Avocado

Botanical Introduction

Scientific Classification

Kingdom: **Plantae**

Phylum: **Angiosperms**

Class: **Magnoliids**

Order: **Laurales**

Family: **Lauraceae**

Genus: **Persea**

Species: **P. americana**

Binomial name: **Persea americana**

introduction

- Larg berry fruit tree.
- The tree is evergreen, some varieties lose their leaves For a short time.
- It's a tropical & subtropical ,it does not tolerate freezing temperatures..

Body of tree:

Root:

fibrous root

Shoot

can grows to 20meter

Leaves

- alternately arranged leaves 12 -25 cm long.
- Variable in shape.
- They are often hairy and reddish when young, then become smooth, leathery and dark green when mature.

Flowers

Avocado flowers are bisexual, however, the female and male flower parts function at different times of the day. Varieties are classified into A and B types according to the time of day

Pollination

avocado flowers may be both **self- and cross-pollinated**.

- Self-pollination occurs during the second flower opening.
- Cross-pollination may occur when female and male flowers from A and B type varieties open simultaneously.
- Self-pollination appears to be primarily caused by wind,
- whereas cross-pollination is caused by large flying insects such as bees and wasps.

Figure 4. Timing of avocado flowering for "A" and "B" flower types.

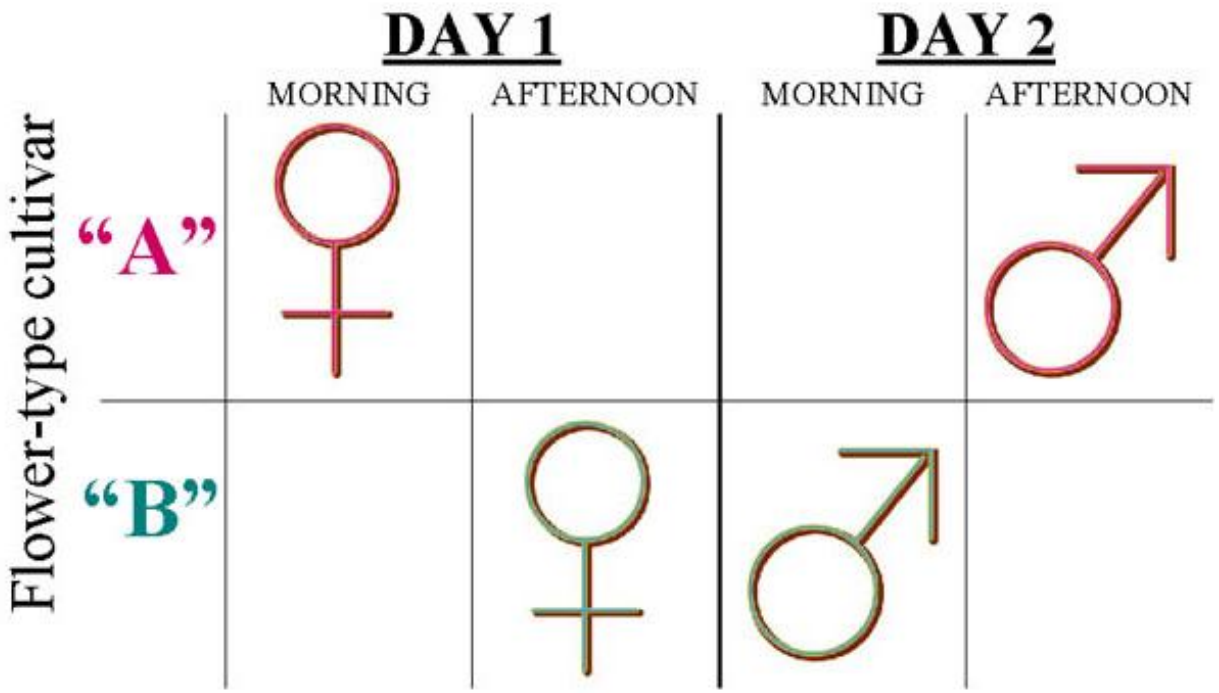
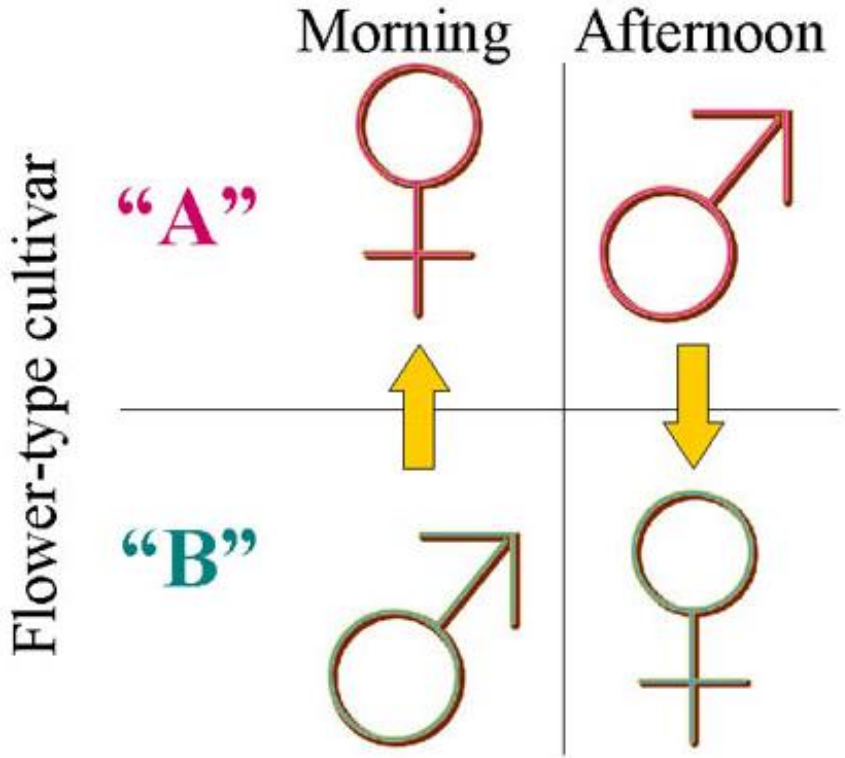


