

Small Millets Cultivation Guide

Introduction

Small millets are a group of hardy cereal crops that include finger millet (*Eleusine coracana*), foxtail millet (*Setaria italica*), little millet (*Panicum sumatrense*), barnyard millet (*Echinochloa species*), kodo millet (*Paspalum scrobiculatum*), and proso millet (*Panicum miliaceum*). These crops are rich in fiber, proteins, and essential micronutrients, making them important for food security and nutrition. They are grown in diverse agro-climatic conditions and are drought-resistant.

Steps of Cultivation

1. Variety Selection

- Choose high-yielding and region-specific varieties.
- Recommended varieties include CO 4, PR 202, GPU 28 (finger millet), CO 6 (foxtail millet), and TNAU 86 (little millet).

2. Soil Preparation

- Prefer well-drained sandy loam or red loamy soils with a pH of 5.5–7.5.
- Land should be plowed 2–3 times to create a fine tilth.
- Organic manure application improves soil fertility and structure.

3. Seed Sowing and Spacing

- Sowing methods: Broadcasting, line sowing, or transplanting (for finger millet).
- Seed rate: 8–10 kg per hectare for direct seeding; 3–5 kg per hectare for transplanting.
- Spacing: 20–25 cm between rows and 8–10 cm between plants.

4. Irrigation and Water Management

- Small millets require minimal irrigation and are mostly rainfed crops.
- If irrigated, water is applied at critical growth stages (tillering, flowering, and grain filling).
- Excess water should be avoided to prevent fungal infections.

5. Fertilization and Nutrient Management

- Apply farmyard manure (5–10 tons per hectare) before sowing.
- Balanced application of nitrogen, phosphorus, and potassium fertilizers based on soil test results.
- Biofertilizers like Azospirillum and phosphorus-solubilizing bacteria improve nutrient availability.

6. Weeding and Pest Control

- Regular weeding is necessary, especially in the early growth stages.

- **Common pests:** Shoot fly, stem borer, and aphids. Neem-based pesticides and biological control methods help manage them.
- **Common diseases:** Blast, smut, and leaf spot. Disease-resistant varieties and seed treatment with fungicides reduce risks.

7. Harvesting and Yield

- Small millets mature in 80–120 days, depending on the variety and climate.
- Harvesting is done when grains harden and turn golden brown.
- Average yield: 1.5–2.5 tons per hectare under good management.

Conclusion

Small millets are climate-resilient and highly nutritious crops that require minimal inputs. Proper soil preparation, weed management, and pest control enhance productivity. Promoting small millet cultivation supports sustainable agriculture and food security, especially in drought-prone areas.

