

Pyrus calleryana 'Bradford' '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 (Fig. 1). It has many vertical limbs with embedded bark packed closely on the trunk and grows about 40 feet high by 30 to 45 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* 'Bradford'

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

Common name(s): 'Bradford' Callery Pear

Family: *Rosaceae*

USDA hardiness zones: 5 through 9A (Fig. 2)

Origin: not native to North America

Uses: container or above-ground planter; large parking lot islands (> 200 square feet in size); wide tree lawns (>6 feet wide); medium-sized parking lot islands (100-200 square feet in size); medium-sized tree lawns (4-6 feet wide); recommended for buffer strips around parking lots or for median strip plantings in the highway; screen; shade tree; small parking lot islands (< 100 square feet in size); narrow tree lawns

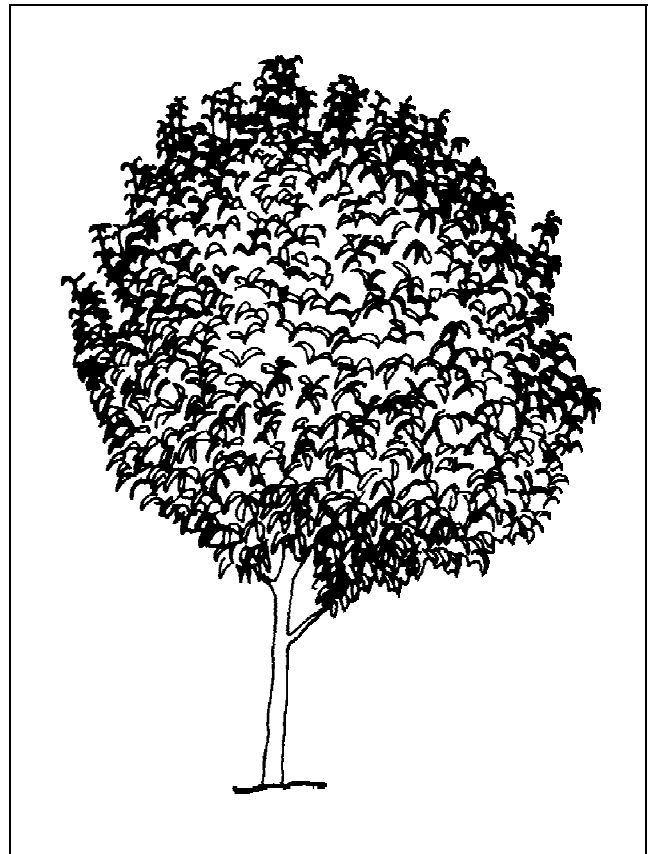


Figure 1. Young 'Bradford' Callery Pear.

(3-4 feet wide); specimen; sidewalk cutout (tree pit); residential street tree; tree has been successfully grown in urban areas where air pollution, poor drainage, compacted soil, and/or drought are common

Availability: generally available in many areas within its hardiness range

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Figure 2. Shaded area represents potential planting range.

DESCRIPTION

Height: 30 to 40 feet
Spread: 30 to 40 feet
Crown uniformity: symmetrical canopy with a regular (or smooth) outline, and individuals have more or less identical crown forms
Crown shape: oval; round
Crown density: dense
Growth rate: fast
Texture: medium

Foliage

Leaf arrangement: alternate (Fig. 3)
Leaf type: simple
Leaf margin: crenate; serrate
Leaf shape: ovate
Leaf venation: pinnate; reticulate
Leaf type and persistence: deciduous
Leaf blade length: 2 to 4 inches; less than 2 inches
Leaf color: green
Fall color: orange; purple; red; yellow
Fall characteristic: showy

Flower

Flower color: white
Flower characteristics: spring flowering; very showy

Fruit

Fruit shape: round
Fruit length: < .5 inch
Fruit covering: dry or hard
Fruit color: brown; tan
Fruit characteristics: attracts birds; attracts squirrels and other mammals; inconspicuous and not showy; no significant litter problem; persistent on the tree

Trunk and Branches

Trunk/bark/branches: bark is thin and easily damaged from mechanical impact; droop as the tree grows, and will require pruning for vehicular or pedestrian clearance beneath the canopy; routinely grown with, or trainable to be grown with, multiple trunks; not particularly showy; no thorns
Pruning requirement: requires pruning to develop strong structure

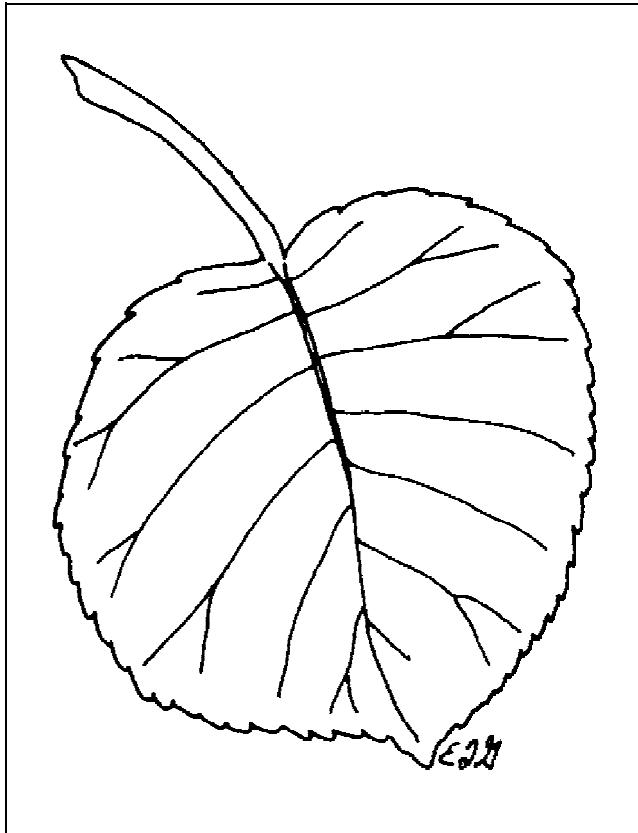


Figure 3. Foliage of 'Bradford' Callery Pear.

Breakage: susceptible to breakage either at the crotch due to poor collar formation, or the wood itself is weak and tends to break

Current year twig color: brown

Current year twig thickness: thick

Culture

Light requirement: tree grows in full sun

Soil tolerances: clay; loam; sand; acidic; occasionally wet; alkaline; well-drained

Drought tolerance: high

Aerosol salt tolerance: moderate

Soil salt tolerance: moderate

Other

Roots: surface roots are usually not a problem

Winter interest: no special winter interest

Outstanding tree: not particularly outstanding

Invasive potential: little, if any, potential at this time

Ozone sensitivity: tolerant

Verticillium wilt susceptibility: not known to be susceptible

Pest resistance: long-term health usually not affected by pests

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.