

JUST FRUITS

AND EXOTICS

KIWI

INTRODUCTION

Kiwifruit, which has replaced the old English name of 'Chinese gooseberry', are native to the mountains and hills of southwestern China where they grow wild in trees and on bushes. Commercial plantings were made in New Zealand about 1930 and have become widespread over the last 20-30 years. There are over 50 species in the genus *Actinidia* to which the kiwifruit belongs. All are long-lived perennial vines or creepers. The plants are dioecious which means that male and female flowers are found on different plants. Thus, one male plant is needed for each 3-4 female plants for pollination. Male plants do not produce fruit. Fruit range from round to oblong in shape and from smooth-skinned to hairy. Flesh color may be green, orange, yellow or red. *A. deliciosa* or fuzzy kiwi are what most people are familiar with. Hayward is the most popular variety and is usually the one found in fruit markets. Hayward has a high winter chilling of 600 to 800 hours of chilling making it an unreliable fruiter in Zones 8b and 9 but there are varieties available that work in our area (see variety list on last page). *A. arguta* or hardy kiwi are more cold hardy than the fuzzy kiwifruit. Fruit is about half the size of *A. deliciosa*. The skin of *A. arguta* is smooth and edible. Fruit are greenish-yellow in color and acidic until ripe. When ripe they are very sweet and juicy. The flavor is considered better than that of the fuzzy kiwifruit. Many varieties of *A. arguta* have been developed for Zones 8b-9 (see variety list on last page).

PLANTING + CULTURE

SITE SELECTION AND PLANTING

Well-drained soil is a must for a kiwi. Water the plants adequately, but not excessively. Select a planting site that has good air drainage, and ...

PLANTING + CULTURE

...continued

one that is protected from high winds and is not frost prone. Avoid heavy clay soils. Plants do best when the soil pH is around 6.5. Set plants 15-18 feet apart in the row and rows 20 foot apart. Dig a planting hole approximately three times the width of the pot and at the same depth as the root ball. Set that soil aside and mix it 50/50 with either aged mushroom compost, aged manure, or rotted pine bark & aged manure/compost. Remove the plant from the pot and place in the planting hole. Kiwi roots are easily bruised so don't roughen the root ball. To avoid burying too deep, make sure plant is positioned with the top most roots at the soil line. Fill the planting hole with the mix of soil and organic matter; gently tamp it in. Water thoroughly to settle the roots and eliminate air pockets. Do NOT put fertilizer in the planting hole. Only apply fertilizer if it is the correct time of year (see Fertilization section below). Apply mulch 3 feet out from plant to control weeds and pull mulch a couple of inches away from the trunk for good air circulation.

DISEASES + PESTS

Phytophthora crown and root rot is one of the more serious diseases of hardy kiwi. It causes weak plant growth and the development of small yellow leaves. Terminal growth may be stunted or die back. Plants often collapse and die during hot weather. This disease occurs on heavy wet clay soils and these soil types should be avoided when planting. Over irrigation can also lead to Phytophthora root rot. Hardy kiwi plants are also damaged by root knot nematodes. Two-spot spider mites can build up on plants during hot, dry weather, particularly on greenhouse grown plants and occasionally outside. Japanese beetles will do some leaf feeding. There are several reports of cats digging up the roots and clawing the plants and foliage. Hardware-cloth or chicken wire trunk protectors are recommended for this problem.

FERTILIZATION

The type of fertilizer you choose may be chemical or organic. Make sure that the fertilizer contains iron, zinc, manganese, magnesium, molybdenum, copper and boron. These minor elements are very important to plants and most soils are low in these elements. Application rates vary according to age of plant. See chart below:

Starter Fertilizer & Soil (Apply at Planting)	Fertilizer to Maintain (Apply Early March, Late May, & Late July)
Espoma Bio-tone® Starter Plus Mix Mushroom Compost in Soil	Espoma Tree-tone®

Notes:

- Follow Instructions on Bag for how much to apply each time.
- Months to Fertilize vary based on your zone. Fertilize 3 times per year. We recommend the 1st fertilization starting after the last Freeze of the winter (Late February/Early March in zone 8) & the last Fertilization being no later than August or even June/July in some of the colder zones 7 & below.)
- Fertilizing too late in the year in colder climates will promote new growth, which will be subject to freeze damage.

See our “Planting a Tree Correctly” Guide & Espoma Bio-tone® and Tree-tone® Fact Sheets on our website for more info.

TRELLIS + TRAINING

Find detailed instructions on building a trellis and training the vines on our website: justfruitsanexotics.com

PRUNING + CARE

Fruit is produced on new shoots developing from the previous year’s growth. In Year 3, canes produced the previous year should be pruned to leave approximately 6 to 8 buds in January or February. Tee Bar Trellis with dead men 20 ft. Tee Bar Trellis with dead men 20 ft. Single Wire Trellis with dead men 20 ft. These canes will produce several shoots that will fruit during the following summer. These new shoots will be cut back to 6 buds the next winter, forming the first fruiting spurs. Depending upon the growth rate of the plants, spurs will need to be thinned in Year 5 or 6 after planting. During the winter pruning, remove every other shoot, aiming for a fruiting spur every 6 in. on each arm. Choose spurs on the top of the vine, if possible. Allow a few extra shoots to grow from the arms to form replacement spurs as the vine ages.

PRUNING MALE PLANTS

Since male plants do not produce fruit they can be particularly vigorous. These plants are pruned immediately after flowering and the flowering shoots are cut back to vigorous new growth closer to the leader. Male plants are not pruned during the dormant season so that maximum flowering is achieved.

WATER

Irrigation is important. Lack of water will reduce fruit size, reduce flower numbers, and induce early fruit drop. Drought will also induce leaf drop and early fruit ripening which leads to uneven ripening and poor fruit flavor. Water stress also delays the development of vine maturity and appears to reduce vine fall hardiness. Kiwi vines respond exceptionally well to microsprinkler irrigation. The first year is a critical time for the establishment of a new kiwi. Water thoroughly twice a week. Soak the entire root system deeply – this usually takes 40-50 minutes. Kiwis should receive at least 1 inch of water each week for best growth and fruit production. Water regularly, especially during dry periods.

VARIETIES

A detailed Variety List can be found on our website: justfruitsanexotics.com