Figure 5. The sequence of timing for "A" and "B" flower types under field conditions.



Pollination

Avocado varieties and flowering types

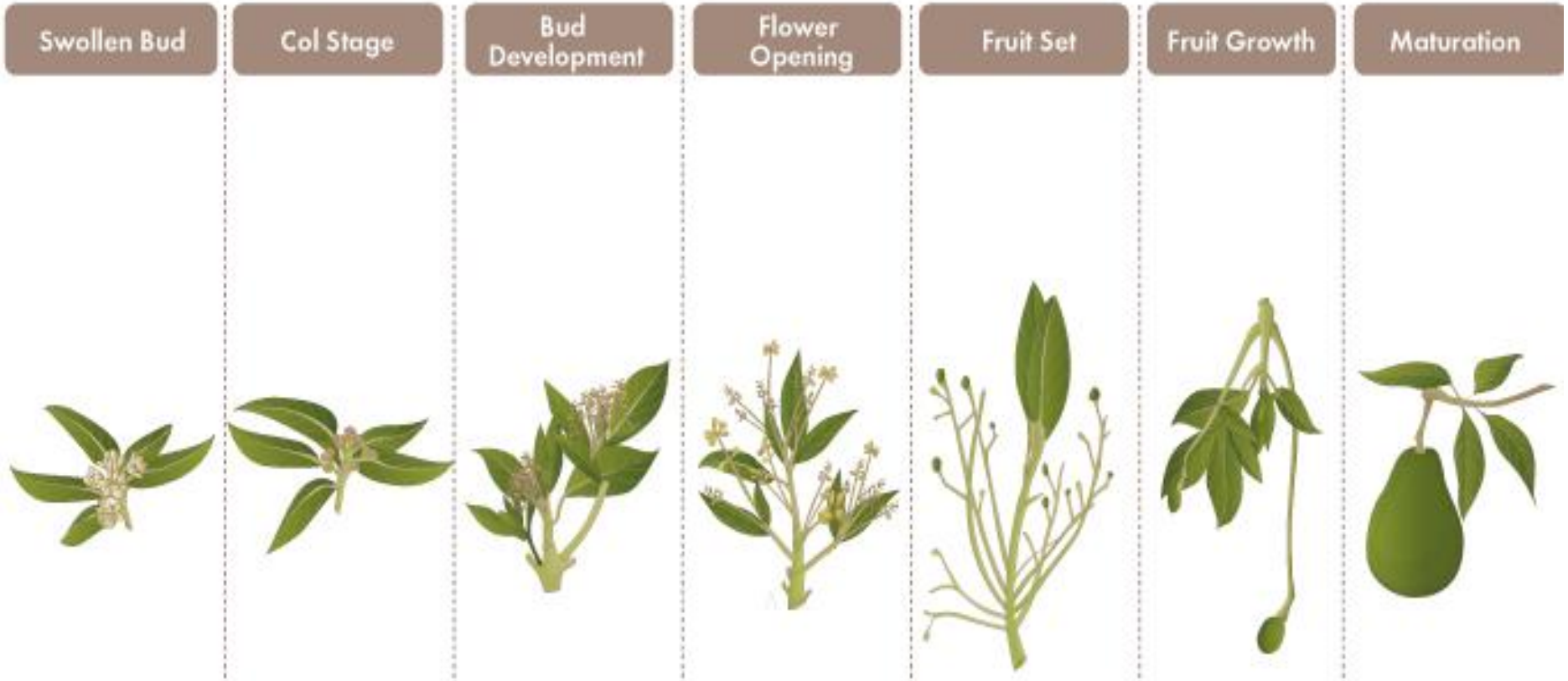
"A" Varieties	"B" Varieties
Hass	Bacon
Gwen	Ettinger
Lamb Hass	Fuerte
Pinkerton	Sharwil
Reed	Sir Prize
GEM	Walter Hole
Harvest	Zutano
	Marvel
	Nobel

Fruits

- The fruit is a berry, consisting of a single large seed, surrounded by a buttery pulp.
- The skin is variable in thickness and texture.
- Fruit color at maturity may be green, black, purple or reddish, depending on variety.
- The fruit does not generally ripen until it falls or is picked from the tree


