Package of Practices (POP) – Sugarcane Variety CoJ 88

Introduction

CoJ 88 is a late-maturing, drought-tolerant variety from Jaunpur suited for Eastern UP's semi-arid pockets and the Bundelkhand region. With moderate inputs, it produces 68–88 t/ha at 9.7% sugar recovery. Its ability to withstand moisture stress, tolerate calcareous soils, and complete maturity even with limited irrigation makes it a reliable option for marginal and rainfed sugarcane areas.

Land Preparation

Soil and Climate: Suited to Sandy loam, Medium loam. Grows well in the sub-tropical climate of UP (21–27°C) with 75–150 cm annual rainfall. Assured irrigation essential during dry periods.

Tillage: Carry out 3–4 deep ploughings to 28–30 cm. Apply 10–15 t/ha well-decomposed FYM in the last ploughing and incorporate thoroughly. Level field; prepare furrows 90 cm apart and 25–30 cm deep.

Planting

Timing: Spring (March–April)

Seed material: 35,000 three-budded setts/ha; row spacing 90 cm; depth 20–25 cm

Seed Treatment

- Hot Water Treatment (HWT): Immerse setts at 52°C for 30 minutes to eliminate Ratoon Stunting Disease and systemic pathogens.
- Chemical treatment: Soak in 0.1% Carbendazim (Bavistin) + 0.05% Malathion for 10–15 minutes before planting.
- Bio-treatment: Treat with Trichoderma viride @ 4 g/litre or Gluconacetobacter diazotrophicus @ 2 kg/ha in 250 litres water.

Planting Methods

Trench method: Recommended for high-yield target. Trenches 90–120 cm apart and 25–30 cm deep. Offers better yield especially in loamy soils.

Flat planting method: Suitable for drier or low-rainfall areas. Furrows 8–10 cm deep, 75–90 cm apart; setts placed end-to-end.

Pest protection at planting: Apply Chlorpyrifos 20 EC @ 5 L/ha or Fipronil 0.3% GR @ 20 kg/ha in furrow to control termites and early shoot borers.

Nutrient Management

Fertilizers: Based on soil testing. Recommended dose: 200 kg N, 75 kg P_2O_5, and 85 kg K_2O per hectare.

Basal dose: Apply full P_2O_5 + K_2O + one-third of N at planting, incorporated with FYM.

Top dressing: Apply remaining N in two equal splits: first at 30–45 DAP, second at 90 DAP during earthing up.

Bio-fertilizers: Azotobacter @ 2 kg/ha + PSB @ 2 kg/ha applied in 3 splits at 30, 60, and 90 DAP.

Irrigation

Irrigation schedule: 5–7 irrigations; low-irrigation requirement

- Germination phase (0–35 days): Irrigate every 7 days.
- Tillering phase (36–100 days): Irrigate every 10 days.
- Grand growth phase (101–270 days): Irrigate every 7 days.
- Maturity phase: Withhold irrigation 30–45 days before harvest to improve sugar recovery.

Water-saving: Use alternate furrow irrigation, drip irrigation, or trash mulching in water-scarce areas.

Weed Control

Pre-emergence: Spray Atrazine 50% WP @ 2.5 kg/ha within 3–4 days after planting using 400–500 litres water/ha.

Post-emergence: Apply 2,4-D @ 2.5 kg/ha for broad-leaf weeds after emergence. Use hand weeding for grassy weeds.

Mulching: Spread dry sugarcane leaves (8–10 cm thick layer) between rows to conserve moisture and suppress weeds.

Pest and Disease Management

Pest and disease control:

- Termites (major): Chlorpyrifos 20 EC @ 4 L/ha drench in furrow.
- Shoot borer: Trichogramma release if infestation above threshold.
- Mealybug: Dimethoate drench on drought-stressed plants.
- Red Rot: Moderate resistance; HWT as protection; rogue infected clumps.

- Dry root rot: Avoid waterlogging; maintain soil aeration.

Yield

Yield potential: 68–88 t/ha plant crop; 52–68 t/ha ratoon

Sugar recovery: 9.7%

Best suited for: Eastern UP and Bundelkhand (Jaunpur, Varanasi, Jhansi, Lalitpur, Banda)

Ratoon Management

Stubble shaving: Shave the stubbles with sharp spades to 8–10 cm below soil surface immediately after harvest.

Gap filling: Fill any gaps within 30 days of stubble shaving using sprouted setts from the same field.

Fertilizer and irrigation: Trash mulch essential; minimal but timely irrigation; harvest at 12–13 months for maximum late-season recovery; 25 kg extra N/ha at 30 DAS.

Tillage: Plough along ridges to break compacted soil and improve root zone aeration.

Irrigation: Irrigate the field within 24 hours of harvesting the main crop to support ratoon sprouting.

Fair and Remunerative Price (FRP) of Sugarcane

The FRP is the minimum price that sugar mills are legally required to pay sugarcane farmers, fixed by the central government on CACP recommendations.

Season	FRP (₹/quintal)	Base Recovery
2025–26	₹355	10.25%
2024–25	₹340	10.25%
UP SAP 2024–25	₹370 (early varieties)	—

A premium of ₹3.46 per quintal is paid for every 0.1% increase in recovery above 10.25%. For mills with recovery below 9.5%, the minimum price is ₹329.05 per quintal.