

Pyrus calleryana: 'Bradford' Callery Pear¹

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Introduction

'Bradford' is the original introduction of callery pear and has an inferior branching habit when compared to other cultivars which have since been developed. It has many vertical limbs with embedded bark packed closely on the trunk and grows about 50 feet high by 20 to 30 feet wide but the crown is dense and the branches long and not tapered, making it quite susceptible to wind and ice damage and other breakage. However, it does put on a gorgeous, early spring display of pure white blossoms, and the small, red/brown fruits which follow will attract quite a number of birds who find them delicious. Fruit set may be increased by planting two or more cultivars of callery pear together. Fall color is incredible, ranging from red and orange to dark maroon.

General Information

Scientific name: *Pyrus calleryana*

Pronunciation: PIE-rus kal-ler-ee-AY-nuh

Common name(s): 'Bradford' Callery pear

Family: *Rosaceae*

USDA hardiness zones: 5A through 9A (Figure 2)

Origin: native to Korea and China

UF/IFAS Invasive Assessment Status: Invasive and not recommended except for "specified and limited" use



Figure 1. Full Form - *Pyrus calleryana*: 'Bradford' Callery pear
Credits: UF/IFAS

approved by the UF/IFAS Invasive Plant Working Group (North, Central, South)

Uses: container or planter; street without sidewalk; screen; shade; specimen; parking lot island < 100 sq ft; parking lot island 100-200 sq ft; parking lot island > 200 sq ft; sidewalk cutout (tree pit); tree lawn 3-4 feet wide; tree lawn 4-6 feet wide; tree lawn > 6 ft wide; urban tolerant; highway median

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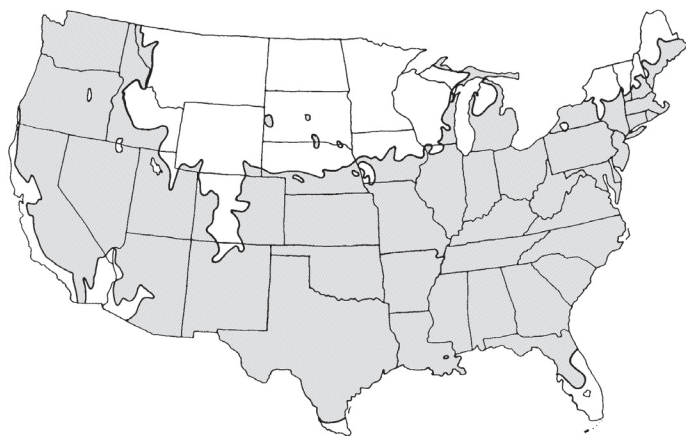


Figure 2. Range

Description

Height: 30 to 50 feet
Spread: 20 to 30 feet
Crown uniformity: symmetrical
Crown shape: oval, round
Crown density: dense
Growth rate: fast
Texture: medium

Foliage

Leaf arrangement: alternate
Leaf type: simple
Leaf margin: serrate, crenate
Leaf shape: ovate
Leaf venation: pinnate, reticulate



Figure 3. Leaf - *Pyrus calleryana*: 'Bradford' Callery pear
 Credits: UF/IFAS

Leaf type and persistence: deciduous
Leaf blade length: 1 ½ to 3 inches
Leaf color: dark green and shiny on top, paler green underneath
Fall color: yellow, red, orange, purple
Fall characteristic: showy

Flower

Flower color: white or tinged with pink
Flower characteristics: very showy; has an aroma that some find unpleasant; emerges in clusters on 3" long cymes
Flowering: spring

Fruit

Fruit shape: round
Fruit length: ½ to 1 inch
Fruit covering: dry or hard; pome
Fruit color: golden brown
Fruit characteristics: attracts birds; not showy; fruit/leaves not a litter problem



Figure 4. Flower - *Pyrus calleryana*: 'Bradford' Callery pear
 Credits: UF/IFAS

Trunk and Branches

Trunk/branches: branches droop; not showy; typically multi-trunked; may be armed with thorns when young

Bark: light brown to reddish brown and smooth, becoming grayish brown and developing shallow furrows with maturity

Pruning requirement: needed for strong structure

Breakage: susceptible to breakage

Current year twig color: brown

Current year twig thickness: thick

Wood specific gravity: unknown



Figure 5. Bark - *Pyrus calleryana*: 'Bradford' Callery pear, Gitta Hasing, UF/IFAS

Credits: Gitta Hasing, UF/IFAS

Culture

Light requirement: full sun

Soil tolerances: clay; sand; loam; alkaline; acidic; moist but well-drained

Drought tolerance: moderate

Aerosol salt tolerance: moderate

Other

Roots: not a problem

Winter interest: no

Outstanding tree: no

Ozone sensitivity: tolerant

Verticillium wilt susceptibility: resistant

Pest resistance: resistant to pests/diseases

Use and Management

The major problem with the 'Bradford' callery pear has been too many upright branches growing too closely together on the trunk. Prune the trees early in their life to space lateral branches along a central trunk. This is not easy and a skilled pruning crew is needed to build a stronger tree. Even following pruning by a skilled crew, trees often look misshapen with most of the lower foliage removed and the lower portions of the multiple trunks showing. This tree probably was not meant to be pruned, but without pruning has a short life, thus 'Bradford' pear defines a Catch-22.

Callery pear trees are shallow-rooted and will tolerate most soil types including clay and alkaline, are pest- and pollution-resistant, and tolerate soil compaction, drought and wet soil well. 'Bradford' is the most fireblight-resistant cultivar of the callery pears. Unfortunately, as 'Bradford' and some of the other cultivars approach 20 years old, they begin to fall apart in ice and snow storms due to inferior, tight branch structure. But they are certainly beautiful and grow extremely well in urban soil until then and probably will continue to be planted because of their urban toughness. As you plan downtown street tree plantings, remember that in downtown sites many other trees succumb before this one due to a variety of reasons, but the callery pears seem to hang on pretty well despite the problems with branch attachments and multiple trunks.

'Autumn Blaze' has wonderful fall color earlier than other cultivars.

Pests

Aphids cause distorted growth and deposits of honeydew.

Scales can be seen on 'Bradford' but usually they are not serious.

Several borers may attack pear. Keep trees healthy to prevent attacks.

Diseases

Slightly susceptible to fireblight when grown in the south but the damage is usually only noticed at branch tips.

'Bradford' shows the best resistance to fire blight in tests conducted in the southeast of all callery pear cultivars tested.

Tips of fire blight-infected branches appear scorched and burnt. The leaves droop, turn brown, but remain hanging on the tree. The bacteria wash down the branch and form cankers. Bark inside the canker often shreds and peels.

When a canker girdles a branch, that branch dies. The callery pears are resistant, but not immune to this disease and some cultivars are apparently more resistant than others. Prune out infected branches well below the infected area.

Reference

Koeser, A. K., Hasing, G., Friedman, M. H., and Irving, R. B. 2015. Trees: North & Central Florida. University of Florida Institute of Food and Agricultural Sciences.