Khesari (Lathyrus) Cultivation Guide

Introduction

Khesari (*Lathyrus sativus*), also known as grass pea, is a hardy pulse crop cultivated in drought-prone areas. It is valued for its high protein content, ability to grow in poor soils, and resilience to harsh environmental conditions. Khesari is primarily used for human consumption, livestock feed, and soil enrichment due to its nitrogen-fixing ability.

Steps of Cultivation

1. Variety Selection

- Choose high-yielding and low-neurotoxin varieties.
- Popular varieties include Ratan, Prateek, and Mahateora.

2. Soil Preparation

- Prefers well-drained loamy or clayey soil with a pH of 5.5–7.5.
- Requires minimal land preparation; one or two plowing operations are sufficient.
- Application of farmyard manure improves soil fertility.

3. Sowing and Spacing

- Sowing is done from October to November in Rabi season.
- Seed rate: 40–50 kg per hectare.
- Spacing: 25–30 cm between rows and 8–10 cm between plants.

4. Irrigation and Water Management

- Requires minimal irrigation, thrives under rainfed conditions.
- Limited water supply during pod formation improves yield.
- Avoid waterlogging as it affects root development.

5. Fertilization and Nutrient Management

- Apply phosphorus and potassium based on soil tests.
- Organic fertilizers like farmyard manure enhance soil health.
- Seed inoculation with *Rhizobium* bacteria enhances nitrogen fixation.

6. Weeding and Pest Control

- Weeding is necessary during the early growth phase to reduce competition.
- **Common pests:** Aphids, pod borers, and cutworms. Neem-based pesticides and biological controls are effective.
- **Common diseases:** Powdery mildew and rust. Fungicide applications and crop rotation help prevent diseases.

7. Harvesting and Yield

- Khesari is ready for harvest 100–120 days after sowing.
- Harvest when pods mature and turn brown.
- The average yield is 12–15 quintals per hectare under good management practices.

Conclusion

Khesari is a resilient and beneficial pulse crop that thrives in marginal lands and requires minimal inputs. Its high protein content, soil-enriching ability, and adaptability make it an ideal choice for sustainable agriculture. Proper crop management ensures higher yields and better-quality production.