



Information Sheet

3. VARIETIES

Variety N45

Previously 93W0690. Parents N29 x N31. Selected in the coastal region on data collected from both the Empangeni (high potential) and Gingindlovu (average potential) programs. It is recommended that N45 be grown on a short harvesting cycle (12-14 months) along the coast.

BEST FEATURES

N45 produces good RV yields on both high and average potential soils along the coast. It has an average to good disease resistance together with desirable agronomic characteristics.

LIMITING FEATURES

Does not perform consistently at 15-18 months along the coast or hinterland. The intermediate susceptible eldana rating suggests that stress and carryover along the coast should be avoided. N45 has been observed to produce thin stalks.

YIELD AND QUALITY

Tons RV	Moderate to high 111% of NCo376, 95% of N27 & 108% of N29
Cane yield	Moderate to high. 106% of NCo376, 93% of N27, & 118% of N29
RV content	Moderate. 106% of NCo376, 97% of N27 & 91% of N29
Fibre content	Moderate. 104% of NCo376, 101% of N27 & 107% of N29
Purity	Moderate. 100% of NCo376, 97% of N27 & 96% of N29

Good RV yields were obtained with N45 on both high potential (8% higher than NCo376) and average potential (15% higher than NCo376) soils along the coast. N45 produces variable RV yields on 15-18 month cutting cycles along the coast and hinterland.

REACTION TO DISEASES AND PESTS

Smut	Intermediate susceptible
Mosaic	Resistant
Brown Rust	Resistant
Tawny Rust	Unknown
Leaf scald	Resistant
Eldana	Intermediate susceptible

N45 has good resistance to mosaic and rust compared to other commercial varieties. However, it has an intermediate susceptible eldana and smut rating. Slight gumming has also been observed on this variety on a number of inspections.

AGRONOMIC CHARACTERISTICS

Germination	Good
Stalk Population	Intermediate
Stalk Height	Intermediate
Canopy	Good
Flowering	Sparse
Lodging	Intermediate
Ratooning	Good

N45 germinates well, producing an average population of relatively thin stalks. Canopy formation is good. Stalks are relatively straight and of intermediate height. N45 has lodged occasionally.

MILLING CHARACTERISTICS

Colour	Low
Pith:Fibre ratio (Low ratio is desirable)	Low

Results from northern irrigated region. Colour worse than N19. Pith:fibre similar to N19.

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IDENTIFICATION GUIDE

HABIT AND GENERAL APPEARANCE

Average stalk population with very thin stalks; good canopy; relatively straight intermediate height stalks; may lodge occasionally.

LEAF

Blade: Narrow to medium width at longitudinal mid-point; erect leaves; small chlorotic blotches on midrib; large and distinct ligule.

Sheath: Medium adherence to stalk; very few to absent hairs on sheath; yellowish-green sheath.

Collar: Dark green – purple collar.

Auricle: Small broad auricles on both sides; tufts of hair present on both sides.

STALK

Internode

Concave-convex; moderate zig-zag alignment of stalk; very little or absent wax on internode; yellowish stalks when not exposed to the sun; dark green on exposure to sun, sometimes brownish/brick red.

Wax band: Distinct; medium-broad.

Bud furrow: Slight; more distinct on older internodes.

Node

Growth ring: Distinct & protruding; medium width.

Root band: Narrow-intermediate; 2 rows of primordia.

Sheath scar: Distinct; neat sheath scar; not perpendicular to stalk.

Bud: Round; smallish; extends above the growth ring

Flange: Distinct; extends half way around the bud.



Updated by Marvellous Zhou (Senior Plant Breeder) November 2010

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