

Q: Are there dwarf avocados that are suitable for growing in East Contra Costa? Do I need to plant two to get fruit? How fussy are they to grow? Can I start them from seed?

A: Growing avocados in this area is a bit risky, given the temperature variations we experience. Avocados, (*Persea Americana*), are tropical evergreen trees from the Lauraceae Family that can reach 60' in height with dark green leaves up to 10" long and 3" wide. Avocados originated in Central America and southern Mexico, where archeological evidence indicates that they have been cultivated for over 9000 years. Avocados prefer very specific climatic conditions with high humidity and steady temperatures. They will not produce if it is too cold, too dry, too hot or too windy. If you have a southfacing exposure with excellent drainage, protected from wind with good water availability, planting a couple of trees can be a fun experiment. Three types of avocados have been identified, all with distinct climatic requirements. The Mexican type is the one best suited for cooler and drier locations, with relatively small fruits covered with thin smooth black skin and containing a high oil content.

The fruit of an avocado is called a berry, and they are somewhat unusual fruits. They are oily, not sweet, and do not ripen on the tree. They are ripe when the seed coat inside the berry turns brown and papery. Avocados ripen when they are exposed to ethylene, a naturally occurring chemical produced by all parts of plants, important for flower opening, fruit ripening and leaf abscising. At home, avocados can be ripened by placing in a paper bag with ethylene releasing ripe apple or other fruit. It isn't hard to justify eating avocados, but in addition to a great taste, they are good sources of B vitamins, and contain 60% more potassium than bananas.

Pollination is a complicated story. Avocados have flowers that open as female blossoms on day one, but on day two shed pollen as male flowers. This means that the flowers are not self-fertile, but need pollinators to bring pollen from other flowers. Avocados have been categorized as A or B trees, with slightly different stages of flower shifting. You need to plant one A tree and one B tree for good pollination, and hope you have bees, wasps, hummingbirds or flies nearby. Some cultivars are described as self-fertile, but research has shown that successful pollination increases by as much as 50% when other cultivars are planted close by.

One of the best sites for information on avocado varieties is from University of California Riverside at <http://www.ucavo.ucr.edu/>. For small trees, look for 'Gwen'. She is an 'A' tree, but will not tolerate temperatures below 30F; Wertz, 'A', is also available, and will take temperatures down to 25F. For a 'B' tree, consider 'Zutano'. She gets larger, but can be pruned. She tolerates temperatures as low as 25F.

If you have started an avocado from seed, you may want to graft a good fruiting variety onto the seed rootstock. This handout gives good instructions on how to successfully accomplish grafting; <http://homeorchard.ucdavis.edu/8001.pdf>