray applications are effective at killing both small and large trees. Herbicide mixtures such as 50% triclopyr amine + 50% water or 10% imazapyr (53.1% active ingredient) + 90% water can be applied using all three techniques. Undiluted glyphosate can be used to treat cut stumps. It is important to target mature trees that are producing seed, which are common along field edges and fencelines. Callery pear are prolific seed producers, with

saplings producing seeds as early as three years of age, so follow-up treatments likely will be required.

Alternative plants

There are many native trees that make good alternatives to callery pear in Oklahoma. Plants such as eastern redbud (*Cercis canadensis*), American plum (*Prunus americana*), Mexican plum (*Prunus mexicana*) and Carolina buckthorn (*Frangula caroliniana*) are commercially available, beautiful and noninvasive.

What can you do?

- Remove all callery pear from your property and be vigilant in controlling new seedlings.
- If you see callery pear for sale, discuss the issue with the nursery owner.
- Talk to city representatives about controlling callery pear on city property and programs to discourage invasive plants within the city.
- Discuss invasive plants with your homeowners association and suggest removing them from common areas.

Figure 2. The callery (or Bradford) pear has a full, dense and pyramidal growth form with smooth gray bark. Its showy white flowers with five petals appear in early spring before the leaves emerge. The glossy leaves turn dark red in the fall, and the tree produces small green to brown fruit.

Figure 3. Callery pear is easiest to locate and identify in early spring, when it produces flowers before many native trees begin growing leaves

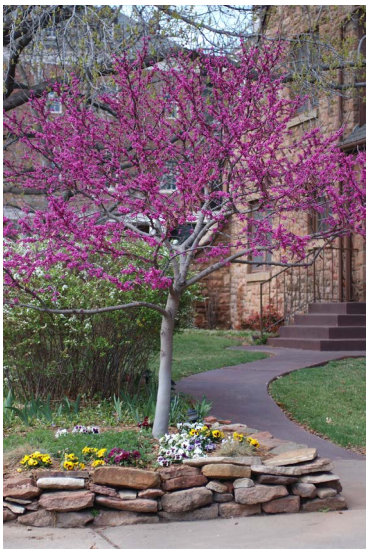

Figure 4. The Eastern Redbud is a good alternative to callery pear.

Revised from a fact sheet prepared by Dwayne Elmore

Mark Turner
Assistant Professor, Department of Natural Resource Ecology and Management

Scan the code or visit **extension.okstate.edu/fact-sheets** for more OSU Extension fact sheets.

EDUCATION EVERYWHERE FOR EVERYONE
Division of Agricultural Sciences and Natural Resources

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Director of Oklahoma Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Vice President for Agricultural Programs and has been prepared and distributed at a cost of 20 cents per copy. 04/08/2025 MR.

NREM-5157-3