

Almond

Prunus dulcis (Rosaceae)

Fast facts: Acres in Washington: less than 10
Number of Growers: less than 20
Percent of U.S. Acreage: less than 1 %

Description Of Crop:

The almond tree belongs to the same group of plants as the rose, plum, cherry and peach trees. It is a small deciduous tree that grows 20 to 30 feet but under cultivation it is generally kept at 20 feet through pruning. The almond tree has an average life span of 20-25 years and does not bear fruit during the first 3-4 years after planting. It does not lend itself to propagation from suckers or from cuttings. The young shoots are green at first and become grey in their second year. Almond is the name of the edible and widely cultivated seed of this tree. Although popularly referred to as a nut, the almond seed or fruit is botanically not a true nut, but a drupe. Almond trees are alternate bearing so that a large crop one year is followed by a lighter crop the following year. Almonds do not do well in areas that receives winter frosts. However, a grower in Chelan has planted Nonpareil varieties that have survived -10 degrees this last year. From February onward, orchards should be frost free and have minimal rains for blossoms to flourish so that bees can pollinate them.

The nuts of the almond tree are enclosed in a fleshy husk which becomes dry and fibrous and splits open allowing the nuts to drop out or be easily separated at maturity. The outer covering has a leathery grey-green coating called the hull. Inside the hull is the hard shell that encloses the oblong, flattened, edible seed. The shell of the almond is yellowish-buff color and has a flattened oval shape. Usually there is only one seed but occasionally there are two. Almond trees blossom in the spring and the fruits are harvested in the fall. Growers depend on honeybees to pollinate their trees usually allowing two hives per acre of trees. Many growers

plant multiple varieties of almond trees to capitalize on both cross pollination and bees to fertilize the almond blossoms. The nuts are harvested with mechanical tree shakers which shake the nuts off of the tree. The nuts are left to dry and are then transported to be hulled and shelled. The almonds are then sorted according to size and quality.

There are two principle forms of almonds: sweet almonds and bitter almonds. In Washington State we grow the sweet almonds. Sweet almonds have white flowers and contain a fixed oil and emulsion. Sweet almond is earliest to flower and is valued as a food and for confectionary purposes as well as being used in medicines. Oil from the sweet almond is often used by massage therapists and in aromatherapy. It is also used as a substitute for olive oil, being a mild, lightweight oil, rich in unsaturated fats and essential fatty acids. The nuts are high in protein, calcium, fiber, and have no cholesterol.

In Washington, almonds are used for personal use or fresh local markets. There is no commercial production. While the almond is often eaten on its own, raw or toasted it is also a component of various dishes. Sweet almonds are used in marzipan, nougats, Macaroons, baklava and other desserts.

Key Pests:

Insects are the main pest in almonds and include: the peach wig borer, the San Jose scale and the two-spotted mite. Diseases include brown rot and almond scab. Mice are sometimes a problem on young seedlings.

Key

Pesticides:

Insects can be controlled with beneficial insects such as ladybird beetles. Growers can use Sevin for chemical control. Brown rot and almond scab are controlled with wettable sulfur or Captan. Mice are controlled with baits and traps.

**Critical Pest
Control**

Issues:

It is important for growers to use care when spraying so that bees and other beneficial insects are not harmed. Currently, growers are looking at higher bee costs and lower colony strength. Growers should choose disease resistant varieties when possible such as Nonpareil. When grown for nuts, care must be taken to select cultivars that are compatible for pollination purposes even if they are self-pollinators. Growers can use a box screen around new seedlings to keep mice from eating them.

Expert Contacts:

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**Location Of
Production:**

Chelan, Clark, and Okanogan counties.



Almond Production in Washington State

Almond



<http://tdaait.files>