

Avocado Production Manual

Seven Steps of Planting Avocado Trees

Here are some steps to follow to grow your avocado tree:

1. Choose the correct type of avocado tree. There are several varieties of avocado trees, and some are better suited to certain climates than others. For example, if you live in cooler weather, you may want to choose a variety like the Hass avocado, known for its ability to withstand colder temperatures.
2. Plant your avocado tree in the correct location. Avocado trees need plenty of sunlight and well-draining soil to thrive. Plant your tree in an area with at least six hours of direct sunlight daily and well-draining soil.
3. Water your avocado tree regularly. Avocado trees need a consistent supply of moisture to grow and produce fruit. Water your tree deeply once or twice a week, and wet the entire root system. Avoid over-watering, as this can lead to root rot.
4. Fertilize your avocado tree. Avocado trees need a balanced fertilizer to support healthy growth. Look for a fertilizer that contains nitrogen, phosphorus, and potassium, and apply it according to the instructions on the label.
5. Prune your avocado tree. Pruning helps to encourage healthy growth and improve the tree's shape. Remove any dead or damaged branches, and thin out the canopy to allow light and air to reach the tree's interior.
6. Protect your avocado tree from pests and diseases. Avocado trees can be susceptible to pests like avocado lace bugs and diseases like root rot. Keep an eye out for any signs of these problems, and take action as needed.
7. Harvest your avocado fruit. Avocados are ready to be picked when they feel slightly soft when squeezed gently. Use a sharp knife to cut the fruit from the tree, being careful not to damage the tree in the process.

1. Avocado Climate Requirements

Avocados grow best in tropical regions and areas with an altitude of 1500 -2100 meters. Farmers should avoid planting avocados in areas affected by frost because they have low frost tolerance. Varieties such as the Simmonds, Booth 7, and 8 are ideal for growing in hot and humid areas such as the coastal parts of Kenya.

Temperature and Rainfall

West Indian avocado varieties, such as the Hass variety, thrive best at 25 – 28 degrees Celsius. In addition, the preferred rainfall should be at least 1000 mm and spread throughout the growing season. Avocado farmers in Kenya are encouraged to use irrigation techniques for optimal yields. Where irrigation is preferred, water should not be more than 50mm at any time. In addition, it should be regularly applied to avoid water stress.

The best soils for avocado farming should be free-draining soils with a pH of 5.5 – 6.5. Water-logged soil should be avoided because they create a perfect atmosphere for developing fungi such as root-rot disease.

Agronomy services

If you are a first-time avocado farmer, you need to ensure you work with an expert to increase yields and identify diseases early on in the growth cycle. In addition, only plant avocados after a

soil test. Our agronomists in Kenya are trained to identify various pests and diseases that attack avocados.

Our agronomists are located nationwide, and we respond to inquiries in less than 24 hours.

Avocado Varieties Grown in Kenya

There are different avocado varieties grown in Kenya. The most popular is the Hass variety, which is preferred for its profitability, especially in the export market. Hass Avocados mature in 8 -9 months after blossoming. During the early stages of the fruit, Hass is green in color but gradually turns brown as it develops. It has thin and leathery skin with a pear shape,

Other avocado varieties grown in Kenya include:

Fuerte

The Fuerte variety is a crossbreed between Guatemalan and Mexican species. Each fruit weighs around 140 -395 grams when mature. It has a pear shape with a medium seed. One thing farmers need to note about this variety is that it is susceptible to diseases such as Scab and Anthracnose. Fuerte avocados have smooth green skin, and unlike the Hass variety, Fuerte does not change color when it matures.

Puebla Avocados

Puebla avocados mature in 5 -7 months and have a deep maroon-purple color, a roundish shape, and a smooth glossy feel. The seed is medium-sized with a conical shape. The Puebla variety is sold locally, and the seedlings are used as a rootstock. In addition, they have a nutty aroma with a rich butter taste.

