

Sugarcane Cultivation Guide

Introduction

Sugarcane is a tropical and subtropical crop grown mainly for sugar production. It is a perennial grass that requires warm temperatures, high humidity, and abundant water supply. Sugarcane is also used in ethanol production, jaggery, and fodder for livestock. It grows best in deep, well-drained loamy soil with a pH between 5.5 and 8.0.

Step-by-Step Cultivation Process

1. Land Preparation

Plow the field deeply and level it to ensure proper drainage. Add organic manure to enrich the soil.

2. Seed Selection

Use healthy sugarcane setts (cuttings) from disease-free and high-yielding varieties.

3. Planting

Plant the setts horizontally in furrows at a depth of 5-7 cm. Maintain row spacing of 75-90 cm for good growth.

4. Irrigation

Sugarcane requires frequent irrigation, especially during germination, tillering, and grand growth stages.

5. Fertilization

Apply nitrogen, phosphorus, and potassium fertilizers as per soil test recommendations. Use organic compost for better yield.

6. Weed Control

Weeds should be managed through manual weeding or herbicide application to prevent nutrient competition.

7. Pest and Disease Management

Common pests include top shoot borers and white grubs. Control diseases like red rot using resistant varieties and fungicides.

8. Ratooning

After the first harvest, the remaining stubble can regrow (ratooning), reducing planting costs for the next crop cycle.

9. Harvesting

Sugarcane is ready for harvest in 10-14 months. Harvest when the sugar content is highest (Brix

value >18%).

10. Post-Harvest Processing

Transport harvested cane quickly to mills for processing into sugar, jaggery, or ethanol.

Conclusion

Sugarcane is a highly valuable cash crop with multiple uses. Proper cultivation, irrigation, and pest management can help farmers achieve high yields and profitability. It is a crucial crop for the sugar and biofuel industries worldwide.

