

'Bartlett' Pear

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'Bartlett' is the most important pear cultivar in the world. It accounts for 75 and 85% of the pear trees growing in the Western and Eastern United States, respectively (1,9). And in Italy, the country with the highest production of pears, 'Bartlett' is second only to 'Passe Crassane' in percent of total output (2).

Hedrick (3) said of 'Bartlett,' "As with the leading variety of any fruit, the . . . meritorious character of this one is its great adaptability to different climates, soils, and conditions."

In addition to its wide range of adaptation, 'Bartlett' has several other outstanding characteristics: It starts to bear relatively early, is productive, and can be grown successfully in either a standard or high-density orchard system (7,9).

While there are other cultivars that are considered superior to 'Bartlett' for eating fresh, 'Bartlett' is generally considered the standard of excellence for canning. The pear canning industry in the U.S. is based almost exclusively on 'Bartlett,' with nearly 2/3 of the 'Bartlett' crop being used for this purpose (9).

'Bartlett' is one of the few pear cultivars whose fruit contains a particularly high concentration of ethyl and methyl decadienoate esters—high-impact flavor compounds responsible for 'Bartlett's' unique flavor (6).

Like the world's most important apple cultivars, 'Bartlett' originated as a chance seedling. According to Hedrick (3) this seedling was found "... by a Mr. Stair, a schoolmaster at Aldermaston, Berkshire, England. From him it was acquired by a Mr. Williams, a nurseryman at Turnham Green, Middlesex, and as it was propagated and distributed by him it became known by his name, although

it is still known as Stair's pear at Aldermaston. It was brought to [the United States] in 1797 or 1799 by James Carter of Boston for Thomas Brewer who planted the variety in his grounds at Roxbury, Massachusetts, under the name of Williams' Bon Chretien, by which name it was then and still is known both in England and France. In 1817, Enoch Bartlett, Dorchester, Massachusetts, became possessed of the Brewer estate, and not knowing its true name allowed the pear to go out under his own. Henceforth, it was known in America as Bartlett."

'Bartlett' is commonly referred to as a summer pear because it is harvested from early July in the valleys of central California to late August and September in more northerly areas. The ripe fruit of 'Bartlett' usually has a pyriform shape and yellow skin with an occasional crimson blush. Its flesh is creamy white, melting, and juicy. The fruit has a storage life of 70-85 days in common cold storage.

Although 'Bartlett' has many outstanding traits, it is not without faults. Its biggest weakness is probably its susceptibility to fire blight caused by the bacterium *Erwinia amylovora* (Burr.) Winsl. et al. Another major weakness of 'Bartlett' is the tendency of its fruit to soften and ripen prematurely when exposed to cool night temperatures during the month before harvest (5).

'Bartlett' has been used extensively as a parent in pear breeding programs, and its named offspring include 'Gorham,' 'Aurora,' 'Highland,' 'Harvest Queen,' and 'Harrow Delight.' Many of 'Bartlett's' offspring resemble it in appearance, size, shape, and productivity, but very few produce fruit with the characteristic 'Bartlett' flavor

(4). Various fruit color and russet mutants of 'Bartlett' have been recognized and propagated. Red-fruited mutants of 'Bartlett' include 'Cardinal Red', 'Sensation', and 'Rosired'.

Despite the fact that 'Bartlett' was discovered almost 200 years ago, none of its offspring or sports seem destined to replace it as the world's preeminent pear cultivar.

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Fruit Varieties Journal 40(2):39-41 1986

Red Raspberry Yield Trials In Southwestern and Western Montana

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Abstract

Seven red raspberry cultivars were evaluated for yield potential at Bozeman and Corvallis, Montana from 1980-1982. All cultivar yields were markedly greater at Corvallis than at Bozeman. 'Killarney' and 'Boyne' were the most stable high yielding cultivars at Corvallis followed by 'Gatineau' and 'Canby'. 'Boyne' was the most stable high yielding cultivar at Bozeman. 'Latham' was consistently low yielding at both locations.

Introduction

The red raspberry (*Rubus idaeus* L.) is well adapted to most areas in Montana. It bears fruit early in the season and is among the hardiest of the cane fruits. Some cultivars can withstand -35 to -40°C with only minor tip die-back. However, injury may occur when root tissues reach -21 to -22.8°C (Shoemaker, 1978). Total plant death is rare, especially when winter protection is provided. Mulching or covering canes may reduce winter injury to red raspberries.

'Latham' has long been a standard red raspberry for regions with severe winter conditions. 'Canby' and 'Taylor' have also been popular. Other cultivars are recommended for cold areas, but have not been widely evaluated in Montana. The objective of this study was to evaluate the yield of several newer cultivars with 'Latham', 'Canby', and 'Taylor' in the Bitterroot and Gallatin Valleys of Montana.

Materials and Methods

Plots were established in April 1979 at the Western Agricultural Research Center, Corvallis, Montana, and the Horticultural Research Farm, Bozeman, Montana. A randomized complete block design with four replications was used at both locations. Rows were 2.1 m apart with plants spaced 0.6 m apart in the row. Raspberries were grown on a three-wire trellis at Corvallis and in a hedge system at

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