

# Blackgram Cultivation Guide

## Introduction

Blackgram (*Vigna mungo*), also known as urad dal, is a widely cultivated pulse crop known for its high protein content and soil-enriching properties. It is grown in tropical and subtropical regions and is an essential ingredient in various Indian cuisines. Blackgram is used for human consumption, fodder, and green manure.

## Steps of Cultivation

### 1. Variety Selection

- Choose high-yielding and disease-resistant varieties.
- Popular varieties include Pant U-19, PU-31, T-9, and CO-5.

### 2. Soil Preparation

- Prefers well-drained sandy loam or clayey soil with a pH of 6.0–7.5.
- Plow the land 2–3 times to achieve a fine tilth.
- Apply organic manure or compost to enhance soil fertility.

### 3. Sowing and Spacing

- Sowing is done from June to July for the Kharif season and from October to November for the Rabi season.
- Seed rate: 15–20 kg per hectare.
- Maintain a spacing of 30–40 cm between rows and 10–15 cm between plants.

### 4. Irrigation and Water Management

- Requires minimal irrigation, with watering needed at the flowering and pod development stages.
- Avoid excessive irrigation to prevent root rot.
- Rainfed conditions are suitable for blackgram cultivation.

### 5. Fertilization and Nutrient Management

- Apply phosphorus and potassium fertilizers based on soil test recommendations.
- Organic fertilizers such as farmyard manure and compost improve soil health.
- Nitrogen-fixing bacteria (*Rhizobium*) can be used to enhance nutrient availability.

### 6. Weeding and Pest Control

- Regular weeding is necessary during early growth stages.
- **Common pests:** Pod borer, aphids, and whitefly. Use neem-based pesticides and biological control methods.
- **Common diseases:** Yellow mosaic virus, root rot, and powdery mildew. Apply fungicides and practice crop rotation.

## 7. Harvesting and Yield

- Blackgram is ready for harvest 80–100 days after sowing.
- Harvest when leaves turn yellow, and pods are fully developed.
- Average yield ranges from 8–15 quintals per hectare, depending on variety and management.

## Conclusion

Blackgram cultivation is a profitable and sustainable pulse farming practice. Proper soil preparation, irrigation, fertilization, and pest management ensure high yield and quality production. Its ability to fix nitrogen benefits soil fertility, making it a valuable crop in crop rotation systems.

