



GROW GUIDE

TOMATO



Step 1: Soil & Field Preparation

Soil Type & Preparation: Well drained, fairly light fertile loam with fair moisture holding capacity is ideal. pH : 6-7, deep ploughing and harrowing.

Container Selection: Tomato grow well in containers, raised beds and grow bags.



Soil Type & Preparation



Pot



Raised Bed



Grow Bags

Container Selection

Step 2: Seedling Production

Sowing Method: Transplant

Sowing Depth (inches): 0.25

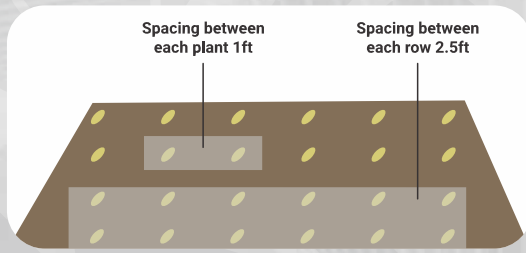
Sowing Distance (inches/feet): Between Seeds – 1 ft ; Between Rows – 2.5 ft



Sowing Method



Sowing Depth



Sowing Distance

◇ Cover the seeds with soil and compress it by hand.

◇ Sprinkle the water to make it moist. Do not wet the soil by over watering it.

◇ Once sowing is done, keep your seedling tray indoor in such a way that it should get sunlight at least 4 to 5 hours a day.

Step 3: Planting Procedure

Transplant:

◇ After 15 to 20 days, your plants are ready to transplant. Once your seedling reaches 3 to 4 inches height and having 3 to 4 leaves, then you should transplant to some big pots or outdoor garden so as to get large room to grow up, to develop a strong root system.

◇ Be careful while transplanting as it doesn't disturb the roots.



Transplanting

Spot:

◇ Provide them with proper sunlight. It should get daily 6 to 8 hrs direct sunlight.



Feed & Watering:

◇ Water regularly & thoroughly to encourage the roots to look for water and nutrients deep in the ground. Add fertilizers to the soil around the plants for better growth.



Temperature & Humidity:

◇ Tomatoes need consistent night temperatures between 12 degree Celsius and 24 C (55°F and 75°F) to set fruit.

◇ The ideal humidity should be between 65 and 75% during the night and 80 to 90% during the day.



Staking:

Place stakes (support to plants): Make sure the plants get support by placing stakes right after you plant it.



Step 4: Pests and Diseases

Key Pests



Leaf Miner



caterpillar



Spider Mites



Whiteflies



Root-Knot Nematodes



Aphids

Key Diseases



Early Blight



Fusarium Wilt



Powdery Mildew



Anthracnose



Late Blight



Southern Blight



Tomato Yellow Leaf Curl



Bacterial Spot

Step 5: Harvesting

Days to harvest – 65-70 days after transplanting

◇ The perfect tomato for picking will be solid and very cherry in gloss, regardless of size, with maybe some yellow remaining around the shank. A ripe tomato will be only slightly soft.



Features



- **Sowing Cycle :** May-February.
- **Plant Characteristics :** Determinate, dark green foliage, excellent flower retention & very early fruit setting.
- **Fruits Characteristics :** Cluster formation, 3-5 fruit /cluster, uniform green shoulder, glossy red colour, very high firmness, sour taste.
- **Uniqueness-** Wader sowing window, high yield, heat set.

Brinjal



Step 1: Soil & Field Preparation

Soil Type & Preparation: Well drained, fairly light fertile loam with fair moisture holding capacity is ideal. pH:6-7, deep ploughing and harrowing.

Container Selection: Brinjal grow well in containers, raised beds and grow bags.



Soil Type & Preparation



Pot



Raised Bed



Grow Bags

Container Selection

Step 2: Seedling Production

Sowing Method: Transplant

Sowing Depth (inches): 0.25

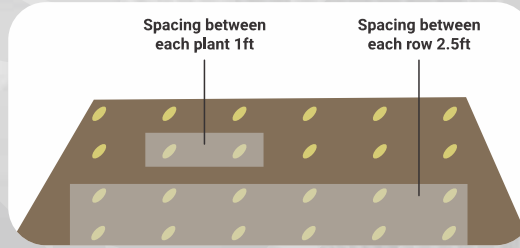
Sowing Distance (inches/feet): Between Seeds – 1 ft ; Between Rows – 2.5 ft



Sowing Method



Sowing Depth



Sowing Distance

- ◇ Cover the seeds with soil and compress it by hand.
- ◇ Sprinkle the water to make it moist. Do not wet the soil by over watering it.
- ◇ Once sowing is done, keep your seedling tray indoor in such a way that it should get sunlight at least 4 to 5 hours a day.

Step 3: Planting Procedure

Transplant:

- ◇ After 15 to 20 days, your plants are ready to transplant. Once your seedling reaches 3 to 4 inches height and having 3 to 4 leaves, then you should transplant to some big pots or outdoor garden so as to get large room to grow up, to develop a strong root system.
- ◇ Be careful while transplanting as it doesn't disturb the roots.



Transplanting

Spot:

◇ Provide them with proper sunlight. It should get daily 6 to 8 hrs direct sunlight.

**Feed & Watering:**

◇ Water regularly & thoroughly to encourage the roots to look for water and nutrients deep in the ground. Add fertilizers to the soil around the plants for better growth.

**Temperature & Humidity:**

Brinjal need consistent night temperatures between 12 degree Celsius and 24 C (55 and 75°F) to set fruit The ideal humidity should be between 65 and 75% during the night and 80 to 90% during the day.

**Staking:**

Place stakes (support to plants): Make sure the plants get support by placing stakes right after you plant it.

**Step 4: Pests and Diseases****Key Pests****Aphids (General)****Colorado Potato Beetle****Flea Beetle****Slug**

Key Diseases



Bacterial Wilt



Cercospora leaf Spot



Alternaria leaf Spot



Tobacco mosaic virus

Step 5: Harvesting

Days to harvest - 50-60 days after transplantation

- Inspect the eggplant for smooth and shiny skin. When it is ready to be harvested, the brinjal's skin should appear glossy and smooth. There should be no wrinkles on the surface of the plant



Features



- **Sowing Cycle :** May - Aug / Sept-Oct / Feb - March
- **Plant Characteristics:** Single type of bearing.
- **Fruit Characteristics:** Green with white stripes, Oval round.
- **Uniqueness:** High Yield.

