

# Wheat Cultivation Guide

## I. Introduction

Wheat (*Triticum aestivum*) is a critical Rabi cereal crop predominantly cultivated in Northern India. It grows best in cool, dry climates and is mainly sown during the post-monsoon season.

## II. Growth Requirements

Requirement	Optimal Range	Notes
Temperature	15°C to 25°C	Optimal temperature for vigorous growth
Rainfall	400-800 mm	Requires adequate moisture, especially at critical growth stages
Soil pH	6.0 to 7.5	Slightly acidic to neutral soils preferred

## III. Recommended NPK Fertilization (kg/ha)

Nutrient	Recommended Dosage	Purpose
Nitrogen (N)	120-150	Promotes vegetative growth and grain filling
Phosphorus (P)	60-70	Supports root development and early vigor
Potassium (K)	40-50	Enhances disease resistance and grain quality

Nutrients are typically applied as Urea (N), Single Super Phosphate (P), and Muriate of Potash (K), with split dosing for nitrogen recommended.

## IV. Best Cultivation Practices

- **Seed Selection:** Use high-yielding, disease-resistant wheat varieties suitable for your region.
- **Land Preparation:** Plough and level fields to ensure good seedbed.
- **Sowing:** Sow seeds at an optimal depth of 4-5 cm with correct spacing.
- **Irrigation:** Provide timely irrigation at critical growth stages like tillering, jointing, heading, and grain filling.
- **Weed and Pest Management:** Use appropriate herbicides and pesticides; rotate crops to reduce disease pressure.

## V. Common Diseases and Control

Disease	Symptoms/Effects	Control Measures
Rust (Leaf and Stem)	Leaf lesions, reduced tillering	Resistant varieties, fungicides
Powdery Mildew	White powdery growth on leaves	Fungicides, crop rotation
Karnal Bunt	Black powdery spores in grains	Seed treatment, resistant varieties
Fusarium Head Blight	Blighted heads, shriveled grains	Crop rotation, resistant varieties

## VI. Types of Wheat in India

- **Bread Wheat:** Commonly used for baked goods, majorly grown in northern India.
- **Durum Wheat:** Used for pasta and semolina products.
- **Emmer and Spelt Wheat:** Grown in niche areas for specialty products.

### NPK Fertilization for Wheat

