

Jute and Mesta Cultivation Guide

Introduction

Jute (*Corchorus spp.*) and Mesta (*Hibiscus sabdariffa* and *Hibiscus cannabinus*) are natural fiber crops known for their strong and eco-friendly fibers. Jute is widely grown in tropical regions with high humidity, while Mesta serves as an alternative fiber crop, thriving in similar conditions. Both fibers are used in making ropes, bags, mats, and textiles, making them significant contributors to the sustainable fiber industry.

Steps of Cultivation

1. Variety Selection

- **Jute:** Common varieties include JRO-524, JRO-8432, JRO-66 (White Jute), and JRO-128, JRO-878 (Tossa Jute).
- **Mesta:** Common varieties include AMV-4, JRM-5, HS-4288, and Bidhan Rupali.

2. Soil Preparation

- Prefers well-drained, sandy loam or clayey soil with a pH of 5.0–7.5.
- Land should be plowed 2–3 times to achieve a fine tilth.
- Organic manure or compost should be added to improve soil fertility.

3. Sowing and Spacing

- **Jute:** Sowing is done from March to May, depending on rainfall.
- **Mesta:** Sowing is done from April to June.
- Seeds should be sown in rows with a spacing of 20–30 cm for jute and 25–30 cm for mesta.
- Seed rate: 5–7 kg per hectare for jute, 6–8 kg per hectare for mesta.

4. Irrigation and Water Management

- Requires moderate irrigation, especially during dry conditions.
- Avoid waterlogging, as it can damage young seedlings.
- Proper drainage channels should be maintained in the field.

5. Fertilization and Nutrient Management

- Apply nitrogen, phosphorus, and potassium fertilizers for healthy growth.
- Organic manure, such as compost or farmyard manure, improves fiber quality.
- Micronutrients like zinc and boron enhance plant vigor.

6. Weeding and Pest Control

- Regular weeding is necessary in the first 4–5 weeks after sowing.
- **Common pests:** Jute stem weevil, leafhoppers, aphids, and caterpillars. Use biological control methods and neem-based pesticides.

- **Common diseases:** Stem rot, fungal blight, root rot, and leaf spot. Apply fungicides and ensure proper crop rotation.

7. Harvesting and Retting

- **Jute:** Harvesting is done 100–120 days after sowing when plants start flowering.
- **Mesta:** Harvesting is done 120–150 days after sowing.
- Plants are cut close to the ground, bundled, and retted in water for 2–3 weeks to separate fibers.
- After retting, fibers are extracted, washed, dried, and sorted for processing.

Conclusion

Jute and Mesta cultivation are eco-friendly and economically important farming practices. Proper soil preparation, irrigation, pest management, and retting techniques ensure high-quality fiber production. Sustainable farming methods help improve yield and market value, supporting the growing demand for biodegradable and natural fibers.