

AVOCADO FARMING

Introduction

Avocado is an important commercial fruit in Kenya both for local and export markets. The fruit is highly nutritious - rich in proteins and cholesterol free. Both large-scale growers and small-scale farmers cultivate it. The fruit is also a source of minerals e.g. magnesium, phosphorous, calcium & potassium and vitamins e.g. A, B1, B2, B6, C & D needed for a healthy diet. In addition to being used as food, the fruit is gaining a wide use in cosmetics too.



Common varieties grown in Kenya

Hass: It is one of the popular varieties grown in Kenya. It is characterized by dark purple colour when ripe and has a good shelf life.

Has moderate spreading habit.

Recommended spacing: 7M by 8M.

Matures 8-9 months after flowering.



Fuerte: It is characterized by green and thin slightly rough skin even when ripe.
Has a wide spreading habit.
Recommended spacing: 8M by 10M
Matures 6-8 months after flowering.



Puebla: Used as rootstock by many farmers as it has no fibre and is resistant to diseases. The flesh is green, juicy and of good flavour.
It is a rapid grower, erect with drooping branches.
Matures 5-7 months after flowering.



Nabal: The fruit has green/yellowish flesh.
The tree is always upright, bears heavily but has a tendency of alternate bearing.
Recommended spacing: 8M by 8M.
Matures 8-9 months after flowering.



Pinkerton: The fruits are long pear shaped with dark/pale green skin colour.
The tree has moderate spreading habits, bears heavily & regularly
Recommended spacing: 6M by 6M.



Contact iShamba on 0711082606 or SMS to 21606 to know the best variety in your regions and where to get seedlings

Ecological Requirements

Avocado does well under the following conditions:

- Altitude range between 1000m to 2000m
- Well distributed rainfall range of not less than 1000mm. Water in the dry season
- Optimum temperature range of 20 to 24 degrees celsius
- Deep, well-drained fertile sandy or alluvial loams soils with pH ranging from 5-7

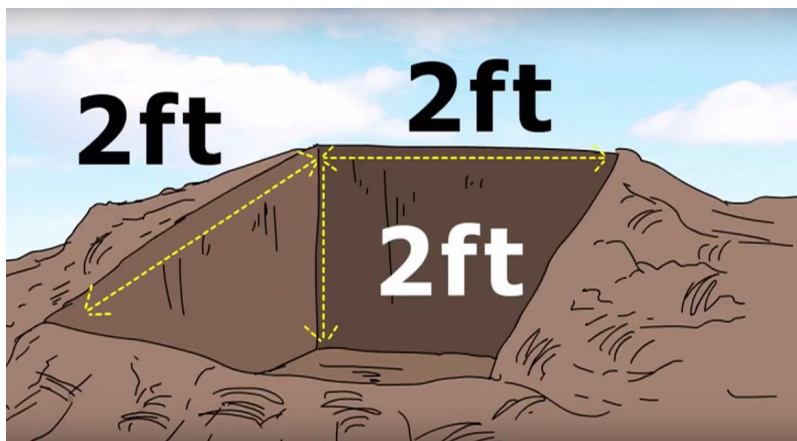
Planting Material

Avocados can be grown from seeds or from seedlings. Graft to improve the variety by increasing its resistance to diseases, improving yield and increasing its adaptability to different soils.

Planting

When planting avocado, follow these steps:

1. Remove stumps and plough the land upto 30 cm deep
2. Dig holes 2ft by 2ft by 2ft. Space holes depending on the variety, soil fertility and climatic conditions. Spacing may range from 6m by 7m to 8m by 10m



3. Separate the top soil and the subsoil
4. Mix topsoil with 2 buckets (20kg) of well rotten manure and 120g of TSP/DAP
5. Fill back the soil-manure-fertiliser mix
6. Remove the polythene, plant the seedling carefully and firm the soil around the hole
7. Water well



Field management

1. **Mulching**- Apply mulch to reduce moisture loss and controls weed growth
2. **Irrigation**- Water is vital in several stages of tree development and the fruiting cycle.
3. Use 5 to 20 litres of water depending on the size of the seedling
4. **Fertilization**- Apply 1 wheelbarrow of well decomposed manure twice a year ie during the onset of long and short rains. Also, Topdress with 120g of CAN.
5. Lack of minerals will be seen in the leaves. Call 0711082606 for more.
6. **Pruning**- Prune at early stages before flowering and upon completion of harvesting. This will encourage lateral growth and multiple framework branching. Ensure the tree canopy height is always maintained at 70% of its row width. This will allow light to penetrate, improve yield and provides a superior tree structure
7. **Thinning**- This involves removing some of the already formed fruits in order reduce competition for nutrients, therefore ensuring high-quality fruits. Too many fruits will result to small sized fruits.
8. **Weed**- Weed to reduce competition for nutrients and water.

Pest and diseases control

Common Pests include:

1. Red spider mites- They are red-brown insects which hide under the leaves.
2. Avocado Thrips- They are small insects which suck sap from the leaves



3. Whiteflies- Small white insects which also suck sap from avocado trees
4. Fruit Flies- They lay eggs on the fruits causing them to rot. Hang traps on trees to stop them.
5. Pests can be controlled by spraying with effective pesticides.

Diseases

The common diseases attacking avocado are fungal. They include:

1. **Avocado root rot.** It is a fungal disease which causes to have sunburnt and die back at the tips. The trees also produce sparsely and have fewer leaves which are pale and wilted. The roots decay and the whole tree dies prematurely. Affected trees should be uprooted and destroyed. We recommend Hot water and fungicide treatment of seeds for seedling production to preventive measure. For affected trees, spray with a fungicide e.g. Ridomil or Master 72WP.
2. **Anthracnose:** The fruits develop dark brown and dry spots. Young fruits may drop. In more mature fruits, the infection remains hidden until the fruit is harvested and ripens. Control with a copper based fungicide e.g Oshothane or Thiovit Jet.



Observe proper management, sanitation and maintenance of the trees to control diseases in your orchard.

Harvesting avocados

Grafted avocado varieties start to fruit after 3-4 years. The following are some of the indicators of reaching maturity:

- A change in colour from green to black or purple in dark varieties
- The fruit stems turn yellow, the skin may appear less shiny, or the end develops rust-like spots on green varieties
- Some varieties develop a whitish appearance.
- Fruits float on the surface when immersed into water.

You can harvest 250-300kgs per tree in a year (8-10 tonnes per acre per season).

