



Information Sheet

3. VARIETIES

Variety N16

Parents: NCo376 x Co331. Year of release: 1982.

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

Recommended for planting on humic soils in the Midlands and Hinterland, and harvested on a long cutting cycle (>15 months).

BEST FEATURES

N16 is a very good variety on humic soils in the Midlands. It can be harvested at 12 or 24 months at altitude, as stalk elongation is rapid. It can be used in frost pockets; however, it is outperformed by other varieties such as N36, N37, N39, and N41 in these scenarios. N16 generally gives good payloads due to the high population of erect stalks.

LIMITING FEATURES

N16 does not perform very well under stressed conditions. RV yields on shallow and sandy soils have not been acceptable. It is susceptible to eldana, which limits its production along the coast or in areas where eldana is a problem. Smut can be severe in this variety. Severe infestations of tawny and brown rust have been observed on N16.

YIELD AND QUALITY*

	Age at harvest (months)**		
	12-15	15-18	18-24
Tons RV	Moderate to high 107% of N12 120% of N37 115% of N48	Moderate 102% of N12 87% of N37 79% of N48	Moderate 103% of N12 99% of N37 90% of N48
Cane yield	High 109% of N12 112% of N37 102% of N48	High 107% of N12 95% of N37 82% of N48	High 108% of N12 108% of N37 97% of N48
RV %	Moderate 100% of N12 112% of N37 108% of N48	Moderate 96% of N12 90% of N37 97% of N48	Moderate 96% of N12 92% of N37 92% of N48
Fibre content	Moderate 93% of N12 116% of N37 108% of N48	Moderate 97% of N12 96% of N37 106% of N48	Moderate 96% of N12 93% of N37 97% of N48

Better RV yields are obtained with N16 on good soils. Poor RV yields are obtained on sandy or waterlogged soils.

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

MILLING CHARACTERISTICS

Colour (lower values better)	90% of N12 and 79% of N31
Processability (higher percolation is better)	83% N31 and 94% N12

SOIL SUITABILITY

Soil Group*	Performance
Grey crest to midslope	Poor
Grey lower slopes	Poor
Humics	Very good (recommended)
Red	Good (recommended)
Black structured	Moderate

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

AGRONOMIC CHARACTERISTICS

Germination	Rapid
Stalk Population	Very high (>140 000 stalks/ha)
Stalk Height	Moderate (160 -170 cm)
Canopy speed	Rapid
Flowering	Moderate
Lodging	Moderate
Ratoon regrowth	Rapid and reliable
Reaction to water stress	Moderate
Reaction to waterlogging	Poor

N16 has good ratooning ability (ability to sustain RV yields over many crops). High populations of straight stalks often give good payloads. Stalk elongation rates are rapid.

REACTION TO DISEASES AND PESTS*	
Smut	Susceptible (Poorer than N12 and N48)
Mosaic	Intermediate (Similar to N12, poorer than N48)
Brown rust	Intermediate (Poorer than N12 and N48, better than N37)
Tawny rust	Susceptible
Eldana	Susceptible (Poorer than N12 and N48)
Nematodes	Susceptible (Poorer than N12 and N31)
Severe and persistent infections of tawny rust have been observed on N16. Thrips numbers have generally been intermediate to low on N16.	

* 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)*	Yes
Ethephon (1.5 L/ha)	Yes
Tandem (Ethephon + Fusilade Forte)	Yes

*The higher rates should be used when the chemical is applied by aircraft.

IDENTIFICATION GUIDE

Habit and General Appearance

An erect cane, similar in many respects to NCo376.

Leaf

Blade: Narrow to medium in width; erect but drooping towards the tips. A small chlorotic blotch may be present, but is always less pronounced than in NCo376.

Sheath: Slightly hairy on the abaxial surface. Green in colour, with some purpling near the sheath scar.

Collar: Narrow to medium in width. Green in colour.

Auricle: Usually present; small and rounded.

Stalk

Internode

Medium in thickness and texture, cylindrical or slightly bobbin-shaped. Yellow or yellow-green with pink tinge, developing a deep pink colour on exposure.

Wax band: Narrow and constricted.

Bud furrow: May be present, or there is an indentation above the bud.

Node

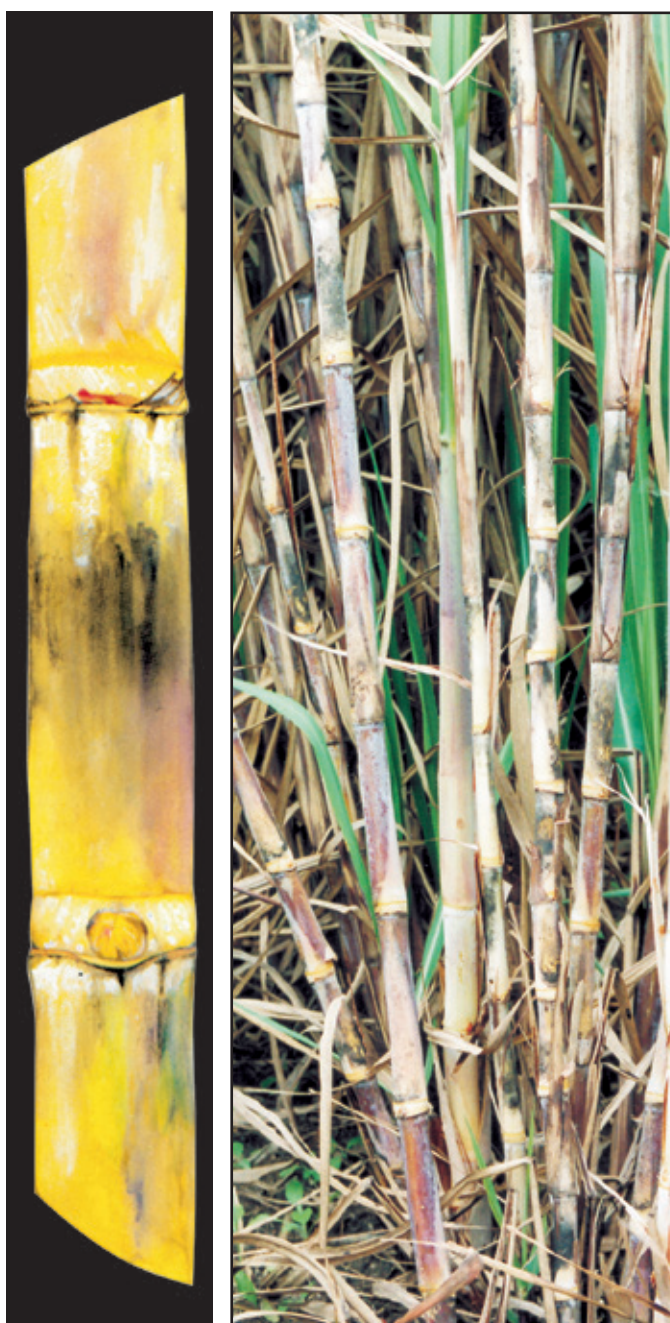
Growth ring: Yellow or greenish-yellow in colour. May be raised slightly above the root band to form a ridge.

Root band: Narrow; usually slightly swollen. Yellow in colour.

Sheath scar: Ciliate; protrudes near the bud, but does not sag.

Bud: Circular, arising at the sheath scar, often with a small peg-like projection at the base. Young, immature buds are distinctly pink or red in colour.

Flange: Narrow and inconspicuous. There may be a fringe of hairs at the apex.



Updated by Sanesh Ramburan (Senior Agronomist: Varieties) December 2014

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