

Okra Production Technology: A Guide to Green Delights

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INTRODUCTION

Okra, also known as ladies' fingers or gumbo, is a popular warm-season vegetable prized for its delicious pods and impressive nutritional profile. Considered one of the most popular veggies to cultivate in kitchen gardens is okra. It contains a lot of vitamins and minerals. It is useful medicinally as well. Whether you're a seasoned farmer or a curious home gardener, mastering the art of okra production requires knowledge of several key aspects. Here's a comprehensive guide to the production technology of okra:

Choosing the Right Variety:

- ✚ Season: Select varieties suited to your climate and preferred season. Some popular choices include Clemson Spineless (summer), Pusa Sawani (rainy season), and Parbhani Kranti (long pods).
- ✚ Disease resistance: Opt for varieties resistant to common diseases like powdery mildew and yellow vein mosaic virus.
- ✚ Pod characteristics: Consider desired pod length, texture, and color.

Suitable Varieties and Hybrids

Includes Pusa Makhmali, Pusa Sawani, Seleccion-2, Red Bhindi, Panjab Padmini, Vaishali Vadhu, Varsha Uphar, Parbhani Kranti, and Arka Anamika.

Soil and climate

Okra can be cultivated in any type of soil, but it must be friable. However, it thrives in light soils, including sandy loam and loam. It can withstand slightly acidic soil. This crop thrives in tropical and subtropical environments where the growing season is lengthy, warm, and humid. It is frost sensitive and does not grow in freezing temperatures. At temperatures below 20°C, seeds do not germinate properly. The ideal temperature for the germination of seeds is 29 °C.

Land Preparation and Sowing:

- ✚ Soil pH: Okra thrives in well-drained, loamy soil with a pH between 6.0 and 7.0. Adjust soil pH if necessary.
- ✚ Manure and Fertilizers: Apply well-rotted manure or compost before sowing. Use balanced fertilizers like NPK 15:15:15 according to soil test recommendations.
- ✚ Sowing: Sow seeds directly in the field about 2-3 cm deep, spaced 30-45 cm apart in rows.

Seed Rate and Sowing time

A hectare of land requires 15-20 kg of seeds for spring, summer, and winter crops, and 8-10 kg for rainy season crops.

Crop for the summer: mid-February to mid-March

Crop of the rainy season: mid-May to mid-June

March to May in the hills area

Method of planting

Okra can be sown in rows using the dibbling method or by dropping seeds behind the plough furrow. During the wet season, sow it on ridges. For spring/summer Crop distance should be 30 × 45cm, and in the rainy season, 45 x 60cm.

Crop Management:

- ✚ Watering: Provide regular watering, especially during dry periods. Avoid waterlogging.
- ✚ Weeding: Control weeds manually or with organic mulches to prevent competition for nutrients and water.
- ✚ Staking: Taller varieties may benefit from staking to provide support and prevent pod damage.
- ✚ Pest and Disease Control: Monitor for common pests like aphids, whiteflies, and fruit borers. Use organic methods like insecticidal soap or neem oil whenever possible. Implement preventative measures like crop rotation and sanitation to control diseases.

- ✚ Okra, with its delicious pods and impressive nutritional profile, is a popular veggie, but unfortunately, it's not immune to pests and diseases. To ensure a bountiful harvest, implementing effective plant protection measures is crucial.

Preventive Measures:

- ✚ Crop Rotation: Avoid planting okra in the same spot for consecutive seasons as this can increase the risk of soil-borne diseases and pests. Rotate with non-susceptible crops like corn or legumes.
- ✚ Sanitation: Remove and destroy infected plant debris after harvest to prevent disease and pest overwintering.
- ✚ Strong Seedlings: Use healthy, disease-resistant seeds or seedlings to start your okra journey.
- ✚ Physical and Mechanical Control:
 - ✚ Row Covers: Use lightweight row covers to protect young seedlings from insects and harsh weather conditions.
 - ✚ Handpicking: For small infestations, remove pests like aphids or caterpillars manually.
 - ✚ Sticky Traps: Yellow sticky traps can attract and trap flying pests like whiteflies and thrips.
 - ✚ Organic Pesticides:
 - ✚ Neem Oil: This natural oil acts as an insecticide and fungicide, effective against various pests and diseases.
 - ✚ Soap Spray: Insecticidal soap can effectively control soft-bodied insects like aphids and whiteflies.
 - ✚ Bacillus thuringiensis (Bt): This bacterial insecticide specifically targets caterpillars and is safe for humans and beneficial insects.
 - ✚ Chemical Pesticides:
 - ✚ Use chemical pesticides as a last resort and only if absolutely necessary.

- ✚ Always follow the label instructions carefully and wear proper protective gear when applying.
- ✚ Opt for selective insecticides targeting specific pests to minimize harm to beneficial insects.
- ✚ Integrated Pest Management (IPM):
- ✚ The most effective approach to plant protection often involves a combination of these methods, known as Integrated Pest Management (IPM). By employing a multi-pronged strategy, you can create a less hospitable environment for pests and diseases, promoting a healthy and productive okra crop.
- ✚ Additional Tips:
- ✚ Monitor your okra plants regularly for any signs of pest or disease problems.
- ✚ Identify the pest or disease accurately to choose the most effective control method.

- ✚ Encourage beneficial insects like ladybugs and lacewings, which prey on harmful pests.
- ✚ Maintain good air circulation around your okra plants to discourage fungal diseases.

Harvesting and Storage:

1. **Harvesting:** Harvest pods when they are young and tender, typically 7-10 days after flowering. Use sharp scissors or shears to avoid damaging the plant.
2. **Storage:** Store harvested okra in a cool, humid place (ideally between 10-15°C) for up to 3 days. Alternatively, blanch and freeze pods for longer storage.