BEETROOT



Step 1: Soil & Field Preparation

Soil: Soil: Well drained, fairly light fertile loam with fair moisture holding capacity is ideal. pH : 6.5 -7.

Container Selection: Beets grow well in Raised beds. Beets need a pot that's ten inches deep at the very least, so the roots have plenty of room to grow and stretch.



Soil Type & Preparation



Raised Bed



Container Selection

Step 2: Seedling Production

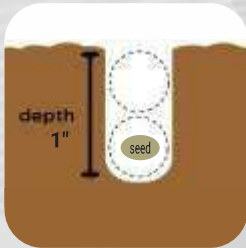
Sowing Method: Direct

Sowing Depth (inches): 1

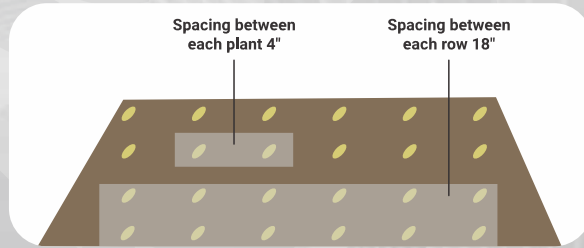
Sowing Distance (inches/feet): Between Seeds – 4" ; Between Rows – 18"



Sowing Method



Sowing Depth



Sowing Distance

Step 3: Planting Procedure

Feed & Watering:

◇ Mulch and water well. Beets need to maintain plenty of moisture in order to grow well.

◇ Supplementing with extra fertilizer is usually not necessary.



Feed and Watering



Fertilizer

Spot:

◇ Sun or partial shade.



Temperature & Humidity:

◇ Ideal temperature would be between 7°C and 25°C (44-77 F).

◇ Ideal Humidity would be 95%.



Key Pests & Diseases



Beet Leafhopper



Alternaria Leaf Spot



Bacterial Leaf Spot



Beet Mosaic Virus



Downy Mildew



Fusarium Root Rot



Aphids



Blister Beetles

Step 5: Harvesting

Days to harvest – 80-90 days

◇ Do not let greens grow above 6 inches before harvesting. Pull roots when they become plump.



Features



- **Sowing Cycle :** May end to Februray mid.
- **Plant Characteristics :** Erect, Healthy, Attractive Crown.
- **Fruits Characteristics :** Dark Red Flesh, Bolting Tolerance is good.
- **Uniqueness-** Processing and fresh market consumption.

Cauliflower



Step 1: Soil & Field Preparation

Soil Type & Preparation: Well drained, fairly light fertile loam with fair moisture holding capacity is ideal. pH:5.8-6.8, deep ploughing and harrowing.

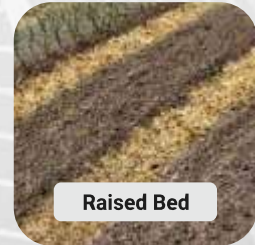
Container Selection: Cauliflower grow well in containers, and raised beds



Soil Type & Preparation



Pots



Raised Bed

Container Selection

Step 2: Seedling Production

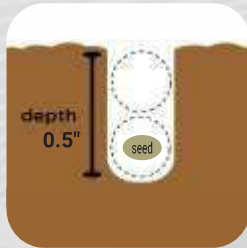
Sowing Method: Direct

Sowing Depth (inches): 0.5

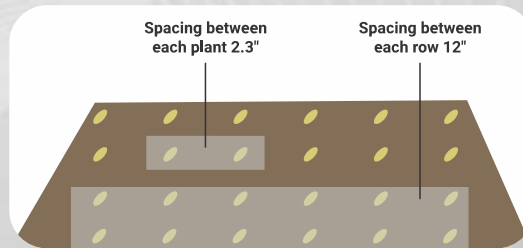
Sowing Distance (inches/feet): Between Seeds – 2.3" ; Between Rows – 12"



Sowing Method



Sowing Depth



Sowing Distance

Step 3: Planting Procedure

Watering:

◇ Water the seedlings regularly throughout the growing season. Remember to mulch to keep the soil surface cool.



Watering

Spot:

◇ The crop yields best produce in full sun.



Temperature:

◇ Ideal temperature for germination would be 12 to 29 degree C [55 F to 85 F].



Step 4: Pests and Diseases

Key Pests & Diseases



Aphids (General)



Cabbage worm



Leaf spot



Downy Mildew

Step 5: Harvesting

Ready for harvesting 60-150 days after transplanting.:

We can harvest cauliflowers by the time the heads have reached the suitable size of the variety.



Harvesting

Features



- **Sowing Cycle : March- June**
- **Plant Characteristics: Semi erect, medium plant frame, bluish green leaf**
- **Leaf Characteristics: Attractive Green.**
- **Uniqueness: Wider adaptability**

Cabbage



Step 1: Soil & Field Preparation

Soil Type & Preparation: Well drained, fairly light fertile loam with fair moisture holding capacity is ideal. pH:5.8-6.8, deep ploughing and harrowing.

Container Selection: Cabbage grow well in containers, and raised beds



Soil Type & Preparation



Pots



Raised Bed

Container Selection

Step 2: Seedling Production

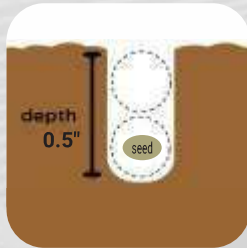
Sowing Method: Direct

Sowing Depth (inches): 0.5

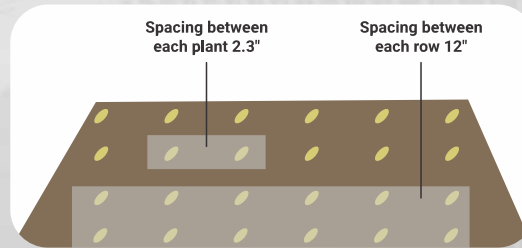
Sowing Distance (inches/feet): Between Seeds – 2.3" ; Between Rows – 12"



Sowing Method



Sowing Depth



Sowing Distance

Step 3: Planting Procedure

Watering:

◇ Water the seedlings regularly throughout the growing season. Remember to mulch to keep the soil surface cool.