Nabal Avocados

This Guatemalan variety matures in 8-9 months after blossoming. Nabal varieties should be planted at intervals of 8M by 8 M. When mature, it has green/yellow flesh, and the tree always grows upright.

Pinkerton Variety

This fruit variety is known for its long pear-shaped size and dark/pale green color. The recommended spacing for this variety is 6m by 6m.

The two most important commercial fruit varieties are Hass and Fuerte. This is sold in the export market, while Fuerte is sold in the local market.

Hass Avocado Farming in Kenya

Hass Avocado can be distinguished by its large round seed and purplish brown color when ripe. Other varieties are usually green in color, even when ripe. Hass also has a buttery and creamy texture with a sweet taste.

There are specific reasons why the Hass variety is considered the king of all avocados in the world. These are:

- ⑩ It is preferred for its culinary uses
- ⑩ It has more fat than other varieties making it smoother and creamier
- ⑩ Hass avocados have longer shelf life making it easier to ship for long distances
- ⑩ Has good cooking qualities

Benefits of Hass Avocado Farming in Kenya

One of the main benefits of Hass avocado farming to farmers is its lucrative returns in the export market. It has a big demand in countries such as the United Kingdom, the Netherlands, and Egypt.

It is estimated that in 2023, the largest importers of Hass avocados in Europe will be Kenyan farmers.

The wholesale prices of Hass fruits are also lucrative because the prices retail at 10 -17 per fruit when compared to the Fuerte variety, which is bought at 3 -5 shillings per fruit. Various government bodies, including KEPHIS, regulate fruit quality.

Another advantage of planting this variety is that it requires little space with the recommended spacing of 5 by 5 meters. Compare this to other types that need a spacing of 8 by 8 meters, like the Nabal seed variety. Therefore, Hass can be planted by small-scale farmers.

It is important to note that farmers registered with the Avocado Society of Kenya get tree seedlings at subsidized costs. Also, farmers benefit from better synergies created between them and exporters.

Hass Avocado Ecology

It would be best to plant Hass avocados in regions with an altitude of 1000 – 2000m. Rainfall should be evenly distributed throughout the year, with a minimum rainfall of 1,000 mm -1600mm. Hass avocados should be irrigated during the dry season for optimal yields. Farmers should plant this avocado variety in well-drained soil with a pH of 5 – 7.

Regions where Hass avocados do well include:

- ⑩ Meru
- ⑩ Eldoret
- ⑩ Kiambu
- ⑩ Kisii
- ⑩ Meru
- ⑩ Nyeri
- ⑩ Murang'a

When planted in areas such as Embu, Kathiani, Mua Hills, and Machakos, they should be irrigated.

How to Plant Hass Avocados in Kenya

Before planting these avocados, ensure that the soil is well-fertilized. Farmers are encouraged to use hybrid fertilizer, which increases yield by more than 30%. An excellent example of such a fertilizer is Safi organics. The following steps should be taken when planting Hass avocados:

Ensure the land is plowed up to 30cm deep and the topsoil is separated from the subsoil. After that, add enough organic fertilizer to the soil to replenish the missing nutrients. When using chemical fertilizer, use DAP.

Hass avocados should be grown from grafted seedlings to increase their disease resistance. In addition, grafting makes the trees adaptable to various types of soil.

Planting Holes

Standard Hass spacing is 5 by 5 meters. This means that an acre of land should hold a maximum of 150 Avocado trees. Farmers are advised to dig the spaces straight to make it easier to tend the trees and harvest. The dug holes should be 2 feet deep or 1 meter deep if being planted in regions with poor rainfall levels.

Mulching and Pruning

Mulching should be done using organic materials to reduce evaporation and high root temperatures affecting growth. In addition, mulching helps reduce weeds which directly compete for nutrients and water.

Pruning should be done before the flowering stage and after harvesting. Hass avocado farmers should also practice thinning to reduce competition for nutrients. Instead of many low-quality fruits, thinning will guarantee fewer quality fruits with a marketable weight and size.

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