

Comprehensive Guide to Ragi (Finger Millet) Cultivation

Introduction

Ragi, also known as Finger Millet (*Eleusine coracana*), is a highly nutritious and drought-resistant cereal crop.

It is widely cultivated in India, Africa, and other semi-arid regions. This guide provides a step-by-step process

for cultivating and harvesting ragi efficiently.

Step-by-Step Cultivation Process

1. Climate and Soil Requirements

- **Climate**: Grows well in warm, dry conditions with temperatures between 25°C and 30°C.
- **Rainfall**: Requires 700-1200 mm annual rainfall.
- **Soil Type**: Prefers well-drained loamy or sandy soils with a pH range of 5.5-7.5.

2. Seed Selection and Treatment

- Use high-yielding, disease-resistant varieties.
- Treat seeds with fungicides (Carbendazim or Trichoderma) to prevent fungal infections.
- Soak seeds in water for 12 hours before sowing to enhance germination.

3. Land Preparation

- Plow the field 2-3 times to ensure fine tilth.
- Apply organic manure (farmyard manure or compost) at 8-10 tons per hectare.
- Level the land to prevent water stagnation.

4. Sowing Methods

- **Broadcasting**: Seeds are scattered manually.
- **Line Sowing**: Seeds are sown in rows with a spacing of 25-30 cm.
- **Transplanting**: Nursery-raised seedlings (3-4 weeks old) are transplanted into the main field.

5. Nutrient and Fertilizer Management

- Apply **Nitrogen (40-60 kg/ha), Phosphorus (20-30 kg/ha), and Potassium (20-30 kg/ha)**.
- Use organic fertilizers like vermicompost or green manure for better soil health.

6. Irrigation Practices

- Minimal irrigation is required; ragi is largely rainfed.
- Irrigate at critical growth stages: **germination, tillering, and grain filling**.
- Avoid excessive watering to prevent root rot.

7. Weed and Pest Management

- Manual weeding at 20-25 days after sowing.
- Use herbicides like **Pendimethalin** for weed control.
- Common pests: Stem borers, aphids, and leafhoppers (use Neem oil or biopesticides for control).

8. Harvesting

- Ragi matures in **100-120 days**.
- Harvest when the grains turn brown and hard.
- Cut the ear heads and dry them under the sun for 3-4 days before threshing.

9. Post-Harvest Processing

- Threshing: Beaten manually or by a mechanical thresher.
- Drying: Sun-dry grains to reduce moisture to below 12%.
- Storage: Store in airtight containers to prevent pest infestation.

Conclusion

Ragi is a highly sustainable and nutritious crop that thrives in marginal lands with minimal water requirements.

By following proper cultivation practices, farmers can achieve high yields and contribute to food security and nutrition.