Watering

Spot:

◇ The crop yields best produce in full sun.



Temperature:

◇ Ideal temperature for germination would be 12 to 29 degree C [55 F to 85 F].



Step 4: Pests and Diseases

Key Pests & Diseases



Aphids (General)



Cabbage worm



Soft Rot



Downy Mildew

Step 5: Harvesting

Ready for harvesting 60-100 days after transplanting.:

Harvest head cabbage when heads are well-formed and firm. Harvest head cabbage by cutting the base with a sharp knife.



Harvesting

Features



- **Sowing Cycle : March- June**
- **Plant Characteristics: Semi erect, medium plant frame, bluish green leaf**
- **Leaf Characteristics: Attractive Green.**
- **Uniqueness: Wider adaptability**

HOT PEPPER



Step 1: Soil & Field Preparation

Soil Type & Preparation: Well drained, fairly light fertile loam with fair moisture holding capacity is ideal. pH : 6.5 -7, deep ploughing and harrowing.

Container Selection: Hot pepper grow well in containers, raised beds & grow bags.



Soil Type & Preparation



Pot



Raised Bed



Grow Bags

Container Selection

Step 2: Seedling Production

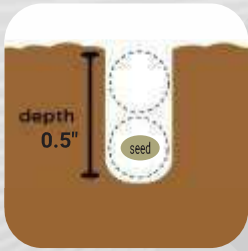
Sowing Method: Transplant (Use the seedling tray for sowing your seeds).

Sowing Depth (inches): 0.5

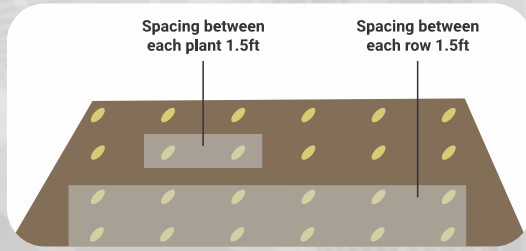
Sowing Distance (inches/feet): Between Seeds – 1.5 ft ; Between Rows – 1.5 ft



Sowing Method



Sowing Depth



Sowing Distance

◇ Cover the seeds with soil and compress it by hand.

◇ Sprinkle the water to make it moist. Do not wet the soil by over watering it.

◇ Once sowing is done, keep your seedling tray indoor in such a way that it should get sunlight at least 4 to 5 hours a day.

Step 3: Planting Procedure

Transplant:

◇ Chillies can be transplanted when 4 to 6 inches tall.



Transplanting

Watering:

◇ Seeds need to be watered on a daily basis, so that the soil remains moist at all times. Mulching can be done to reduce the number of weeds.



Spot:

◇ They prefer a spot that receives plenty of sun.



Temperature & Humidity:

◇ Hot peppers grow best where air temperature ranges from 21°C to 35°C (70° to 95°F).



Key Pests and Key Diseases



Aphids



Armyworm



Flea Beetles



Leafminers



Phytophthora Blight



Fusarium Wilt



Leaf Curl Virus



Fruit Rot & Die Back

Step 5: Harvesting

Days to harvest – 60 - 95 days

◇ Pick hot peppers when they have attained full size and are of mature colour.



Features



- **Sowing Cycle :** May-August/ September - October/ February- March
- **Plant Characteristics :** Erect, Light green- small leaves, excellent fruit setting
- **Fruits Characteristics :** Light green, Medium to High pungency, excellent test weight
- **Uniqueness-** Heat tolerance, very good yield

French Bean



Step 1: Soil & Field Preparation

Soil Type & Preparation: Well drained, fairly light fertile loam with fair moisture holding capacity is ideal. pH : 6.5 -7, deep ploughing and harrowing.

Container Selection: French Bean grow well in containers, raised beds & grow bags.



Soil Type & Preparation



Pot



Raised Bed



Grow Bags

Container Selection

Step 2: Seedling Production

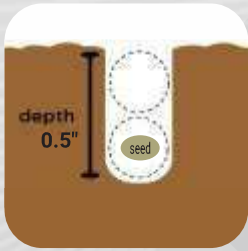
Sowing Method: Transplant (Use the seedling tray for sowing your seeds).

Sowing Depth (inches): 0.5

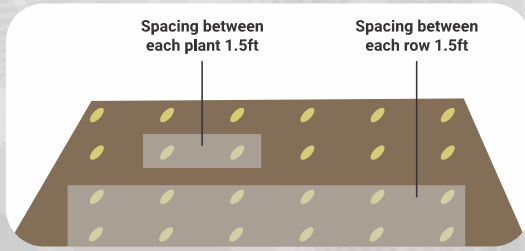
Sowing Distance (inches/feet): Between Seeds – 1.5 ft ; Between Rows – 1.5 ft



Sowing Method



Sowing Depth



Sowing Distance

◇ Cover the seeds with soil and compress it by hand.

◇ Sprinkle the water to make it moist. Do not wet the soil by over watering it.

◇ Once sowing is done, keep your seedling tray indoor in such a way that it should get sunlight at least 4 to 5 hours a day.

Step 3: Planting Procedure

Transplant:

French bean can be transplanted when 4 to 6 inches tall.



Transplanting

Watering:

◇ Seeds need to be watered on a daily basis, so that the soil remains moist at all times. Mulching can be done to reduce the number of weeds.



Spot:

◇ They prefer a spot that receives plenty of sun.



Temperature & Humidity:

◇ **French Bean** grow best where air temperature ranges from 21°C to 35°C (70° to 95°F).



Key Pests and Key Diseases



Aphids



Armyworm



Flea Beetles



Leafminers



Phytophthora Blight



Fusarium Wilt



Leaf Curl Virus



Fruit Rot & Die Back

Step 5: Harvesting

Days to harvest – 60 - 95 days

◇ Pick French Bean when they have attained full size and are of mature colour.



Features



- **Sowing Cycle : June-Feb**
- **Plant Characteristics: Determinate-Busy**
- **Pod Characteristics: Attractive Green Pod.**
- **Uniqueness: Tender Fruit, High Self Life.**

OKRA



Step 1: Soil & Field Preparation

Soil Type & Preparation: Well drained, fairly light fertile loam with fair moisture holding capacity is ideal. pH : 6.5 -7.

