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Avocados, Mexican & Semi-Hardy Hybrids

Category:	Semi-hardy, semi-tropical, evergreen in milder winters
Hardiness:	Cold tolerance varies by variety
Light:	Full sun
Size:	30'H x 15'-20'W average; may be pruned for HxW
Soil:	Well-drained, will not tolerate standing water
Planting:	Plant after all danger of frost has passed; late March



Mexican Avocados are beautiful trees in the landscape. Their large, glossy leaves and naturally pyramidal shape are distinctly favorable attributes. Clusters of pale green, unremarkable flowers appear in February. Fruit ripens in August through September and beyond. For the first few years, avocados need protection from damaging winds, sunburn, flooding, and frost. Once your tree begins to mature, it will tolerate locally anticipated cold weather down to the high teens. Once established, avocados are fairly tough trees. However, many avocados fail during the first 12 months due to poor soil drainage, sunburn or improper irrigation habits. Follow these easy guidelines for improved success.

Care of Avocado Trees

Juvenile Care: Young avocado trees have unhardened, green wood for the entire length of their trunks. This green wood is susceptible to sunscald, freezes, and soil borne pathogens. It is recommended that you not plant your avocado in the ground until it has formed true bark on at least the bottom 12" of the trunk. Instead, bump your avocado up into increasingly larger containers for its first couple of years. A containerized tree is easier to protect from unfavorable climate extremes. Depending on the size at purchase, you may step it up twice before it is ready to go into the ground. A 3-gallon pot can be stepped up to a 7- or 10-gallon, and then into a 15-gallon before planting. You will probably not lose production time. Many avocados will produce a crop while they are in their nursery container.

Site Prep: If you do not have a spot on a slope or in sandy soil that will **never** be soggy, build a berm from native soil or a raised bed **at least** 5' in diameter and 18 inches above the native soil level. Unlike most fruit trees, it is recommended that avocados be planted with the graft union below grade. This will provide protection for the grafted variety. If the top of the tree is lost to a freeze, the protected portion of the variety will regenerate rather than the tree re-sprouting from the rootstock.

Create a bowl in the center of your berm/bed. The bowl should be several inches deep at the center. Follow the standard fruit tree planting instructions shown below using the bottom of the bowl as the native soil line, and digging the planting hole into this bowl. Plant your tree in the bowl with the top of root ball at the soil line and the graft union above the soil line. Over the course of the next 18 months to 3 years, slowly add soil into the bowl until the graft is completely underground and the soil line is now even across the berm/bed. Pull any mulch aside before adding layers of soil.

Planting: Select a planting area that is well-drained or create a raised planting bed. Remove all vegetation within a minimum three-foot diameter circle.

Locate the root flare; the point where the trunk transitions to the roots. Remove any nursery soil above this point, making sure the roots are still covered. Trim any roots that appear to be circling the root ball and any broken or clearly dead roots. Measure the depth of the resulting root ball.

Dig a hole that is wide and deep enough to easily accommodate the root ball. The sides of the hole should be tapered outward, not straight down (visualize a wok, not a stock pot) with the widest point at the top of the hole. The deepest point of the hole should be no deeper than your measurement of the root ball. This will allow the root flare to sit at the soil level and insures that the graft scar (located several inches about the root flare) will always be several inches above the soil level.

Place the root ball in the prepared hole. Check for straightness. Position the lowest branch you have decided to keep facing southwest. Backfill $\frac{1}{2}$ of the depth with existing soil – no amendments should be added during planting. Water well and allow it to drain. Fill the remaining $\frac{1}{2}$ of the depth. Tamp the soil, but do not pack hard. Water in well and water every day for a few days unless it rains. A mulch of composted native mulch or rotted leaves is highly recommended. Do not use bark mulch.

Pruning: Avocados do not require pruning for production. Prune only for shape or size.

Production: Avocados will begin to produce a few fruits two years after they are established. A mature avocado will produce two to three bushels of fruits. Avocado fruits are self-thinning.

Watering: After drainage, proper irrigation is the most critical factor effecting the establishment of your new avocado. Over-irrigation can induce root rot, which is the most common cause of avocado failure. To test to see if irrigation is necessary, dig a hole a few inches deep and test the soil by squeezing. If it is moist (holds together), do not irrigate; if it crumbles in the hand or is obviously dry, the tree may be watered. Never enter winter with wet soil. Avocado trees may not need irrigation during the winter rainy season, but watch for prolonged mid-winter dry spells.

Fertilizing: Commence feeding of young trees after one year of growth. Use a balanced, slow release organic fertilizer four times yearly beginning in February at the rate recommended on the product.

