

Sweet Orange

April

- Ensure the soil suitability by digging of a profile pit of 3 X 3 X 3 ft. observe the soil for presence of any calcareous nodules or sheet rock. If the lime nodules or sheet rock is present avoid such soils for taking up plantations.
- Avoid water logging or ill drained soils and black cotton (BC) soils.
- Collect soil sample for every one feet depth of soil from the suitable lands profile pit dug out.
- Based on soil test report if the soil PH is 7.0 to 8.0 it is considered as suitable for mango plantation. PH below 6.0 and above 8.5 shall be avoided.
- Soils and Irrigation water with Electrical Conductivity (EC) above 1.0 dsm and exchangeable sodium above 15 % shall be avoided.

May

- Take up summer ploughing with MB plough twice and level the land.
- Alignment and peg marking for pit digging at 6.0 mtr. Spacing between in the rows and plants should be given.
- Pit digging – Precaution to be taken while pit digging include placing the dug out top soil (1 ½ ft.) to the right side of the pit and bottom (1 ½ ft.) to the left side of the pit. Allow the pit to expose to sun atleast for two weeks before filling the pits to control soil born pest and diseases.
- Make arrangements for procurement of plant material from reliable nurseries preferably from Govt. nurseries or from nurseries recommended by department of horticulture.

June

- Pit filling – fill the pits with top soil mixed with 50 kgs of Farm Yard Manure (FYM) + 1 kg Single Super Phosphate + 1 kg Neem Cake and 100 gm. Of 10% Follidol dust per pit.
- Fill the pits with the soil atleast 6'' above the ground level so that when the soil settles it will be at the ground level at planting.
- Ensure thorn fencing or with any thick growing live fence to control cattle trespassing.
- Give mark out for trench cutting and complete the trench cutting for drip installation.
- With the onset of monsoon farmers can sow inter crops.

July

- Procure the plant material from the selected nurseries by the farmers in coordination with CIG group members.
- At the time of procurement ensure that quality of plant material is selected to avoid losses in future.
 - The graft should have atleast 4 to 6 flushes with 60 to 75 cm. height
 - Graft union should be perfect and atleast 6'' above the soil in the poly bag.
 - Graft should be free from side shoots on root stock.
 - The sapling should be healthy and free from pest and diseases.
- Arrange for transportation of plant material from nursery to the planting site.
- Keep the saplings near water source and water them regularly till planting is done.
- If there is any delay in receipt of good rains the pits should be soaked by giving irrigation or by running the drip system. Ensure that the soil in the pit is at ground level other wise level the soil in pits.
- Take up planting the saplings in the pits without disturbing the earth of ball around the root system and ensure the graft union is 6'' above the ground level after planting.
- Stake the plant with strong support stick 4 to 5 ft. To avoid termite attack dip the bottom of the stick in black tar.
- Water the plant immediately after planting.
- Irrigate the plants at every 4 to 5 days interval during the first month and later at 8 to 10 days interval if there are no rains during the initial two years.

August

- New growth on planted saplings start in 2 to 3 weeks time. Protect the new growth from the attack of leaf eating caterpillar or beetles etc., by spraying Quinolphos or Endosulphon @ 2 ml./lt. of water at every 15 to 20 days interval.
- Weeding should be done atleast once in a month during monsoon season to control weeds. Simultaneously the basins around the plant should be made to retain water.

- To avoid Evapo-transpiration losses mulch the basins with paddy husk or paddy straw or ground nut shells. Mulching also help in the control of weeds in the basins.
- Remove the side shoots which appear on the root stock.
- Leaf spot diseases generally appear when heavy rains are received during Aug.-Sept . control by spraying Copper Oxy Chloride (Blitox) @ 3 gm./lt. of water. If not controlled in time twig drying (Die back) leading to death of plants will take place.

September

- The **termite** attack is seen to the support stick. Spray Chloropyriphos (Termex- C) @ 5 ml./lt. of water. to the stem and support stick. Also drench the basins with the above chemical.
- **Micro nutrient deficiencies** if observed - spray Multiplex @ 5 gm./lt. of water. It can be mixed and sprayed along with any pesticide.
- **Leaf galls** if observed on new flush – remove affected leaves and spray Phosphomidon @ 1.5 ml./lt. of water.
- **Fertilizers** - following fertilizers to be applied as 1st top dressing for each pit as shown below

Urea	-	50 gm./ plant
Single Super Phosphate	-	125 gm.
Murate of Potash	-	40 gm.

- Apply the fertilizers atleast 6'' away from the plant. Irrigate the pits immediately after application of fertilizers

October

- **Gap filling** – If any gaps are noticed due to death of plants should be replaced by taking up gap filling.
- Remove the side shoots which appear on the root stock.
- **High rain fall zones** - planting can be done in Oct.- Nov.,
- If inter crop during June-July is not cultivated farmers can sow inter crops for rabi season during this month.

November

- Soil working in the basins and mulching to be done.

- Remove the side shoots which appear on the root stock.

December

- Generally flowers appear along with new shoots on the grafted plants. The flower buds should be removed (pinching) as soon as they appear, otherwise the flowers hamper the growth of the plants.
- Since the weather is cool and foggy, Powdery Mildew diseases and leaf hoppers are likely to attack the growing shoots. Control by spraying Wettable Sulphur (80% WP) @ 3 gm + phosphomidon 2ml./ lt. of water.
- **Fertilizers** - following fertilizers to be applied as 2nd top dressing for each pit as shown below

Urea - 50 gm./ plant

Single Super Phosphate - 125 gm.

Murate of Potash - 40 gm.

- Apply the fertilizers atleast 6'' away from the plant. Irrigate the pits immediately after application of fertilizers

January

- If flowers continues to appear on the grafted plants remove them by pinching.
- Control Powdery Mildew diseases and leaf hoppers by spraying Wettable Sulphur (80% WP) @ 3 gm + phosphomidon 2ml./ lt. of water. if uncontrolled.

February

- Irrigate the plants at 5days interval regularly.
- **Bark borer and stem borer** – Incidence likely during hot weather observe each and every plant regularly and if noticed control them by injecting Dichlorovas @ 10 ml. /lt. of water in the damaged holes and plugging them with sticky soil.
- Apply Bordeaux Paste on the trunk upto height of 30 to 45 cm. to avoid frequent incidence termites and any other fungal diseases.

March

- **Fertilizers** – Fertilizers to be applied as 3rd top dressing for each pit is shown below

Urea - 50 gm./ plant

Single Super Phosphate - 125 gm.

Murate of Potash - 40 gm.

- Apply the fertilizers atleast 6'' away from the plant. Irrigate the pits immediately after application of fertilizers
- Apply one basket full of mulch material to control evapotranspiration loses and weed growth in basins.

April

- Ensure regular irrigation through drip or atleast once in 5 days interval through basins irrigation,

May

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- Soil working to create soil mulch.

June

- **Fertilizers** – Fertilizers to be applied as 3rd top dressing for each pit is shown below

Urea	-	50 gm./ plant
Single Super Phosphate	-	125 gm.
Murate of Potash	-	40 gm.