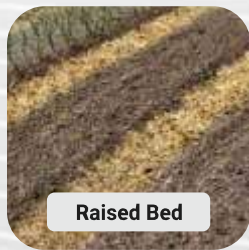
Container Selection: Okra grow well in Container/Pot, Raised Beds & Grow bags.



Soil Type & Preparation



Pot



Raised Bed



Grow Bags

Container Selection

Step 2: Seedling Production

Sowing Method: Direct

Sowing Depth (inches): 0.5

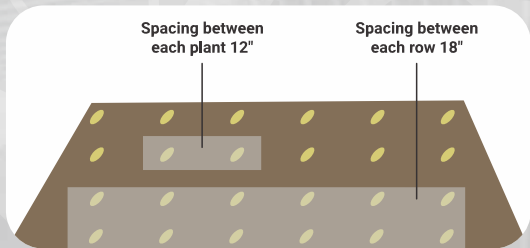
Sowing Distance (inches/feet): Between Seeds – 12" ; Between Rows – 18"



Sowing Method



Sowing Depth



Sowing Distance

◇ Cover the seeds with soil and compress it by hand.

◇ Sprinkle the water to make it moist. Do not wet the soil by over watering it.

◇ Once sowing is done, keep your seedling tray indoor in such a way that it should get sunlight at least 4 to 5 hours a day.

Step 3: Planting Procedure

Watering:

◇ Although okra is somewhat drought-tolerant, giving the plants about 1 litre of water per week is ideal. Mulch well to conserve moisture and prevent weeds.

◇ Prune the tops of okra plants when they reach 5 to 6 feet tall. This will result in more side branches. Prune those as needed.



Watering



Pruning

Spot:

◇ Choose the sunniest place in the garden to grow okra.



Temperature & Humidity:

◇ The temperature must be around 23-35 C (75 to 95 F) ideally.



Step 4: Pests and Diseases

Key Pests & Diseases



Step 5: Harvesting

Days to harvest – 45-50 days

◇ Harvest the okra when it's about 2 to 3 inches long every other day.



Harvesting

Features



- **Sowing Cycle** : Jun to Nov
- **Plant Characteristics** : Dark green, dwarf, very short internodal, close bearing plant.
- **Fruits Characteristics** : Green-Dark Green, very good test weight.
- **Uniqueness-** Wider adoptability, high yielder.

BOTTLE GOURD



Step 1: Soil & Field Preparation

Soil Type & Preparation: Well drained, fairly light fertile loam with fair moisture holding capacity is ideal. pH : 5.5 -6.8.

Container Selection: Bottle Gourd grow well in large container/pot, raised beds & big grow bags.



Soil Type & Preparation



Pot



Raised Bed



Grow Bags

Container Selection

Step 2: Seedling Production

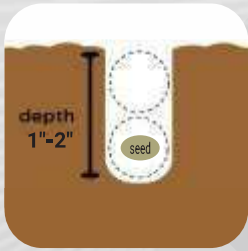
Sowing Method: Direct

Sowing Depth (inches): 1-2

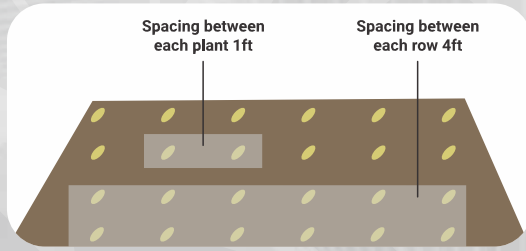
Sowing Distance (inches/feet): Between Seeds – 1ft ; Between Rows – 4ft



Sowing Method



Sowing Depth



Sowing Distance

Step 3: Planting Procedure

Feed & Watering:

- ◇ Keep the soil constantly moist.
- ◇ Spread 10-10-10 fertilizer after 6–8 weeks of growing.
- ◇ Prune vines when they're 8 feet (2.4 m) long to encourage fruiting.



Watering



Fertilizer



Pruning

Spot:

◇ Ideally, the plant should receive 8 hours of sunlight per day to thrive.



Temperature & Humidity:

◇ Bottle gourd requires a minimum temperature of 18 C (65 F) during early growth, but optimal temperatures are in the range of 24–27 C (75-80 F).



Staking:

◇ Install a vertical trellis for proper support. You can also use ropes and wires. In the absence of adequate support, the plant may result in lower fruits.



Vertical Trellis

Step 4: Pests and Diseases

Key Pests & Diseases



Fruit fly



Shoot & fruit borer



Aphids & Spider Mites



Beetles & Caterpillars



Nematode



Leaf spot



Powdery mildew



Downey mildew

Step 5: Harvesting

Days to harvest – 55-60 days

◇ Harvest your gourds after their stems turn brown and vines wither.



Harvesting

Features



- **Sowing Cycle : August to March**
- **Plant Characteristics : Healthy, Strong, Spreading branch**
- **Fruits Characteristics : Medium glossy, Uniform, Smooth, Long fruits**
- **Uniqueness- High yield, uniform fruiting**

Pumpkin



Step 1: Soil & Field Preparation

Soil Type & Preparation: Well drained, fairly light fertile loam with fair moisture holding capacity is ideal. pH : 5.5 -6.8.



Soil Type & Preparation



Pot



Raised Bed



Grow Bags

Container Selection

Step 2: Seedling Production

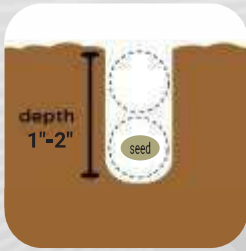
Sowing Method: Direct

Sowing Depth (inches): 1-2

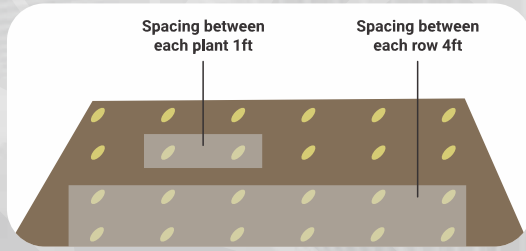
Sowing Distance (inches/feet): Between Seeds – 1ft ; Between Rows – 4ft



Sowing Method



Sowing Depth



Sowing Distance

Step 3: Planting Procedure

Feed & Watering:

- ◇ Keep the soil constantly moist.
- ◇ Spread 10-10-10 fertilizer after 6–8 weeks of growing.
- ◇ Prune vines when they're 8 feet (2.4 m) long to encourage fruiting.



