

PROGRESS REPORT 2006-2007

Evaluation of Ornamental Tree Fruit for Disease Resistance in a Maritime Climate

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In 2006 and 2007 data was collected on trees in the established crabapple trial plot, including bloom dates in spring and a rating in late fall of scab, mildew, and general tree health. The ornamental crabapple trial was extended in 2003-2005 to include ornamental tree fruit such as cherry, plum, peach and other *Prunus* spp. and ornamental pears as well as new ornamental crabapples. Bloom ratings were collected March-May 2007. Overall ornamental quality was also rated. Photographs were taken to document the appearance and qualities of promising varieties for use in publications.

Two ornamental plums, **Krauter Vesuvius** and **Newport**, are very attractive ornamental trees from spring to fall. **Krauter Vesuvius** has an upright spreading growth habit and often retains its leaves until early winter. **Newport** is more compact and blooms about 2 weeks later. Both have profuse, attractive pink flowers in spring and dark purple leaves that remain on the trees all summer and fall.

Ornamental cherries provide an extended bloom sequence from mid-March to mid-May. **Snow Fountain** and **Yoshino** are the earliest, closely followed by **Snow Goose**, **Akebono**, and **Mount Fuji (Shirotae)**. **Amanogawa**, **Kanzan (Kwanzan)**, and **Royal Burgundy** fill the mid season. **Royal Burgundy** carries over somewhat into the late season with **Shirofugen** and **Shogetsu**, which is the last to shed its blooms. **Snow Fountain** has an attractive weeping growth habit, while **Snow Goose** and **Amanogawa** are narrowly upright. **Kanzan** and **Royal Burgundy** are also upright but not as narrow. **Snow Fountain** appeared to be somewhat affected by disease damage to leaves and small branches in 2006, but the other trees had healthy leaves remaining on the trees until late fall.

New crabapples added to the trial in 2004 include **Firebird**, **Holiday Gold**, **May's Delight**, **Orange Crush**, **Prairie Rose**, **Pumpkin Pie**, **Royal Raindrops**, **Scarlet Brandywine**, and **Spring Sensation**. All bloomed fully in 2006-2007 and are well established.

Several pink or red flowering varieties stand out, and most also have colorful red or bronze foliage. So far, most trees have not shown signs of susceptibility to either apple scab or powdery mildew.

- **Orange Crush** has a broad spreading habit, branches overloaded with dark magenta buds; the trees are very colorful even before flowers begin to open. In full bloom the mass of vivid pinkish red single flowers is stunning. After bloom, the purple-bronze leaves and semi-weeping form retain ornamental character.
- **Royal Raindrops** has reddish purple leaves and magenta pink single blossoms. The bloom color is strong and ornamental appearance is very good. Its habit is more upright-spreading than **Orange Crush**.
- **Scarlet Brandywine** has large cherry-like buds that are ornamental before the flowers open. The bright pink flowers are fully double like clusters of miniature roses. The leaves are bronze turning to dark green. Growth habit is upright spreading. Leaves show scab lesions and shed heavily by late summer–early fall, definitely a flaw in its ornamental use.
- The aptly named **Prairie Rose** displays soft pink fully double flowers against green leaves. It is the latest blooming of all the current crabapple selections, putting on its show in late May or even early June, after other crabapples are long past blooming. Tree habit is upright to upright spreading, with good resistance to scab infection, and it produces no fruit.

Other pink flowered crabapple varieties are **Candymint Sargent**, **Louisa**, **Pink Princess**, **Prairifire**, **Prairie Maid** and **Royal Fountain**. **Louisa** has a broad weeping growth habit, soft rose-pink flowers with green leaves, and very good scab resistance. The yellow berries are inconspicuous but the weeping branches give the trees a very attractive winter appearance. When grafted high at 4' on the rootstock, trees produce a very attractive ornamental effect. **Royal Fountain** is a small tree, not higher than 6-8 feet, with a strongly weeping habit, very showy magenta-pink flowers, dark bronze-green leaves, and dark red fruit. The bark is reddish in color and adds to the ornamental quality even after the fruit has fallen in winter. **Prairie Maid** has pink flowers edged with darker pink, and bronze-tinged leaves, with very good scab resistance and a broad spreading, vigorous habit. **Pink Princess** has colorful foliage and small but very profuse light pink flowers; its low spreading habit makes an excellent specimen tree. **Candymint Sargent** is also fairly resistant to scab, and its broad spreading trees are rather larger than **Pink Princess**. **Prairifire** is known for its intense deep pink color, though it is somewhat less resistant to scab.

Three white flowered crabapples planted in 2004 are promising:

- **Holiday Gold** and **Pumpkin Pie** both produce a profuse display of white single flowers, yielding very abundant small yellow fruit persistent into the fall and early winter. Trees have green leaves and an upright spreading growth habit. Leaves of **Pumpkin Pie** are frequently lobed especially on young growth, which adds ornamental appeal during the summer. Both are very resistant to scab.
- **Firebird** has white single flowers, green leaves, and is loaded with small orange red fruit that color early and remain brightly ornamental well into the winter. Trees in the test have been grafted at 4' high to resemble a rose standard, which makes a nice specimen or entryway tree. Growth habit is dense and compact, and trees show good resistance to scab infection.
- Trees of **Lollipop** included in the trial are also grafted at 4' high, a treatment which is well suited to their naturally compact mini dwarf growth habit. These trees are excellent for planting in patio pots also.

White flowering crabapples highly rated include **Bob White**, **Evereste**, **Golden Raindrops**, **Puget Spice (WSU AxP)**, **Red Jewel**, **Silver Moon**, **Sugar Tyme**, and **White Angel**. All show excellent overall ornamental quality and high disease resistance. **Lancelot** is a variety particularly suited for urban settings, with compact upright habit, reaching 8 to 10 feet high at most; trees show very good disease resistance.