

# Growing Fruit in Alaska

Harvesting a ripe, juicy apple from your very own tree can be very satisfying. Many people worry that they cannot grow their own fruit in Alaska because of the cold winters, but fruit trees can be successfully grown here. In fact, in the early 1900s, fruits were already being commercially grown in Haines. Since that time, growers have established several dozen apple varieties and several cherry, plum and apricot varieties in locations from Ketchikan to Fairbanks and west to Kodiak. However, successful growing of fruit trees depends on a favorable planting site and proper care throughout the year.

Alaska has long, cold winters, short and often cloudy summers, wind and other conditions unique to northern latitudes. The home gardener or experienced farmer who hopes to grow anything other than a few hardy crabapples will need to consider factors such as the local microclimate, slope, soils, aspect and the amount of sunlight the site receives. Flower pollination requirements and protection from sunscald, moose, deer, hares and rodents also need to be considered.

## Choosing

Fruit trees in Alaska must be able to survive the coldest temperatures of the year without suffering freeze damage. To survive cold temperatures, trees “harden off” their growth to prepare for winter. Hardening off involves deactivating the tree’s growing points (meristems). Some varieties cannot accomplish this quickly enough in Alaska, partly because of brief autumns.

Freeze-and-thaw cycles also reduce hardiness by allowing trees to reactivate meristems after thaws and prior to cold temperatures, and this affects hardiness.

These cycles are most likely to occur in late winter or early spring.

To help you avoid selecting plants that are not suited



to wintertime temperatures, the United States Department of Agriculture (USDA) has assigned zone ratings to regions of Alaska based on average historical extreme low temperatures (Figure 1). This rating system is referred to as the USDA plant hardiness map. Most of Alaska north of the Alaska Range is considered hardiness Zone 1. Zone 2 occurs in favored locations with 600- to 1,200-foot elevations around Fairbanks, parts of the Matanuska-Susitna Valley and the upper hillside areas of Anchorage.

Hardiness zones along coastal areas from Nome to Bethel range from 3 to 4, with warmer locales occurring farther south. Much of Anchorage, the Kenai Peninsula and lower parts of the Mat-Su Valley also range from 3 to 4. Zones 4 to 6 can be found around Seward, Homer, Valdez and the Alaska Peninsula. Kodiak and parts of Southeast are predominately Zones 6 and 7, with some areas south of Juneau approaching Zone 8.

While the USDA plant hardiness zone map is considered the best means of selecting which varieties of trees will survive cold temperatures across Alaska, it is important to note that sometimes trees can survive

in a climatic zone colder than the one they are rated for. Such a rare occurrence can only occur where there is good soil drainage, full sunlight, adequate water, proper nutrition, mulching and wind protection.

## S S

Although it is important to plant the tree where the it will provide maximum benefit to its owner, the main consideration should be finding a spot where the tree will be healthy and have room to grow.

A south-facing gentle slope is ideal. An east-facing exposure is better than west, and a northern exposure is the poorest. Avoid low areas where cold air or water accumulate. Choose a planting site where there is adequate wind protection. The south side of a building is preferred, especially if it reflects sunlight.

Soil drainage is another important consideration.

Fruit trees will not tolerate “wet feet” caused by poorly drained soil. Saturated conditions caused by poorly drained soil will prevent oxygen from reaching tree roots. To assess soil drainage, try a soil percolation test. A soil percolation test has four steps:

**S 1:** Dig a hole 18 inches to 3 feet deep that is 6 inches to 12 inches wide.

**S 2:** Fill the hole with water.

**S 3:** Give it some time (usually a couple of hours) and let the water drain out of the hole.

**S 4:** Fill the hole with water again and measure the rate that the water drains (percolates) out of the hole. The ideal rate is 1 to 2 inches of drainage per hour. If after a few hours none of the water has drained away, look for a different place to plant your tree.

grow in the upper 4 to 18 inches of soil around the tree, and roots can extend far beyond the drip line. Do not crowd trees (Table 1). Avoid areas that have traffic from heavy equipment or vehicles to prevent soil compaction and encroachment over the rooting zone of a tree. It is advisable to plant trees at least 15 to 30 feet away from power lines, power poles, buildings or other structures.

Table 1. Distance Recommended Between Fruit Trees

Type of tree	Distance between trees (feet)	Estimated height at maturity (feet)
Apricot	20	20
Apple, standard	30	20-25
Apple, semidwarf	15	12-15
Apple, dwarf	10	10
Cherry, standard sweet	20	







crossing. The tree is very hard and productive. Fruit is 6 to 7 centimeters long, yellow green in color with red blush. Flesh is white with a pleasant tart taste. Makes excellent preserves. Generally, stores longer and considered a better quality fruit than Norland. Ripens late August to September in Southcentral.

☒<sup>+</sup> Hardy in Zones 2 and 3, a popular variety in Southcentral and Southeast Alaska. Tree is somewhat upright in form, bears very young, is an excellent pollinizer and is productive. Fruit or skin of fruit is clear, white to pale yellow. Flesh is white and of good flavor for eating; excellent for culinary uses. Fruit is round, 5 to 8 centimeters, best picked when slightly immature. It keeps for only a few weeks, even under refrigeration. Ripens early to mid-September in Southcentral.

L (I ☒<sup>+</sup> ) Tree is hardy in Zones 2 and 3. Very similar to Yellow Transparent except that it ripens a few days later, is slightly

spreading, productive, moderately precocious, some-



**P** The fruit ripens fairly early and shows promise of being fairly hardy, but its pollen is sterile and will not pollinize other plums.

**S** A Minnesota plum whose fruit quality is worthy of the name, it is the pollinizer of choice for Toka. Superior is not as hardy as the above and is best for warmer and more sheltered locations.

Other Japanese-American hybrid plums that show promise for Southcentral and Southeast Alaska include Crescent, Alderman and Waneta.

Mount Royal, of the European plums, produces ripe fruit in Juneau. This Canadian cultivar is self-fertile and may be tried on an experimental basis in Southcentral Alaska.

Plums have proven difficult to pollinate in Alaska. Use at least two different Japanese-American hybrid



## **R**

USDA Plant Hardiness Zone Map, 2012. Agricultural Research Service, U.S. Department of Agriculture. Accessed from <http://planthardiness.ars.usda.gov>

## **G**

**C** — A region of rapidly dividing cells beneath the bark which produce xylem cells (woody tissue) and phloem cells (food conducting tissue).

## **C**

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