Watering



Fertilizer



Pruning

Spot:

◇ Ideally, the plant should receive 8 hours of sunlight per day to thrive.



Temperature & Humidity:

Pumpkin requires a minimum temperature of 18 C during early growth and optimum temperature of 24-27 C



Staking:

◇ Install a vertical trellis for proper support. You can also use ropes and wires. In the absence of adequate support, the plant may result in lower fruits.



Vertical Trellis

Step 4: Pests and Diseases

Key Pests & Diseases



Aphids



Snail



Antracnose



Cucumber mosaic Virus

Step 5: Harvesting

Days to harvest – 55-60 days

◇ Harvest your gourds after their stems turn brown and vines wither.



Features



- **Sowing Cycle : July- March**
- **Plant Characteristics: Dark green long vine, medium dense canopy, medium intense female flowers.**
- **Fruit Characteristics: Dark green with light green stripes, very firm, thick cream flesh.**
- **Uniqueness: Glossy fruit with high shelf life.**

CUCUMBER



Step 1: Soil & Field Preparation

Soil Type & Preparation: Well drained, fairly light fertile loam with fair moisture holding capacity is ideal. pH : 7.

Container Selection: Cucumber grow well in large container/pot, raised beds & big grow bags.



Soil Type & Preparation



Pot



Raised Bed



Grow Bags

Container Selection

Step 2: Seedling Production

Sowing Method: Direct

Sowing Depth (inches): 0.5

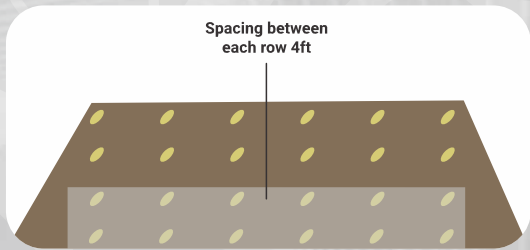
Sowing Distance (inches/feet): Between Rows – 4 ft



Sowing Method



Sowing Depth



Sowing Distance

Step 3: Planting Procedure

Watering:

◇ When seedlings emerge, begin to water frequently, and increase to a gallon per week after fruit forms. Water at the soil level.

◇ Mulches can be used to conserve soil moisture and black plastic mulch has the advantage of warming the soil.



Watering

Spot:

◇ Select a site full of sunlight.



Temperature:

◇ The soil must be at least 65°F for germination with a bottom heat of about 70°F (21°C).



Support:

◇ Cucumber vines are sprawling and require plenty space to grow. Vines can be trained to grow on a trellis or fence. Providing burpless varieties with vertical support allows the fruits to hang loose and grow straight.



Trellis and Fence

Step 4: Pests and Diseases

Key Pests & Diseases



Cucumber Beetles



Aphids



Squash bugs



Whiteflies



Anthracnose



Cucumber mosaic virus



Downy mildew



Powdery mildew

Step 5: Harvesting

Days to harvest – 50-70 days

◇ Cucumbers are best picked before their seeds become hard and are eaten when immature. Do not let them get brown. A cucumber is of the highest quality when it is uniformly green, steady and snappy. Use a knife or clippers to cut the fruit off the plant. Pulling it may damage the vine.



Harvesting

Features



- **Sowing Cycle :** June to February
- **Plant Characteristics :** Vigorous, Medium length, Solitary bearing
- **Fruits Characteristics :** Bi-color, dark green base, green striped, glossy, firm, small seed cavity, light green colour flesh, crisp, very good taste
- **Uniqueness-** Wader sowing window, high yield, heat set.

Bitter Gourd



Step 1: Soil & Field Preparation

Soil Type & Preparation: Well drained, fairly light fertile loam with fair moisture holding capacity is ideal. pH : 7.

Container Selection: Bitter gourd grows well in large container/pot, raised bed and big grown bags



Soil Type & Preparation



Pot



Raised Bed



Grow Bags

Container Selection

Step 2: Seedling Production

Sowing Method: Direct

Sowing Depth (inches): 0.5

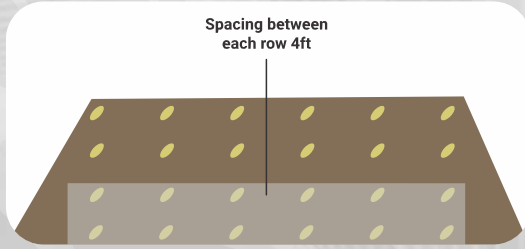
Sowing Distance (inches/feet): Between Rows – 4 ft



Sowing Method



Sowing Depth



Sowing Distance

Step 3: Planting Procedure

Watering:

◇ When seedlings emerge, begin to water frequently, and increase to a gallon per week after fruit forms. Water at the soil level.

◇ Mulches can be used to conserve soil moisture and black plastic mulch has the advantage of warming the soil.



Watering

Spot:

◇ Select a site full of sunlight.



Temperature:

◇ The soil must be at least 65°F for germination with a bottom heat of about 70°F (21°C).



Support:

◇ Install a vertical trellis for proper support. You can also use ropes and wires. In the absence of adequate support, the plant may result in lower fruits.



Trellis and Fence

Step 4: Pests and Diseases

Key Pests & Diseases



Cucumber Beetles



Aphids



Squash bugs



Whiteflies



Anthracnose



Cucumber mosaic virus



Downey mildew



Powdery mildew

Step 5: Harvesting

Days to harvest – 50-70 days

◇ Bittergourd are best picked before their seeds become hard and are eaten when immature. Do not let them get brown. Bittergourd is of the highest quality when it is uniformly green, steady and snappy. Use a knife or clippers to cut the fruit off the plant. Pulling it may damage the vine.



Harvesting

Features



- **Sowing Cycle :** August - March
- **Plant Characteristics:** Dark green long vine, medium dense canopy, high intense female flowers and fruit setting.
- **Fruit Characteristics:** Long, Dark Green to Green, bitterness medium
- **Uniqueness:** Wider adaptability.

Ridge Gourd



Step 1: Soil & Field Preparation

Soil Type & Preparation: Well drained, fairly light fertile loam with fair moisture holding capacity is ideal. pH : 7.

