

## Groundnut Cultivation Guide

**Introduction** Groundnut (*Arachis hypogaea*), also known as peanut, is an important oilseed crop grown in tropical and subtropical regions. It is valued for its high oil content, protein-rich seeds, and multiple uses in food processing, livestock feed, and industrial applications. Groundnut cultivation requires warm temperatures, well-drained soil, and proper management for optimal yields.

### Steps to Harvest/Cultivate

1. **Selection of Variety:** Choose high-yielding and disease-resistant varieties such as TG-37A, K-6, ICGV-91114, and GG-20 based on local climatic conditions and soil type.
2. **Soil Preparation:**
  - Groundnut thrives best in well-drained sandy loam or light-textured soil with a pH of 6.0 to 7.5.
  - Deep plowing followed by harrowing ensures a loose soil structure, which is essential for pod development.
  - Organic manure or compost should be incorporated to enhance soil fertility.
3. **Planting:**
  - Groundnut is best sown at the onset of the monsoon or during spring in irrigated conditions.
  - Seeds should be planted at a depth of 3-5 cm with a spacing of 30-45 cm between rows and 10-15 cm between plants.
  - Use a seed rate of 80-120 kg per hectare, depending on the variety and soil conditions.
4. **Watering:**
  - Provide irrigation at critical stages such as flowering, pegging, and pod development.
  - Avoid excessive irrigation as waterlogging can lead to fungal diseases and poor root growth.
5. **Fertilization:**
  - Apply nitrogen (20-25 kg/ha), phosphorus (40-60 kg/ha), and potassium (20-30 kg/ha) as per soil test recommendations.
  - Use gypsum (calcium sulfate) to improve pod formation and seed quality.
  - Application of Rhizobium inoculants helps in nitrogen fixation and better plant growth.
6. **Weed Management:**
  - Timely weeding is essential during the early growth stages to reduce competition for nutrients.
  - Mulching with organic materials helps in weed suppression and moisture retention.
7. **Pest and Disease Control:**
  - Common pests include aphids, thrips, leaf miners, and pod borers. Use neem-based sprays or biological pesticides for effective control.
  - Diseases such as leaf spot, rust, and aflatoxin contamination can be minimized through crop rotation and the use of resistant varieties.
8. **Harvesting:**

- Groundnut is ready for harvest 90-130 days after sowing, depending on the variety.
- Harvest when the leaves turn yellow and the pods are fully mature.
- Plants are uprooted, and pods are separated manually or mechanically.

#### 9. **Post-Harvest Processing:**

- After harvesting, pods should be dried in the sun to reduce moisture content.
- Shelling is done manually or using mechanical shellers.
- Proper storage in dry and aerated conditions prevents aflatoxin contamination and maintains quality.

**Conclusion** Groundnut cultivation is a profitable and versatile farming option with significant demand in domestic and international markets. By following best agronomic practices, proper pest management, and post-harvest handling techniques, farmers can achieve high yields and maximize their income. Additionally, groundnut farming contributes to soil fertility improvement due to its nitrogen-fixing ability, making it an excellent crop for sustainable agriculture.

