

Niger Seed Cultivation Guide

Introduction Niger seed (*Guizotia abyssinica*) is an oilseed crop cultivated mainly for its edible oil and bird feed. It is drought-resistant and thrives in tropical and subtropical regions. Niger seed oil is valued for its nutritional benefits, including high levels of unsaturated fatty acids. The crop is typically grown in rainfed conditions with minimal input requirements, making it a suitable option for small-scale farmers.

Steps to Harvest/Cultivate

1. Selection of Variety:

- Choose high-yielding, disease-resistant varieties suited for local climatic conditions.
- Common varieties include Ootacamund-1, Gujarat Niger-1, and Bhima Niger.

2. Soil Preparation:

- Niger seed grows well in well-drained loamy or sandy-loam soil with a pH of 5.5 to 7.5.
- The soil should be plowed and harrowed to create a fine tilth.
- Apply organic manure or compost to improve soil fertility.

3. Planting:

- Niger seed is typically sown in the Kharif season (June–July) and sometimes in the Rabi season (September–October) in certain regions.
- Seeds should be sown at a depth of 1-2 cm with a row spacing of 20-25 cm.
- The recommended seed rate is 5-6 kg per hectare.

4. Watering:

- Niger seed is drought-tolerant and can be grown under rainfed conditions.
- Provide light irrigation at critical stages like flowering and seed formation if rainfall is insufficient.
- Avoid excessive irrigation to prevent waterlogging.

5. Fertilization:

- Apply nitrogen (20-30 kg/ha), phosphorus (15-25 kg/ha), and potassium (10-20 kg/ha) based on soil test recommendations.
- Use organic fertilizers like farmyard manure or vermicompost to enhance soil health.

6. Weed Management:

- Regular weeding is required during early growth stages to prevent competition.
- Manual weeding or pre-emergence herbicides like Pendimethalin can be used for effective weed control.
- Mulching helps suppress weed growth and retain soil moisture.

7. Pest and Disease Control:

- Common pests include aphids and leaf-eating caterpillars. Neem oil or biological pesticides can help control infestations.
- Fungal diseases like powdery mildew and rust can be managed by maintaining proper field hygiene and using disease-resistant varieties.

8. Harvesting:

- Niger seed is ready for harvest 90-100 days after sowing when the flower heads turn brown and dry.
- The plants are cut and left to dry before threshing to separate the seeds.

9. **Post-Harvest Processing:**

- After harvesting, seeds should be properly dried to reduce moisture content.
- Cleaning, grading, and proper storage in dry conditions help maintain seed quality.
- Niger seed is processed for oil extraction or used as bird feed.

Conclusion Niger seed cultivation is a low-input, profitable agricultural practice that provides a valuable source of edible oil and livestock feed. By adopting proper agronomic practices, irrigation management, and pest control measures, farmers can achieve good yields. With increasing demand for healthy oils and organic products, niger seed farming presents excellent opportunities for sustainable agriculture.

