Gram Cultivation Guide

Introduction

Gram (*Cicer arietinum*), also known as chickpea, is a widely grown pulse crop valued for its high protein content. It is primarily cultivated in arid and semi-arid regions and is an essential component of vegetarian diets. Gram is used for human consumption, fodder, and soil enrichment through nitrogen fixation.

Steps of Cultivation

1. Variety Selection

- Choose high-yielding and disease-resistant varieties.
- Popular varieties include Pusa 256, Pusa 372, ICCV 10, and JG 62.

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 October to November in Rabi season.
- Seed rate: 80–100 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 gram 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 cutworms. Use neem-based pesticides and biological control methods.
- **Common diseases:** Wilt, root rot, and Ascochyta blight. Apply fungicides and ensure crop rotation.

7. Harvesting and Yield

- Gram is ready for harvest 100–120 days after sowing.
- Harvest when leaves turn yellow, and pods are fully developed.
- Average yield ranges from 10–20 quintals per hectare, depending on variety and management.

Conclusion

Gram 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.