

Pulses Cultivation Guide

A Quick Reference

I. Introduction

Pulses are a diverse group of leguminous crops grown extensively in India, vital for protein nutrition and soil fertility through nitrogen fixation. Major pulses include chickpea (gram), pigeon pea (arhar/tur), lentil (masoor), black gram (urad), green gram (moong), and others.

II. Growth Requirements

Requirement	Optimal Range	Notes
Temperature	20°C to 30°C	Sensitive to high humidity during flowering
Rainfall	500-750 mm	Well distributed rainfall essential
Soil pH	6.0 to 7.5	Well-drained loamy soils preferred

III. Recommended NPK Fertilization (kg/ha)

Nutrient	Recommended Dosage	Notes
Nitrogen (N)	20-30 (low)	Pulses fix atmospheric nitrogen; low N use preferred
Phosphorus (P)	40-60	Important for root development and flowering
Potassium (K)	20-40	Enhances stress resistance and seed quality

Balanced fertilization and micronutrient supplementation like zinc and sulfur improve yields.

IV. Best Cultivation Practices

- Timely sowing according to region and pulse type (Kharif and Rabi seasons).
- Use high-quality, certified seeds with proper spacing (30-45 cm rows, 10-15 cm plant spacing depending on pulse).
- Maintain soil moisture especially at flowering and pod setting stages.
- Integrated pest and disease management are crucial to prevent yield losses.
- Crop rotation and residue management improve soil health.

V. Common Diseases and Pest Management

- Fusarium wilt, powdery mildew, rust, sterility mosaic, pod borers, aphids, and whiteflies.
- Use resistant varieties, seed treatments, and timely foliar sprays.
- Integrated Pest Management (IPM) practices recommended to reduce pesticide use.

VI. Types of Pulses in India

- Chickpea (Kabuli and Desi)
- Pigeon pea (Arhar/Tur)
- Lentil (Masoor)
- Black gram (Urad)
- Green gram (Moong)
- Cowpea, Moth, Horse gram, Rajmash (Kidney beans)

