

Bradford Callery Pear (and other cultivars)

Pyrus calleryana 'Bradford'

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Summary:

Foliage: Oval glossy leathery leaves; deciduous

Height: About 35 feet

Spread: About 25 feet

Shape: Round to oval when mature; conical in youth

Main features: Bradford callery pear is a medium size fast-growing tree that has an exceptionally showy flower show (March/April), has handsome glossy leaves that turn a brilliant red-orange in fall, has a symmetrical oval to round shape with a neat branching pattern, is resistant to fire blight, and is remarkably tolerant of drought, heat, pollution, and poor soils. This clone has been planted since the early 1960s by the tens of thousands throughout the US. Starting in the late 1960s and thereafter, other clones were selected. However, for a relatively long time 'Bradford' was the dominant cultivar in the nursery and landscape trade until old 'Bradford' trees started to split apart due to poor branch attachment angles; the trees would essentially self-destruct when they got large. Thus, 'Bradford' was replaced by a few other cultivars such as Chanticleer® (which is genetically the same as 'Cleveland Select', 'Select', and 'Stone Hill'). In terms of fruit set, callery pear (*Pyrus calleryana*) cultivars are self-incompatible, i.e., a cultivar cannot successfully pollinate itself; a cultivar needs to be pollinated by another clone to set fruit. Thus, the initial populations of 'Bradford' did not set fruit (unless 'Bradford' was in the vicinity of another callery pear cultivar). The decrease in 'Bradford' use and the increase in the use of other cultivars increased the frequency of cross pollination between cultivars required for fruit set from existing 'Bradford' pears as well as the newer callery pear cultivars. Birds are fond of the small pear fruit and they have spread seeds via their droppings throughout their flight range. Callery pear now shows up in disturbed areas as well as in natural areas. In 2005 callery pear seedlings have been found in at least 26 states (Culley and Hardman, 2007). NatureServe's invasive rank for *Pyrus calleryana* (NatureServe - *Pyrus calleryana* -Bradford Pear) is Medium/Insignificant with the following description: "Current distribution and range does not appear to be highly problematic, however, there appears to be the potential for greater spread and effect." The Ecological Impact subrank is Low/Insignificant.

Plant Needs:

Zone: 5 to 8

Light: Full sun

Moisture: Moist to dry

Soil type: Most soils except wet

pH range: Acid to alkaline

Care:

No special care is needed. Pruning is recommended to thin out the canopy to reduce the potential for limbs splitting from the trunk.

Additional Information:

There are several cultivars in the trade. The number one cultivar selection criterion this species should be resistance to fire blight; the second criterion should be a branch angle that does not predispose trees to breaking apart as they age. Some of the cultivars are

Aristocrat® has better branch angles than 'Bradford'; fire blight has been a problem in the southeast US

Chanticleer® same as 'Select', 'Cleveland Select', and 'Stone Hill'; conical form that is more narrow than 'Bradford'; good resistance to fire blight

'Redspire' conical form with good form but quite susceptible to fire blight

'Sylvania' same as 'Trinity' dense round canopy and quite hardy (zone 4)

References:

Culley, T.M. and N.A. Hardman. 2007. The beginning of a new invasive plant: A history of the ornamental callery pear in the United States. *BioScience* 57: 956-964.

NatureServe - *Pyrus calleryana* - Bradford Pear (accessed in July 2010)

http://www.natureserve.org/explorer/servlet/NatureServe?sourceTemplate=tabular_report.wmt&loadTemplate=species_RptComprehensive.wmt&selectedReport=RptComprehensive.wmt&summaryView=tabular_report.wmt&elKey=142112&paging=home&save=true&startIndex=1&nextStartIndex=1&reset=false&offPageSelectedElKey=142112&offPageSelectedElType=species&offPageYesNo=true&post_processes=&radiobutton=radiobutton&selectedIndexes=142112