# Package of Practices (POP) – Sugarcane Variety CoLk 15201

## Introduction

CoLk 15201, the latest release from IISR Lucknow, is recommended for all UP zones and represents the highest-yielding, highest-recovery variety currently available for UP farmers. Delivering 92–120 t/ha at an exceptional 11.3% sugar recovery with excellent ratoon regeneration ability, it combines the best of yield, quality, and disease resistance (highly resistant to Red Rot, Smut, and Wilt). It is the premium choice for progressive and drip-irrigated farms across all UP agro-climatic zones.

## Land Preparation

**Soil and Climate:** Suited to Loam, Sandy loam, Clay loam (wide adaptability). 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 (February–March)

**Seed material:** 37,500 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: 300 kg N, 100 kg $P_2O_5$, and 130 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:** 10–12 irrigations; medium irrigation requirement; drip-fertigation strongly recommended

- 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:**

- Shoot borer: Trichogramma japonicum @ 2.5 lakh/ha; Chlorpyrifos in furrow at planting.
- Top borer: Monocrotophos 36 SL @ 1.5 ml/litre in June–July.
- Pyrilla: Epiricania melanoleuca egg card release.
- Red Rot: Highly resistant; HWT + Bavistin as standard protocol.
- Smut: Highly resistant; HWT mandatory; rogue any whip shoots.
- Wilt: Highly resistant; certified clean seed; ensure proper drainage.

## Yield

**Yield potential:** 92–120 t/ha plant crop; 78–100 t/ha ratoon (best ratoon ability among all UP varieties)

**Sugar recovery:** 11.3% (highest CCS recovery in UP variety portfolio)

**Best suited for:** All UP Zones — Western, Central, Eastern UP and Terai

## 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:** Premium ratoon management: 40 kg extra N/ha; drip-fertigation preferred; propping + earthing up at 75 DAS; gap fill at 15 DAS; harvest at 10–11 months for maximum sugar recovery.

**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.