

## AVOCADO PLANTING GUIDE-MOIST AND WELL DRAINED

Besides proper planting I think fungicide may be necessary in some sites. Agrifos or another phosphite is recommended. Other registered avocado fungicides may be necessary too. Agrifos is biorational but not organic. It is considered completely safe.

A sunny site with a southern exposure is best. Ideally your home, or an evergreen forest to the north and west, will protect the trees from cold winter winds. Avocados must be planted the same height as they are in the container so that the soil surface is exposed to the air and not buried. The root-ball will need to breathe. Avocado must be planted on a raised bed or mound with well drained soil, unless planted on a sand dune or gravel bed. Excellent drainage can also be accomplished with ditches on a sloped planting site or as a cut and fill type mound if you have well drained sand over coral rock like the prevalent soil type in coastal and extreme southern peninsular Florida. Regardless of soil type or topography, if your soil is clay, sandy clay, or sand over clay, you must still have the soil immediately adjacent to the roots be extremely well drained. If you need fill, buy washed coarse sand. Don't use an organics based potting soil or compost for the bed or fill. Use compost and mulch only as a top dressing, and be sure to keep it away from the trunk. Get a large tomato cage or better yet, erect a frame so you can cover the whole tree when it gets too cold for the first few years. The frame will also support a shade which is recommended at planting time. The shade will gradually be removed over the course of the growing season. I use sticks and/or palm fronds for shade, removing them one at a time. I use a bent 20 ft. PVC pipe hoop-house type frame. Paint the pipe with good exterior grade latex, and it will last forever. Make a basin on the raised bed or mound. Mulch the slopes of the mound and the basin, but not the bottom, flat part of the basin since this would promote rot. I like pine bark, pine needles, or a pine needle/ hardwood leaf mixture for mulch. I rarely use wood chips. I would be reluctant to use chips for avocados. The top of the sloped sides of the mound and the basin need to be at least six inches above the graft union. Then the trees will need consistent moisture. I prefer drip irrigation with well or rain water. For fertilizer, you can use avocado and citrus fertilizer from Walmart or organics if you prefer. I prefer organics and use fertilizer sparingly since it is easier to add than to take away. I have the luxury of fertile soil, but it is poorly drained in the extreme. ONCE AND ONLY AFTER the tree reaches mature size, 6X6 ft., you can BEGIN TO SLOWLY AND GRADUALLY bury the base of the trunk, during the GROWING SEASON ONLY, to a depth of six inches above the graft union. Bury it with sand. You can only bury the trunk once the roots have spread throughout the mound or you will suffocate them killing the plant. This takes 1-3 years for me depending on exposure. I killed many trees trying to hurry the process. When frost threatens, I use foam rubber pipe insulation or bubble wrap to protect the base of the trunk from the ground level up to as high above the graft union as I can manage. This is in addition to a whole plant cover. A thick layer of mulch can be piled up around the trunk as long as it is removed when the cold weather passes. Don't allow such mulch to get wet and compacted as it will smother the young roots. The young trees are about 5-10 degrees less cold hardy than they will be once they reach mature bearing size, are well rooted, and have the graft union buried. Mature Gainesville and Mexicola trees, protected from the wind in my area by the surrounding trees, had their tops defoliated, some with almost no twig damage, during the 2008-2009 winter lows of 14 degrees, and most then flowered, grew new leaves, and fruited as usual. A tree that is completely defoliated or with extensive twig and branch damage will not bear much, if any fruit, until the following season. After the tree reaches mature height, six feet wide and tall, you can allow the tree to fruit. Prune off the flowers and fruit before this.

This section is for those growing avocados in zone 8a or colder climates. The pruning method is useful to anyone wishing to control the height of their tree though. Prune the branches one foot below the frame in summer after you harvest the fruit, July-September for the Mexican race avocado varieties. This allows time for new terminal flowering branches to grow before winter dormancy, and the flowering cycle the next spring. This protective structure and pruning method allows easy and successful avocado cultivation into Zone 7, at least as an easily protected bush or shrub. I just planted some trees this past spring

because they were getting root-bound. I have been selling fewer trees lately due to concerns about Laurel wilt. I planted these trees exactly as described, and on terrible clay soil. They survived the freeze, winter 2009-2010, with lows in the single digits, with no damage, and are thriving. I did not use supplemental heat, just a single layer cover. I recommend a thick, multi-layer, plastic or fabric cover in Zone 7. I recommend supplemental heat under the cover, Christmas lights, space heaters, etc..., in Zone 6 or colder.

The trees can be stressed by heat or cold and too much time in the shipping box. This occurred once when shipping across the country. If the trees are wilted, I would remove 90% of the leaves including all the young succulent ones, put them in filtered light, and keep the soil on the dry side never letting it dry out of course. Avocados especially, but all plants need to be still. You can pick them up, throw them down, and kick them if it is all done at one time. And they will probably recover, if you then leave them alone and water them. But, if you constantly pick them up and move them around and play with them, they will die. This is especially true for a species with sensitive roots like Avocados. I know there are some rugged plants out there that are hard to kill, but avocados are not one of them. People ask me what they are doing wrong with their plants, and it is usually too much water following not enough, or they think their plant is a pet and they keep disturbing it. Another common problem is city water, the chlorine etc... is eventual death to most plants. You will see browning leaf tips. Rain or good well water is best. If you must use city water, let it stand exposed to the air for a day or two.

Laurel Wilt is a native fungus that has become a new spreading epidemic to plants in the Laurel family, including avocados. The fungus is spread by an introduced species of ambrosia beetle. It has not yet reached my part of Florida. I was recently and gratefully informed of preliminary research which suggests that, while some avocado varieties will be killed by Laurel Wilt, other varieties are resistant or immune. This is great news for us organic growers. The disease is new and further research is required before cultural practices and varieties can be recommended.

If you need any more info or more likely some clarification, just ask.

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