



Information Sheet

3. VARIETIES

Variety N50

Parents: 83H0154 x 85H0363. Year of release: 2008.

Permitted Pest, Disease and Variety Control Areas: Entumeni, North Coast, Midlands North, Midlands South, Sezela, Umzimkulu.

Recommended for planting in the midlands and hinterland regions and harvesting older than 18 months.

BEST FEATURES

N50 produces very high cane yields. It has good resistance to mosaic. It has shown good ratooning ability in a number of trials.

LIMITING FEATURES

N50 is susceptible to smut. It is not suitable for frost pockets in the midlands. N50 is sensitive to hot water treatment. Severe sour rot has been observed on N50 during dry periods.

YIELD AND QUALITY*

	Age at harvest (Months)**		
	12-15	15-18	18-24
Tons RV	Not recommended	Moderate to high 126% of N12 103% of N31 96% of N48	High 114% of N12 102% of N31 99% of N48
Cane yield		High 132% of N12 105% of N31 107% of N48	High 116% of N12 102% of N31 101% of N48
RV %	Not recommended	Low 97% of N12 98% of N31 90% of N48	Low 97% of N12 99% of N31 97% of N48
Fibre content		Moderate 97% of N12 96% of N31 96% of N48	Moderate 99% of N12 94% of N31 102% of N48

Good RV yields have been obtained with N50 on both sandy and humic soils in the midlands. It has outperformed most other midlands varieties when harvested younger (18 months) under midlands conditions. However, trial results show that N50 is not suited to frost pockets. RV yields of N50 under coastal and hinterland conditions have been mediocre.

SOIL SUITABILITY

Soil Group*	Performance
Grey crest to midslope	Good
Grey lower slopes	Good
Humics	Good
Red	Unknown
Black structured	Unknown

*For soil forms that fall within these groups consult SASRI's Soils Bulletin or your local Extension Specialist

AGRONOMIC CHARACTERISTICS

Germination	Rapid and reliable
Stalk Population	Very high (140 000 stalks/ha)
Stalk Height	Moderate to tall
Canopy speed	Rapid
Flowering	Rare
Lodging	Moderate (severe at high tonnages)
Ratoon regrowth	Rapid
Reaction to water stress	Intermediate
Reaction to waterlogging	Unknown

N50 produces a very high population of thick stalks. This variety is sensitive to HWT.

*Based on average performance relative to control varieties under the same conditions. Performance may vary under different conditions and management.

**Harvest age is related to region, where 12-15 months represents coastal, 15-18 represents hinterland, and 18-24 represents midlands conditions, in general.

REACTION TO DISEASES AND PESTS*	
Smut	Susceptible (<i>poorer than N48, similar to N31</i>)
Mosaic	Resistant (<i>Better than N12 and N31</i>)
Brown Rust	Intermediate (<i>Better than N16 and N37, similar to N31</i>)
Tawny Rust	Intermediate
Eldana	Intermediate (<i>Poorer than N12, similar to N48</i>)
Severe sour rot has been observed in N50 during dry periods in the Midlands. Intermediate levels of thrips damage have been observed.	

* Reactions vary depending on pest and disease pressure and were accurate at the time of publishing.

REACTION TO CHEMICAL RIPENING	
Fusilade Forte (250 – 275 ml/ha)*	No data
Ethephon (1.5 L/ha)	No data
Tandem (Ethephon + Fusilade Forte)	No data
*The higher rates should be used when the chemical is applied by aircraft.	

MILLING CHARACTERISTICS	
Colour (lower is better)	Average to high (<i>102% of N12, 85% of N31</i>)
Pith: Fibre ratio (Lower ratio is desirable)	Low to average (<i>89% of N12, 93% of N31</i>)

IDENTIFICATION GUIDE

HABIT AND GENERAL APPEARANCE

Intermediate to high stalk population; good canopy; average thickness of stalks.

LEAF

Blade: Narrow to medium width at longitudinal mid-point; arched; small chlorotic blotches present on mid-rib; hairs present.

Sheath: Weak adherence to the stalk; green sheath, becoming darker on exposure; occasional pink flushes; sometimes red sheath with red blotches present; overlaying wax-coating of sheath; occasionally fine hairs present.

Collar: Medium to wide; purplish-green.

Auricle: Large, lanceolate auricle (fairly long and thin) on underlapping leaf; outer auricle is small and indistinct.

STALK

Internode

Tumescent (barrel-shaped); absent to very weak zig-zag stalk alignment; creamy green internodes; cracks sometimes present; extremely waxy (wax-overlay) on stalk.

Wax band: Fairly indistinct, not clearly defined.

Bud furrow: Present.

Node

Growth ring: Protrudes slightly but is indistinct in older internodes.

Root band: Indistinct; more than 2 rows of root primordia.

Sheath scar: Present.

Bud: Small ovate buds (slightly pointed at tip of bud); younger buds are pinkish-red (looks similar to N12).

Flange: Hairs present on flange; medium; wraps almost all round the bud.



Updated by Sanesh Ramburan (Senior Agronomist: Varieties) November 2016