

# **In-Depth Guide on Groundnut Cultivation**

## **1.Introduction**

Groundnut (*Arachis hypogaea*), also known as peanut, is a significant oilseed and legume crop grown during Kharif season. It is primarily cultivated in Gujarat, Andhra Pradesh, Tamil Nadu, and Maharashtra for oil production, fodder, and as a protein-rich food source.

## **2.Climate and Soil Requirements**

- Temperature: 25–30°C; sensitive to frost and extreme heat.
- Rainfall: 50–75 cm during the growing season.
- Soil:
  - Well-drained sandy loam or light-textured soils.
  - pH: 6.0–7.5.

## **3.Seed Selection and Preparation**

- Varieties: TG-37A, JL-24, GG-2.
- Seed Rate: 80–100 kg/ha.
- Seed Treatment: Treat seeds with Rhizobium culture and fungicides like Captan (2 g/kg).

## **4.Sowing Techniques**

- Time of Sowing: June–July after the first monsoon rain.
- Methods: Line sowing using seed drills.
- Spacing: 30–45 cm between rows and 10–15 cm between plants.

## **5.Fertilizer Management**

- Base Fertilizers:
  - Nitrogen (20 kg/ha), Phosphorus (40–60 kg/ha), Potassium (30–40 kg/ha).
- Application: Apply full doses at sowing and supplement Nitrogen at the flowering stage if required.

## **6.Irrigation Management**

- Critical Stages: Flowering, pegging, and pod formation.
- Avoid waterlogging as groundnuts are highly sensitive to excess moisture.

## **7. Pest and Disease Management**

- Pests:
  - Thrips: Spray Imidacloprid (0.03%).
  - Pod Borer: Use Spinosad (0.02%).
- Diseases:
  - Tikka Leaf Spot: Apply Mancozeb (0.25%).
  - Collar Rot: Treat soil with Trichoderma viride.

## **8. Weed Control**

- Use pre-emergence herbicides like Pendimethalin (1 liter/ha).
- Manual weeding 20–30 days after sowing.

## **9. Harvesting and Post-Harvest Management**

- Harvesting: When leaves turn yellow and pods mature with hardened shells.
- Post-Harvest: Dry pods under the sun for 3–5 days to reduce moisture to 8–10%.
- Storage: Store in ventilated and moisture-free storage.

## **10. Yield and Economics**

- Yield: 2–3 tons of pods per hectare.
- Cost of Cultivation: ₹25,000–₹35,000 per hectare.
- Market Price: ₹4,000–₹5,000 per quintal.