



Information Sheet

3. VARIETIES

Variety N12

Parents: NCo376 x Co331. Year of release: 1979.

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

Recommended for planting in the rainfed regions of the industry on a range of soils and harvested older than 18 months.

BEST FEATURES

N12 is a very reliable variety that has produced consistently under a range of conditions in the industry. It is a hardy variety and very good RV yields were achieved during periods of drought. The ratooning ability of N12 is good, making it economically viable over many seasons. It has fairly good eldana tolerance, thereby allowing it to be carried over. It has good resistance to brown rust.

LIMITING FEATURES

N12 germinates and establishes a canopy fairly slowly, so weed control measures are essential during this period. It is not suited to 12 month harvesting, and is outperformed by other newer varieties when harvested younger than 15 months. In the Midlands, moderate to low RV yields have been obtained on humic soils relative to other varieties like N16 and N37. It has been outperformed by other varieties in frost pockets in the Midlands (12 month harvest). Mosaic is becoming increasingly common in this variety.

YIELD AND QUALITY*

	Age at harvest (months)**		
	12-15	15-18	18-24
Tons RV	Not recommended	Moderate to low 87% of N16 87% of N31 78% of N48	Moderate to low 93% of N16 91% of N31 81% of N48
Cane yield	Not recommended	Moderate to low 88% of N16 84% of N31 82% of N48	Moderate to low 89% of N16 85% of N31 83% of N48
RV %	Not recommended	Moderate 98% of N16 102% of N31 93% of N48	Moderate to high 104% of N16 106% of N31 97% of N48
Fibre content	Not recommended	High 109% of N16 99% of N31 104% of N48	Moderate to high 104% of N16 97% of N31 103% of N48

RV yields of N12 are highly dependent on harvest age. Consistently high RV yields have been produced on poor soils in the Midlands on a long cutting cycle

*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)	111% of N16 and 88% of N31
Processability (higher percolation is better)	88% N31 and 106% N16

SOIL SUITABILITY

Soil Group*	Performance
Grey crest to midslope	Good
Grey lower slopes	Good
Humics	Moderate to poor (compared to N16 and N37)
Red	Moderate (compared to N16 and N37)
Black structured	Moderate to good

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

AGRONOMIC CHARACTERISTICS

Germination	Very slow (especially after hot water treatment)
Stalk Population	Very high (> 145 000 stalks/ha)
Stalk Height	Moderate (160 -170 cm)
Canopy speed	Very slow (especially in plant cane)
Flowering	Moderate
Lodging	Rare
Ratoon regrowth	Slow but reliable
Reaction to water stress	Good
Reaction to waterlogging	Moderate to good
N12 has good ratooning ability (ability to sustain RV yields over many crops). Stalk elongation is slow for the first 12 months and then improves rapidly thereafter.	

REACTION TO DISEASES AND PESTS*	
Smut	Intermediate (Better than N16 and N31)
Mosaic	Intermediate (Similar to N16 and N31)
Brown rust	Resistant (Better than N16, N31, and N37)
Tawny rust	Intermediate resistant
Eldana	Intermediate (Better than N16, N31, and N37)
Nematodes	Intermediate (Better than N16 and N37)

N12 has better brown rust resistance than other midlands varieties. Mild to moderate infestations of tawny rust have occasionally been observed in the Midlands. Mosaic is increasingly common in this variety, particularly in the Midlands. Thrips numbers have generally been intermediate to low on N12.

* 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

Early growth is prostrate, becoming erect later. Good resistance to lodging and canopy is erect. Leaves are quick to respond to conditions of moisture stress, by an inward rolling of the leaf blade.

Leaf

Blade: Narrow, erect leaves with a slight chlorotic blotch. The canopy is usually paler in colour than that of NCo376.

Sheath: Hairs on the back of the leaf sheath usually absent; sometimes a few present. Has a distinct purplish tinge visible through the overlying wax coating.

Collar: Medium width, with distinct green colour. A prominent fringe of hairs is associated with the collar region.

Auricle: Usually present, well developed and lance-shaped.

Stalk

Internode

Medium thickness and relatively hard. Yellow-green in colour. On exposure green flushes develop. Cylindrical in shape and staggered. Generally no cracks, although corky markings (patches) may be present.

Wax band: narrow, constricted and usually distinct.

Bud furrow: absent.

Node

Growth ring: green in young nodes, becoming yellow in older nodes.

Root band: medium width, creamy white in colour. Root primordia generally present in two to three rows.

Sheath scar: a ragged scar which may protrude and sag slightly below the bud.

Bud: usually oval, occasionally circular, arising above the sheath scar. The young, immature buds are a characteristic pink or red-pink colour.

Flange: narrow to medium width, arising at or below the centre of the bud.



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