BACON
HOPKINS
FUERTE
JESSICA
FUJIKAWA
REED
TIM
HASS

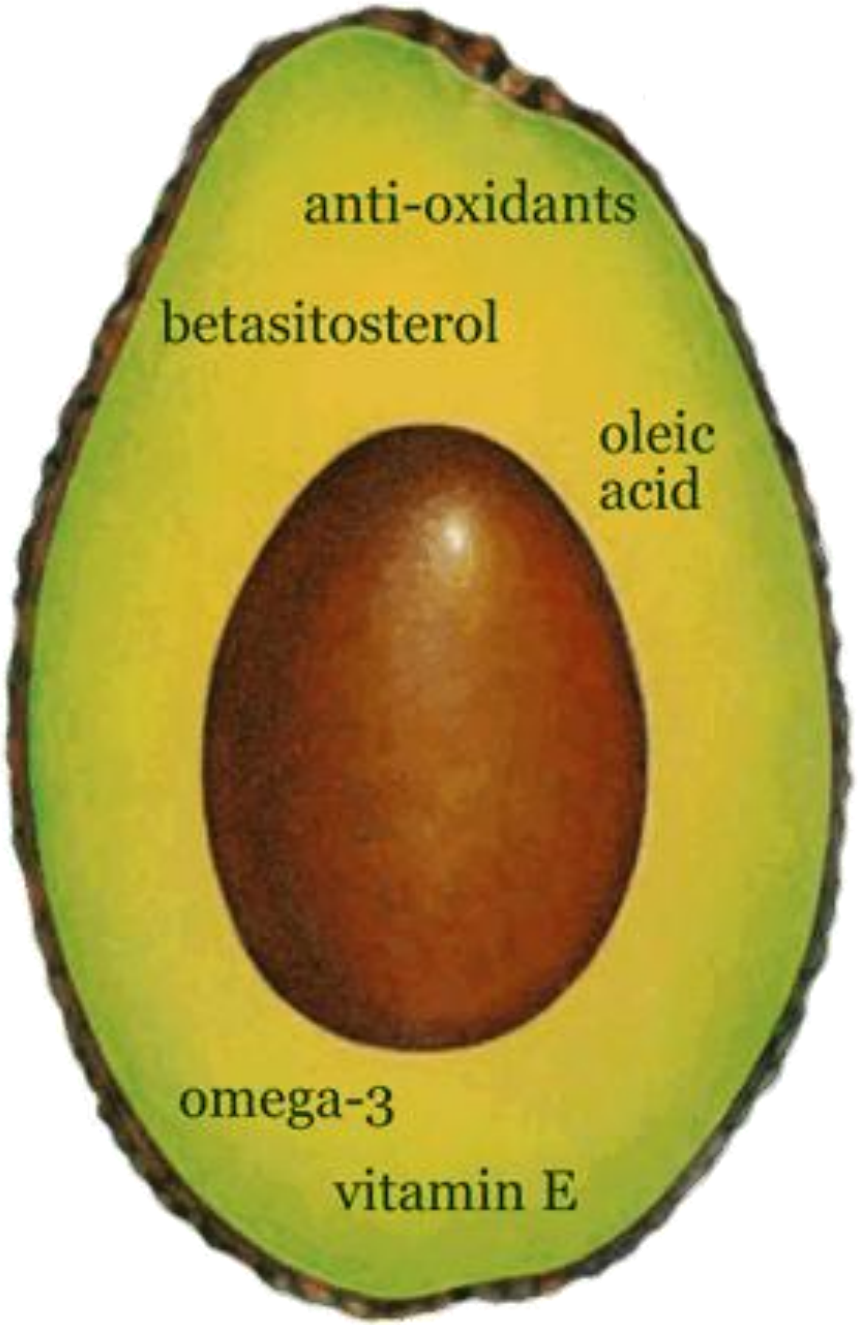
Growth stage of development



Flowers appear in
January - March

Fruits mature in
October – December

Nutrition value



Nutrient value of avocado fruit (100 g of fruit).

Constituent	Approximate value	Constituent	Approximate value	Constituent	Approximate value
Water content	80%	Carbohydrate	8.91 g	Phosphorus	39 mg
Calories	112 kcal	Total dietary fiber	5.3 g	Potassium	488 mg
Protein	1.59 g	Calcium	11 mg	Sodium	5 g
Fat	8.87 g	Iron	0.53 mg	Vitamin C	7.9 mg
Cholesterol	0.0 mg	Magnesium	34 mg	Vitamin A	612 IU

Propagation

Avocados can be propagated by seed, taking roughly four to six years to bear fruit, although in some cases seedlings can take 10 years to come into bearing.

grafting

budding

rootstocks

- Prime quality varieties are therefore propagated by grafting to rootstocks that are propagated by seed or by layering .
- After about a year of growing in a greenhouse, the young rootstocks are ready to be grafted.

Spacing and Site selection

- In light soil (7.5x7.5 m) may be sufficient.
- In deep, rich soil, the tree makes its maximum growth and a spacing of (9.1 or 10.7 m) may be necessary.
- trees should be planted in full sun for best growth and fruit production.

soil

Do not tolerant
flooding or
poorly draind
and well aerated
soil

Continuously wet or flooded conditions often result in decreased growth and yields, nutrient deficiency symptoms, dieback, and sometimes tree death.

Harvest and postharvest

Like the banana, the avocado is a climacteric fruit,
which matures on the tree, but ripens off the tree
it picked hard and green and kept in coolers at 3.3 to 5.6 °C
until they reach their final destination