Container Selection: Ridge gourd grows well in large container/pot, raised bed and big grown bags



Soil Type & Preparation



Pot



Raised Bed



Grow Bags

Container Selection

Step 2: Seedling Production

Sowing Method: Direct

Sowing Depth (inches): 0.5

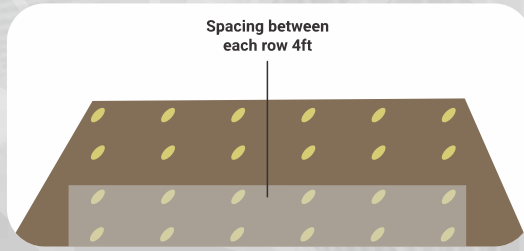
Sowing Distance (inches/feet): Between Rows – 4 ft



Sowing Method



Sowing Depth



Sowing Distance

Step 3: Planting Procedure

Watering:

◇ When seedlings emerge, begin to water frequently, and increase to a gallon per week after fruit forms. Water at the soil level.

◇ Mulches can be used to conserve soil moisture and black plastic mulch has the advantage of warming the soil.



Watering

Spot:

◇ Select a site full of sunlight.



Temperature:

◇ The soil must be at least 65°F for germination with a bottom heat of about 70°F (21°C).



Support:

◇ Install a vertical trellis for proper support. You can also use ropes and wires. In the absence of adequate support, the plant may result in lower fruits.



Trellis and Fence

Step 4: Pests and Diseases

Key Pests & Diseases



Cucumber Beetles



Aphids



Squash bugs



Whiteflies



Anthracnose



Cucumber mosaic virus



Downey mildew



Powdery mildew

Step 5: Harvesting

Days to harvest – 50-70 days

◇ Ridge Gourd are best picked before their seeds become hard and are eaten when immature. Do not let them get brown Ridge Gourd is of the highest quality when it is uniformly green, steady and snappy. Use a knife or clippers to cut the fruit off the plant. Pulling it may damage the vine.



Harvesting

Features



- Sowing Cycle :May -Feb
- Plant Characteristics: Strong, Vigorous, Dark Green Foliage
- Fruit Characteristics: Long, Deep ridged, attractive green
- Uniqueness: Wider adaptability.

Sponge Gourd



Step 1: Soil & Field Preparation

Soil Type & Preparation: Well drained, fairly light fertile loam with fair moisture holding capacity is ideal. pH : 7.

Container Selection: Sponge gourd grows well in large container/pot, raised bed and big grown bags



Soil Type & Preparation



Pot



Raised Bed



Grow Bags

Container Selection

Step 2: Seedling Production

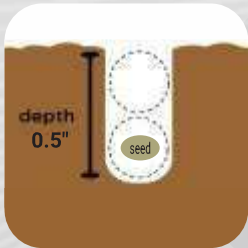
Sowing Method: Direct

Sowing Depth (inches): 0.5

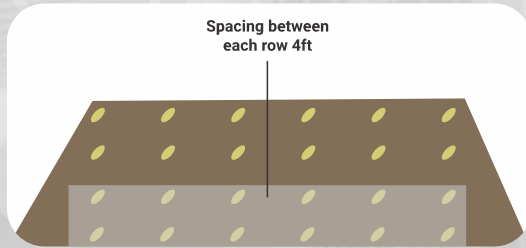
Sowing Distance (inches/feet): Between Rows – 4 ft



Sowing Method



Sowing Depth



Sowing Distance

Step 3: Planting Procedure

Watering:

◇ When seedlings emerge, begin to water frequently, and increase to a gallon per week after fruit forms. Water at the soil level.

◇ Mulches can be used to conserve soil moisture and black plastic mulch has the advantage of warming the soil.



Watering

Spot:

◇ Select a site full of sunlight.



Temperature:

◇ The soil must be at least 65°F for germination with a bottom heat of about 70°F (21°C).



Support:

◇ Install a vertical trellis for proper support. You can also use ropes and wires. In the absence of adequate support, the plant may result in lower fruits.



Trellis and Fence

Step 4: Pests and Diseases

Key Pests & Diseases



Cucumber Beetles



Aphids



Squash bugs



Whiteflies



Anthracnose



Cucumber mosaic virus



Downey mildew



Powdery mildew

Step 5: Harvesting

Days to harvest – 50-70 days

◇ Sponge Gourd best picked before their seeds become hard and are eaten when immature. Do not let them get brown. A Sponge Gourd of the highest quality when it is uniformly green, steady and snappy. Use a knife or clippers to cut the fruit off the plant. Pulling it may damage the vine.



Harvesting

Features



- **Sowing Cycle :**Jan-Feb/ June-July
- **Plant Characteristics:** Thick vigorous stem, dense canopy, short to medium long vine , very high female flowers.
- **Fruit Characteristics:** Dark green, glossy, greenish white flesh colour.
- **Uniqueness:** High Yield.

Watermelon



Step 1: Soil & Field Preparation

Soil Type & Preparation: Well drained, fairly light fertile loam with fair moisture holding capacity is ideal. pH : 7.

Container Selection: Watermelon grows well in large container/pot, raised bed and big grown bags



Soil Type & Preparation



Pot



Raised Bed



Grow Bags

Container Selection

Step 2: Seedling Production

Sowing Method: Direct

Sowing Depth (inches): 0.5

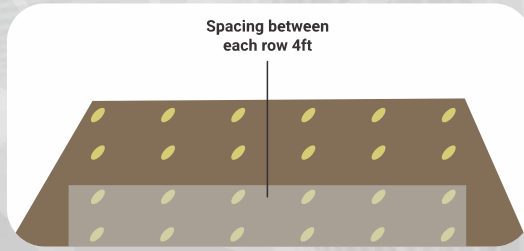
Sowing Distance (inches/feet): Between Rows – 4 ft



Sowing Method



Sowing Depth



Sowing Distance

Step 3: Planting Procedure

Watering:

◇ When seedlings emerge, begin to water frequently, and increase to a gallon per week after fruit forms. Water at the soil level.

◇ Mulches can be used to conserve soil moisture and black plastic mulch has the advantage of warming the soil.



Watering

Spot:

◇ Select a site full of sunlight.



