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Surprise! It's Crandall

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From May to August 1995, 116 *Ribes* cultivars and selections in the collection at the U. S. Department of Agriculture, Agriculture Research Service, National Clonal Germplasm Repository, were evaluated for flowering and fruiting characteristics. One black fruited, late-ripening currant cultivar, *R. odoratum* Wendl. cv. Crandall, was exceptional for berry size and quality. 'Crandall' is only slightly known in the U.S., and is unknown to European gardens and markets. We are writing this article to emphasize some of 'Crandall's qualities in contrast with the European and North American black currants, *R. nigrum* cvs. 'Ben Lomond' and 'Crusader.' 'Ben Lomond' was released in 1975 by the Scottish Crop Research Institute and is a prominent cultivar grown throughout Europe. 'Crusader' was released in 1948 from the Department of Agriculture, Ontario, Canada, for white pine blister rust resistance.

'Crandall' originated from a wild seedling discovered by R. W. Crandall of Newton, Kansas. It was introduced in 1888 by Frank Ford & Sons, Ravenna, Ohio and recommended by the American Pomological Society in 1899 (2). 'Crandall' has a poor reputation. Hedrick (2) describes it as having tough skin, unpleasant flavor, and uneven ripening. Our assessment of 'Crandall' is in sharp contrast. The berry skin of 'Crandall' does not seem tougher than that of *R. nigrum* L. cultivars and the flavor is sweet and pleasant. The fruit ripens consistently enough on the plants in the Repository collection but may be too droopy for mechanical harvesting.

Ribes odoratum, the species from which 'Crandall' was selected, is taxonomically placed in a section called Symphocalyx, the golden currants. A second species of this section is *R. aureum* Pursh. Both *R. odoratum* and *R. aureum* have bright yellow fragrant flowers with a tubular receptacle which ranges up to 10 mm. The petals are usually red-tipped in mature flowers. The shrubs are erect to 2.5 m high with many suckers growing from the crown. While *R. odoratum* is native east of the Rocky Mountains, *R. aureum* is native to the west (3). These species are cultivated throughout North America as ornamental flowering shrubs. Although the shrub has a somewhat undesirable, stiff, upright growth habit during the summer, the yellow flowers which bloom in mid-April, and the yellow and red fall foliage provide added landscaping value. *Ribes odora-*

Table 1. Flower and fruit descriptors for *R. odoratum* Wendl, cv. Crandall as compared to *R. nigrum* L. cvs. Ben Lomond and Crusader.

Cultivar	Flower season	Plant habit[z]	Vigor[y]	Harvest date	Yield[x]	Fruit size g/berry[w]
Crandall	mid-season	4	9	very late, July 28	6	2.17c
Crusader	early	8	7	early, June 29	4	0.69a
Ben Lomond	late	7	8	late, July 19	6	1.36b

[z]Plant habit was rated on a scale from 1, spreading, to 9, very erect.
[y]Vigor was rated on a scale from 1, weak, to 9, very green, healthy rapidly growing plants.
[x]Yield was rated on a scale from 1, poor, to 9, excellent production.
[w]These figures display the average weight of 3 replicates of 100 berries. Means were separated using LSD at $p < 0.01$.

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Table 2. Disease effects on *R. odoratum* Wendl, cv. Crandall and *R. nigrum* L. cvs. Ben Lomond and Crusader in Corvallis, Ore., in 1995. Spring frost/ *Botrytis* was evaluated May 10-15; powdery mildew, August 8; leaf spot, August 15; white pine blister rust, September 18.

Cultivar	Spring frost/Botrytis[z]	Powdery mildew	Leaf spot	White pine blister rust
Crandall	5	1	1	1
Crusader	2	3	4	1
Ben Lomond	2	2	2	5

[z]These diseases were rated on a scale of 1, no symptoms, to 9, severe symptoms.

tum is used as a rootstock for grafting other cultivated currants and gooseberries (1).

Under Corvallis, Ore. conditions 'Crandall' is a vigorous plant growing more than 2 m in a season which is slightly more than 'Ben Lomond' and much more than 'Crusader.' In cooler, drier environments, 'Crandall' may grow ≤1.5 m per season. 'Crandall' fruits have a smooth bluish-black skin, are about twice as large as those of 'Ben Lomond,' and three times as large as those of 'Crusader' (Table 1). The calyx is persistent in each of the three cultivars. 'Crandall' flesh is whitish-yellow and not very juicy while the *R. nigrum* berries have juicy, darker flesh. 'Crandall' berries are sweeter and the seeds are not as noticeable as those of *R. nigrum* cultivars. 'Crandall' has typically less than 10 seeds per berry while *R. nigrum* cultivars have 10 to 30. 'Crandall' fruits are born in loose, short clusters with 2 to 6 berries per inflorescence, i.e., strig, whereas 'Ben Lomond' has from 4 to 8 and 'Crusader' has 5 to 10. 'Crandall' does not have the heavy odor of *R. nigrum* cultivars.

'Crandall' plants are resistant to white pine blister rust, *Cronartium ribicola* Fisher, leaf spot, *Drepanopeziza ribis* (Kleb.) Hohn, and American powdery mildew, *Sphaerotheca mors-uvae* (Schwein.) Berk. & Curt., even during years of heavy infestation on other cultivars (Table 2). In Poland 'Ben Lomond' shows a rating of 4 to 5 for powdery mildew and white pine blister rust in most years (Pluta, unpublished).

Unfortunately, spring hosts can damage 'Crandall' blossoms and stems during bloom, after which gray mold, *Botrytis cinerea* Pers., can enter and cause stem dieback (Table 2). Both *R. aureurn* and *R. odoratum,* including 'Crandall' are susceptible to spring frost and *Botrytis* damage. During June and July 1995, 'Crandall' suckers grew rapidly to replace canes damaged by spring host and *Botrytis*. The other two black currants were not injured as severely (Table 2).

Because the fruits are so large, and the plant is vigorous and healthy, 'Crandall' would be a good cultivar for landscaping, backyard gardening, or small commercial operations such as pick-your-own. This late ripening cultivar could extend the European black currant production season. Hedrick (2) mentions that 'Crandall' survives in regions such as the midwest of the U.S. which have hot dry summers.

Some European markets are expanding the production of black currants for fresh sales. 'Crandall' may have direct marketing value for fresh production, or for processing as in jams or jelly. This cultivar will be examined for breeding potential in the Polish *Ribes* program.

Literature Cited

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