

# **PRODUCTION GUIDELINES FOR SWEET PEPPERS**

## **High vitamin C content**

### **1. ECOLOGICAL CONSIDERATIONS**

Suitability - (temperature, rainfall and altitude)

#### **a. Temperature**

- Tolerates a wide range of temperatures
- Temperature ranges of 23 degrees to 27 degrees Celsius and 15 degrees to 18 degrees Celsius are ideal.
- Generally better suited to withstand high temperatures than low temperatures.

#### **b. Rainfall**

- Best grown using irrigation
- However, ideal rainfall is 600 millimeters during the production period.
- During the first month after transplanting, crop should not face any drought.

#### **c. Altitude**

- Can grow from sea level to 1,600 meters above sea level.
- Avoid cultivation during extremely hot periods in lower areas.

### **2. SITE SELECTION**

#### **a. Soil type and analysis**

- Well draining soils and medium to heavy soils — such as clay loams or sandy loams — are suitable.
- pH levels between 5.3-6.8 are ideal.

#### **b. Water proximity**

- If possible, a site near a water source is ideal.

#### **c. Topography**

- Ideal topography is relatively level.
- Sloped land can also be used with proper contouring.

### **3. CROP PLANNING**

#### **a. Farm layout**

- Plan land use around a crop mix that will enable crop rotation.

#### **b. Crop rotation.**

- Very necessary to avoid disease buildup.
- Rotate with crops that belong in the same family as sweet peppers (Solanaceae).

#### **c. Record keeping**

- A very important exercise or tool that needs to be used by all farmers. Any activity undertaken should be recorded.

#### **d. Marketing**

- Necessary to know where the product will be sold and the likely price.

### **4. NURSERY OPERATIONS**

#### **a. Area selection**

- When possible, select virgin land for the nursery.
- Site should be close to a water source.
- Should be protected from interference.

#### **b. Preparation**

- The area should be thoroughly ploughed to a depth of at least 15 centimeters, two weeks in advance.
- Solarization treatment is recommended.
- The soil should then be prepared to a fine tilth.
- Remove all trash and clods.
- Incorporate well-cured manure and DAP.
- Some types of soils will require the addition of sand.
- Measure a bed one meter wide and of suitable length.
- The modern nursery incorporates the use of seedling plugs or trays and as such, you can avoid the beds by using the trays.
- When trays are used, make sure ground or bench is level.

#### **c. Sowing**

- Before sowing in the nursery, wet soil thoroughly using a rose sieve.
- Depth of seed sowing depends on size of seed.
- In beds, drill seeds in lines thinly (15 centimeters apart).
- In the plugs, put one seed per hole.
- Then cover with a layer of media.

#### d. Management

- After sowing, the beds should be covered with either a Hessian cloth or grass mulch.
- Use a shade net or another material to provide shade.
- Watering can be done daily during the morning or the evening using a rose sieve. But, it is always advisable to check the moisture content before irrigation twice daily
- Germination is likely from the sixth day onward. Once germination begins, remove the cloth or mulch to be left with a 50 percent to 70 percent shade.
- Watering pattern remains same.
- In the last week before transplanting, remove all shade, reduce watering frequency and apply root guard.

### 5. MAIN SITE PREPARATION

#### a. Ploughing

- Disc plough 8 inches deep or more 2-3 weeks before planting. Use a jembe, animal-drawn plough or tractor-drawn plough.

#### b. Harrowing

- Should be done to achieve a fine surface 2 to 3 weeks after ploughing.

#### c. Beds

- Make beds 1 meter wide and any length, depending on the length of the field.

#### d. Spacing

- Sweet peppers can be spaced at 30 to 60 centimeters apart by 60 to 90 centimeters apart.
- Will also depend on variety being grown.

#### e. Starter solutions

- There are various starter solutions available that can be used at planting time to enhance startup. Starter solutions include root guard and kickstart.

### 6. TRANSPLANTING

#### a. Timing

- At four weeks old, begin the hardening process (by reducing watering frequency, removing shade, etc.) also start application of root guard.
- One hour before transplanting, wet the nursery.
- Transplant in the evening to reduce shock. The plants should be six weeks old.

b. Depth

- The seedlings should be planted at the same depth as they were in the nursery.

## 7. CROP MANAGEMENT

a. Feeding/Fertilization.

- At planting, phosphorus and fertilizer should be added. The soil acidity will determine a suitable fertilizer.
- A top dressing should follow with a nitrogen fertilizer three weeks after planting.
- Follow with another top dressing around the flowering stage.

b. Manuring

- It is advisable to incorporate manure during land preparation or at planting time. Aim for about 10 to 30 tonnes per hectare.

c. Weeding

- Ensure field is weed free, thus regular weeding necessary.

d. Pest and Disease

- Scouting is important here.
- Common sweet pepper pests are red spidermites, American bollworm, aphids and white flies.
- Control the pests through regular scouting and correct selection and use of pesticides.
- The main sweet pepper diseases are powdery mildew and bacterial wilt.

e. Mulching

- Helps to reduce weed pressure, helps retain moisture and also helps maintain soil fertility.

## 8. HARVESTING

a. Stage

- 2½ to 3 months after transplanting, the sweet pepper will be ready for picking and can be done for another 2 to 3 months.

b. Specifications

- Would be determined by the type of market.

c. Postharvest handling

- Sweet peppers should be handled with care to avoid bruising.

- Should be packed in either wooden crates or bread crates with a standard weight to avoid bruising.

## **9. GROSS MARGIN ANALYSIS**

### a. Capital costs

- Note all the capital expenses incurred.

### b. Yield

- Record all yield data collected from field.

### c. Cost of production

- Any cost incurred during the production process should be recorded.

### d. Profits and losses

- Profits and losses equation: Multiply yield by sale price and subtract all production costs.