Temperature:

◇ The soil must be at least 65°F for germination with a bottom heat of about 70°F (21°C).



Support:

Old nylons or T-shirts, cheesecloth, and netted fabric are all good choices; a fabric that breathes and stretches to accommodate the growing melon is best.



Trellis and Fence

Step 4: Pests and Diseases

Key Pests & Diseases



Cucumber Beetles



Aphids



Squash bugs



Whiteflies



Anthracnose



Cucumber mosaic virus



Downy mildew



Powdery mildew

Step 5: Harvesting

Days to harvest – 50-70 days

◇ Watermelon are best picked before their seeds become hard and are eaten when immature. Do not let them get brown. A Watermelon is of the highest quality when it is uniformly green, steady and snappy. Use a knife or clippers to cut the fruit off the plant. Pulling it may damage the vine.



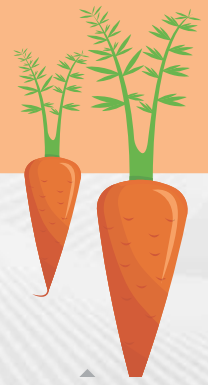
Harvesting

Features



- **Sowing Cycle : Aug- Feb**
- **Plant Characteristics: Dark Green Foliage, 2-3 branches, 1-2 fruit plants.**
- **Fruit Characteristics: Sugar baby type, uniform, deep red flesh, TSS 11.3- 12.5% brix.**
- **Uniqueness: High Yield.**

CARROT



Step 1: Soil & Field Preparation

Soil Type & Preparation: Well drained, fairly light fertile loam with fair moisture holding capacity is ideal. pH: 6-7, deep ploughing and harrowing.

Container Selection: Carrots grow well in containers & raised beds.



Soil Type & Preparation



Pot



Raised Bed

Container Selection

Step 2: Seedling Production

Sowing Method: Direct

Sowing Depth (inches): 0.25

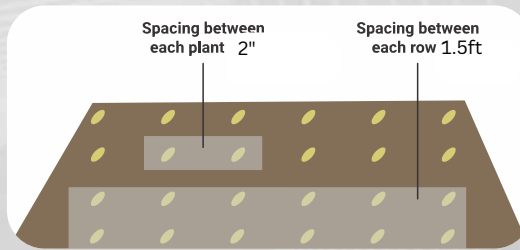
Sowing Distance (inches/feet): Between Seeds – 2" ; Between Rows – 1.5ft



Sowing Method



Sowing Depth



Sowing Distance

Step 3: Planting Procedure

Feed and Watering:

◇ Water regularly and evenly to keep the soil slightly moist and never allow the soil to dry out completely. Avoid waterlogging the pots.

◇ To encourage root growth, use a fertilizer that is low in nitrogen but high in phosphorous and potassium.



Watering

Spot:

◇ Carrots need 6-8 hours of sunlight each day to grow well.



Temperature:

◇ Carrots best germinate and grow when the temperature is between (15 – 25 C).



Step 4: Pests and Diseases

Key Pests & Diseases



Aphids



Carrot rust fly



Flea beetle



Carrot weevil



Alternaria leaf blight



Cercospora leaf blight



Cottony rot



Powdery mildew

Step 5: Harvesting

Days to harvest – 75-80 days

◇ Before picking, see whether your carrots have reached the desired size or not by uprooting a couple of plants.



Harvesting

Features



- **Sowing Cycle : June to February**
 - **Plant Characteristics : Erect, Uniform, Attractive Crown**
 - **Fruits Characteristics : Uniform, Attractive, Deep Orange Red, Crispy, Excellent Sweet Taste**
 - **Uniqueness- Excellent Shape, Very High Shelf Life**
- Steps of growing**

RADISH

Step 1: Soil & Field Preparation

Soil Type & Preparation: Well drained, fairly light fertile loam with fair moisture holding capacity is ideal. pH : 5.8 -6.8, deep ploughing and harrowing.

Container Selection: Radish grow well in round container/pot & raised beds.



Soil Type & Preparation

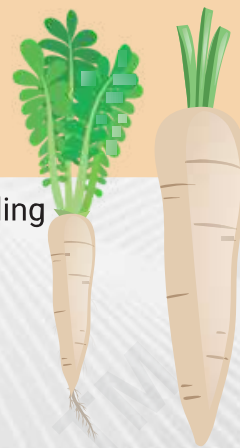


Pot



Raised Bed

Container Selection



Step 2: Seedling Production

Sowing Method: Direct

Sowing Depth (inches): 0.5

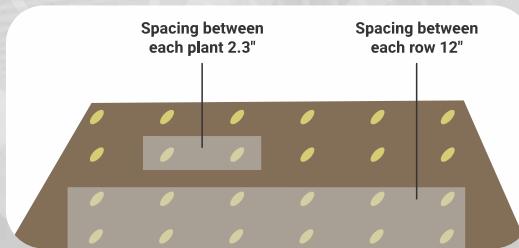
Sowing Distance (inches/feet): Between Seeds – 2.3" ; Between Rows – 12"



Sowing Method



Sowing Depth



Sowing Distance

Step 3: Planting Procedure

Watering:

◇ Radish seeds should be planted in moist soil during mid-autumn. Infrequent watering gives radishes a woody texture and a hot taste.



Watering

Spot:

◇ The crop yields best produce in full sun.



Temperature:

◇ Ideal temperature for germination would be 12 to 29 degree C [55 F to 85 F].



Step 4: Pests and Diseases

Key Pests & Diseases



Aphids



Cabbage root maggot



Slug



Alternaria Leaf Spot



White rust



Downy mildew

Step 5: Harvesting

Days to harvest – 40-45 days

◇ Radishes are quick to harvest, as rapidly as three weeks after planting.

◇ They should be harvested promptly as over-mature radishes become woody and develop a bitter taste.