Harvesting: Avocado fruit does not ripen on the tree; nor does it fall to the ground when ripe. Most of the Mexican avocado varieties will be ready to pick in the early fall. Avocado maturity can be easily determined by picking a few fruit and setting them on the kitchen counter out of direct sun. If ripe, the

fruit will soften within three days to two weeks at normal household temperatures. If the fruit doesn't soften, try again every week or so with new fruit until you achieve softening and good flavor.

Pick the fully grown fruit and allow the smaller fruit to grow larger before picking so they will develop higher oil content. Mexican variety avocados are thin-skinned and will not store for a long time. They must be used shortly after harvesting. If fruit is high on the tree, use a long handled picking pole with a sharp "V" on the metal rim to cut the stem and a strong cloth bag to catch the fruit.

Winter protection: Avocados need protection from frosts and freezes for the first couple of years. When a severe freeze is forecast, mound additional soil around the trunk for extra protection, and water thoroughly two or three days before the cold weather is expected. Young trees can be draped (not wrapped) with a blanket or quilt (never use plastic) during the freeze event. The corners of the covering should be pulled outward and anchored to the ground, forming a tent. Any additional practical heat source under the tented tree will probably save even the leaves. You can try incandescent lights, decorative lights, electric heaters, camp lanterns or stoves. Once the avocados have two years of growth, they will not need this protection. The varieties sold at the fruit tree sale are cold hardy into the teens.

Sun protection: Young avocados have almost no brown woody bark. The trunk and branches are bright green. Just like the leaves, the trunk and branches are photosynthesizing and providing food and energy for the tree. This green tissue is very susceptible to sunburn. Young trees usually do not have enough leaves to shade this tissue and some special care should be given during the first year or two. One option is to plant the tree in light shade of an unwanted tree, and cut that tree down in a couple of years. Another is to build a simple structure to keep the mid-day and afternoon sun off the trunk. This structure can be covered with burlap for both shading and wind protection. One last option is to paint the green trunk and main branches with a whitewash. Make this by diluting a white *latex* paint with an equal part of water, and painting it on the trunk and branches, but not the leaves. Reapply as needed until the tree grows enough foliage to shade itself.

Varieties of Avocados for the 2018 Sale

Arizona, Don Juan, Mexicola, Mexicola Grande, Pancho/Poncho

Varieties of Avocados for the Houston Area Climate

Arizona: Called "the Unicorn of the Desert", this variety has been the subject of Avocado folklore. It is considered a "Haas" type that is dark green with brown or black speckled skin. Hardy to at least 24° F, although it is reported to have survived down to the high teens.

Brazos Belle: A large, upright, somewhat spreading tree. The purple-black fruit is an elongated pear shape, has creamy flesh and high oil content. The skin is shiny and paper thin. Ripens from August to October. Harvest when partially black then eat or refrigerate when fully black. Very cold hardy. (Similar to Wilma™)

Don Juan (Arvaipa): A nice-sized avocado with speckled green-brown skin and exceptional quality flesh. 25' tree at maturity. Hardy to the mid-teens.

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Fantastic: A vigorous, beautiful tree. The fruit has a creamy texture with “fantastic” flavors. Green, paper-thin skin; can be eaten skin and all. Considered the most cold hardy of all the Mexican avocados. (Similar to Pryor)

Joey: The fruit is medium in size and egg shaped. It has excellent flavor. This skin is purple-black in color. Heavy bearer. Ripens from August to October. Extremely cold hardy, to 15° F.

Lila: This beautiful tree produces 6-12 ounce bright green fruits with rich creamy flesh, paper-thin skin and high oil content. Ripens July - September. ‘Lila’ is evergreen to the mid- to low- 20’s. It has survived 15°F with some limb die-back and can return from severe freeze damage if the bud union is protected. (Similar to Opal®)

Mexicola: Tall, spreading, vigorous tree. Pear-shaped fruits are purplish-black with paper-thin skin. The flesh is high quality. Ripens in September. Recovers rapidly from a freeze. May defoliate at 20° F.

Mexicola Grande: Tall and spreading tree. The fruit is 15% - 25% larger than Mexicola and somewhat rounder in shape. The skin is paper-thin and purple-black. Good seed to flesh ratio with high oil content and a rich, nutty flavor. Hardy to about 18° F.

Pancho/Poncho: High quality, medium-large green fruit. This thin-skinned variety can be eaten just like an apple, skin and all. Besides producing wonderful fruit, this is one of the most beautiful of all the Mexican avocado trees. It has dark green, glossy foliage and has a beautiful pyramidal shape somewhat like the Southern Magnolia. Pancho is one of the earlier maturing varieties and is cold hardy to at least 20° F.