



Dear Indiana Grower or Seller of Nursery Plant Stock:

December 26, 2018

Winter greetings from the Indiana Invasive Species Council (www.indianainvasivespecies.org)! The Council appreciates The Indiana Nursery and Landscape Association's leadership in phasing out Callery pear (*Pyrus calleryana*) in favor of many beautiful & beneficial alternatives (Fig. 1). Please read on for information about how you can support this effort, encouraging a market shift that simultaneously supports Indiana's environment, society, and economy.



Upper Left: Callery pear invasion (Photo: K. Kyde). Right: Voluntary Callery pear removal by an Indiana nursery (Photo: R. Haggard). Lower left: Native alternative: downy serviceberry (Photo: Missouri Botanical Garden).

All of the approximately 20 different cultivars and varieties of Callery pear are invasive, including "Bradford pear," "Aristocrat," "Autumn Blaze," "Redspire," and "Whitehouse." Callery pear has become one of Indiana's greatest invasive species headaches, spreading through thousands of acres of natural and managed lands at substantial economic and ecological cost to people and wildlife.

Callery pear was not predicted to be invasive, and in fact each cultivar is self-incompatible, and thus incapable of producing viable fruit from crosses within the same cultivar. However, different cultivars are genetically different enough to cross and produce viable seed. The numerous cultivars of Callery pear now on the market have thus removed the self-incompatibility barrier. Other traits that promote Callery pear invasiveness include rapid growth, ready dispersal of seed by birds and other animals, a persistent soil seed bank, and tolerance for a wide range of environmental conditions.

Although its showy spring flowers have contributed to its popularity, Callery pear has arguably become used to the point of cliché, creating a predictable, homogeneous look in place of what could be uniquely beautiful yards and streets. Overuse of any species raises risks of disease outbreaks. And besides the costs associated with its invasiveness, the flowers of Callery pear smell badly, the fruit is messy, and the branches of some cultivars, such as "Bradford," are prone to breakage.

Indiana's citizens and wildlife deserve better, and the nursery industry is positioned to lead a market shift towards beautiful and beneficial alternatives. Indiana natives like blackhaw and serviceberry provide comparable aesthetics without the many headaches of Callery pear (Table 1). And these species support the songbirds and butterflies that we enjoy for their beauty, pollination services, and ability to control mosquitos and ticks, among other benefits.

Table 1. Native alternatives to Callery pear

Common Name	Latin Name	Flower Color	Fall Leaf Color	Sun	Bloom Time	Attracts
Blackhaw	<i>Viburnum prunifolium</i>	White	Reddish-purple	Part shade	April-May	Birds, native bees
Downy Serviceberry	<i>Amelanchier arborea</i>	White	Yellow to red	Full sun-part shade	March-Apr.	Birds
American Plum	<i>Prunus americana</i>	White	Yellow to red	Full sun-part shade	March-Apr.	Birds

Chokeberry	<i>Aronia melanocarpa</i>	White	Purple/red	Full sun-part shade	May	Birds
Flowering dogwood	<i>Cornus florida</i>	White	Shades of red	Full sun-part shade	April-May	Birds, butterflies
Chokecherry	<i>Prunus virginiana</i>	White	Yellow to orange	Full sun-part shade	April-May	Birds, butterflies
Black gum	<i>Nyssa sylvatica</i>	Greenish white	Scarlet	Full sun-part shade	May-June	Birds
Eastern redbud	<i>Cercis canadensis</i>	Purple/pink	Pale to greenish yellow	Full sun-part shade	April	Butterflies
Yellowwood	<i>Cladrastis kentuckea</i>	White (fragrant)	Yellow	Full sun	May	
Linden tree	<i>Tilia americana</i>	Pale yellow	Pale green to pale yellow	Full sun-part shade	June	Butterflies
Green hawthorn	<i>Crataegus viridis</i>	White	Purple to red	Full sun	May	Birds, butterflies

There are many excellent resources about the drawbacks to Callery pear (Table 2). Printing and prominently displaying one or more of these resources along with recommended alternatives is a simple way for your business to help lead the way to a healthier environment and reduced costs for society, while maintaining your overall sales.

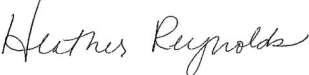
Table 2. Recommended Callery pear resources

Title (Click title to view article)	Author	Category
Invasive Plant Atlas: Callery pear	Invasive Plant Atlas	Basic facts and map
Callery pear (Not recommended)	The Morton Arboretum	Basic facts
Bradford pear (Pyrus calleryana)	Midwest Invasive Species Network	Basic facts
Invasive Plants in Pennsylvania Callery or Bradford Pear	Pennsylvania Extension	Fact sheet (pdf)
Invasive Species: Callery pear	Missouri Conservation Dept.	Fact sheet (pdf)
Callery pear (Pyrus calleryana) Homeowners Fact Sheet	NIIPP	Fact sheet (pdf)
Plant Invaders of Mid-Atlantic Natural Areas	NPS and USFWS	General InvSp guide (pdf)
Scientists thought they had created the perfect tree but it became a nightmare	The Washington Post	Further reading: Popular science article
The Beginning of a New Invasive Plant: A History of the Ornamental Callery Pear in the United States	T. M. Culley and N.A. Hardiman	Further reading: Academic article

A Terrestrial Plant Rule prohibiting the sale of ~40 damaging invasive plants is making its way through Indiana’s Natural Resource Commission rule-making process (<https://www.in.gov/nrc/2377.htm>). Given its highly invasive status in Indiana, there is a strong push to place Callery pear on the list of prohibited species. By proactively promoting a market shift to beautiful and beneficial alternatives, the nursery industry can support what’s ultimately best for Indiana’s environment, society, and economy while maintaining its economic vitality and increasing its leadership role.

We hope you will join this effort! Please drop us a line at IISC@purdue.edu to let us know what you think. With your input, we can tailor our efforts to make your leadership role easier. Are the resources provided useful? Would an attractive poster to convey this information be welcome?

Thank you for all that you do to make Indiana a beautiful state! We look forward to working with you to promote Indiana’s biodiversity, the ultimate foundation of our society’s wealth, health, and resilience.

Sincerely,


Heather Reynolds
 Chair, Indiana Invasive Species Council