Harvesting

Features



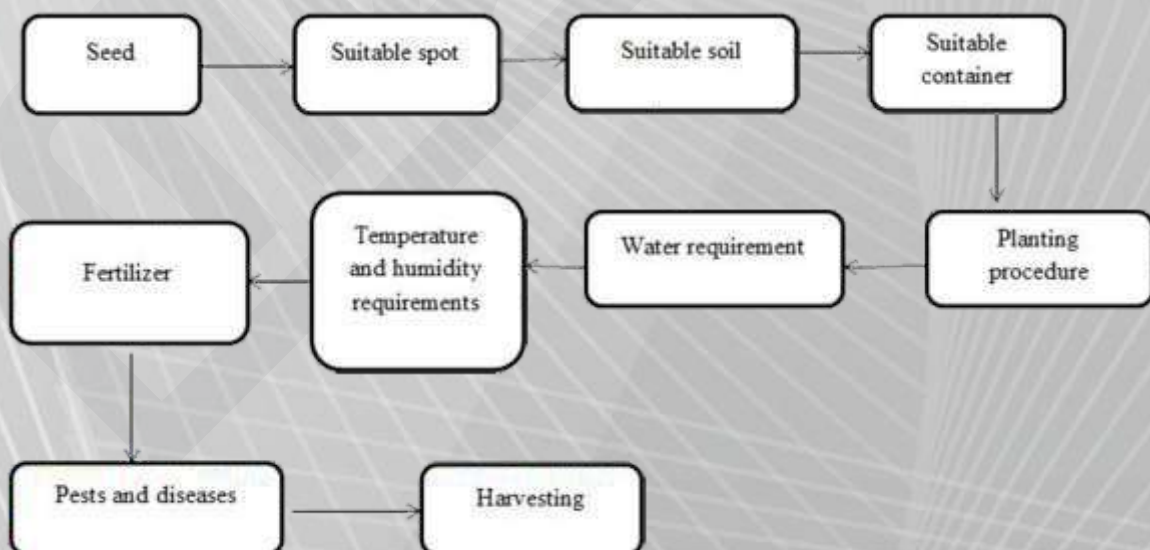
- **Sowing Cycle : June to October**
- **Plant Characteristics : Attractive green crown with cut leaves**
- **Fruits Characteristics : White smoothly root, very good field holding capacity**
- **Uniqueness- Roots are uniform and long shelf life**

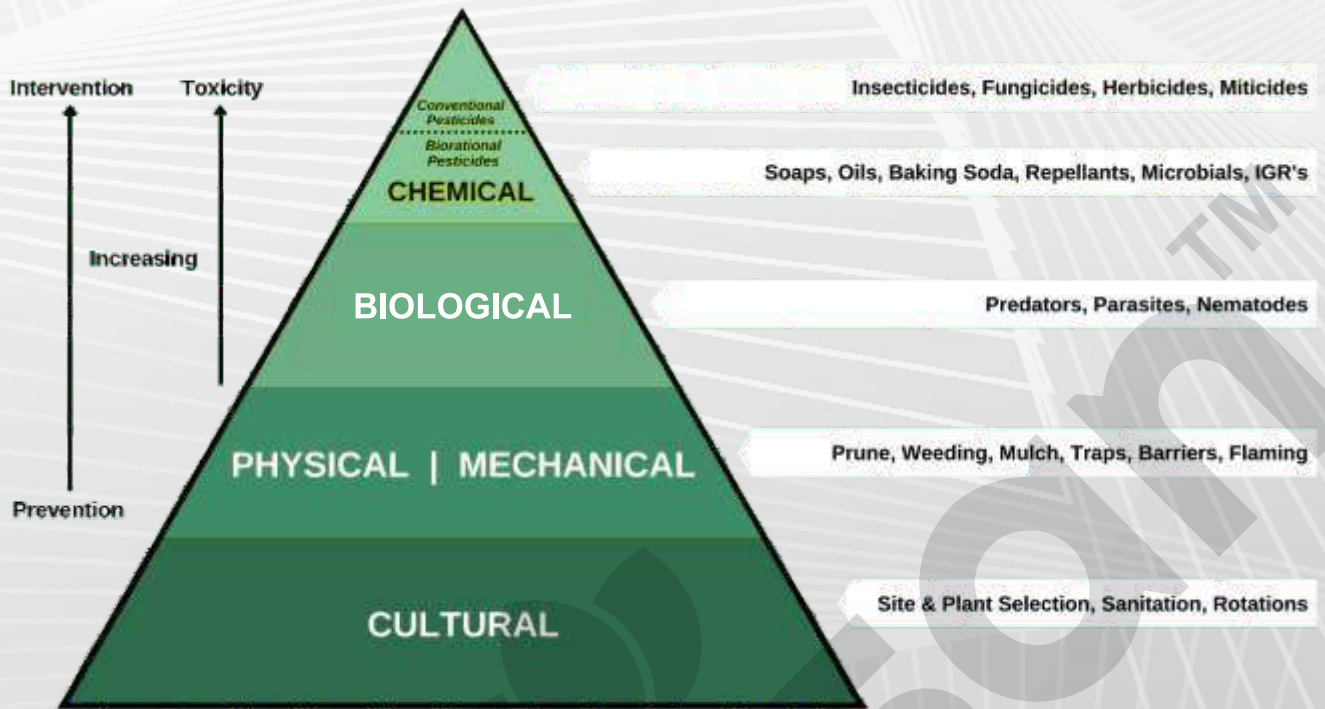
General Information

Essential Starter Equipment



Sowing to Harvesting Cycle





Sl. No	Insecticide	Pests
1	Deltamethrin 2.8% EC	Sucking pests and Semi-loope
2	Imidachloprid 48% SL/FS	Sucking pests Jassids, Aphids, Whitefly and Thrips
3	Imidachloprid 70% WG /	Sucking pests, Hoppers, Termites
4	Lambda Cyhalothrin 2.5% EC	Fruit borer, Jassid, Thrips Leaf Roller, Stem Borer, hoppers, Gall midge, Hispa and Thrips
5	Acetamiprid 20% SP	Jassids, Thrips, Aphids whitefly, Beetle, hoppers, Fruit Moth, Leafhoppers, Leaf Miners, Plant Bugs
6	Cypermethrin 10% EC	Jassid, Thrips, Shoot & Fruit Borer, Jassid
7	Deltamethrin 2.8% EC	Sucking pests, thrips, leaf roller, semi-looper, shoot & fruit borer, Jassid, leaf miner, fruit borer, and, shoot and fruit borer in pod borer and pod fly
8	Fipronil 5% SC	Thrips, Aphids, fruit borer, early root and shoot borer



Initiative by:



For any queries please contact:

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**GROW
GUIDE**