



Information Sheet

13. VARIETIES

13.36 Variety N51

Parents: 77L1143 x MO (group of male parents – identity of male parent unknown).

Year of release: 2009.

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

Recommended for planting in the coastal and hinterland regions and harvesting older than 15 months.

BEST FEATURES	
N51 has good disease resistance in general, and this makes it suited to most rainfed regions. RV yields when harvested at 18 months along the coast and hinterland have been very good. It may also be grown on average potential soils and harvested at 12 months of age.	

LIMITING FEATURES	
Germination of N51 may be slow, especially after HWT. Severe lodging has been reported in high yielding crops.	

YIELD AND QUALITY*

	Age at harvest (Months)**		
	12-15	15-18	18-24
Tons RV	Moderate 115% of N12 88% of N39 96% of N41	Moderate to high 137% of N12 112% of N39 89% of N48	Moderate to low 104% of N12 87% of N31 83% of N48
Cane yield	Moderate to High 114% of N12 97% of N39 103% of N41	High 139% of N12 125% of N39 101% of N48	Moderate 113% of N12 90% of N31 91% of N48
RV %	Low 99% of N12 86% of N39 92% of N41	Moderate to Low 100% of N12 90% of N39 89% of N48	Low 92% of N12 96% of N31 91% of N48
Fibre content	Moderate 99% of N12 102% of N39 103% of N41	Moderate 102% of N12 97% of N39 105% of N48	Moderate 101% of N12 98% of N31 105% of N48

SOIL SUITABILITY

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

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

AGRONOMIC CHARACTERISTICS

Germination	Intermediate to slow
Stalk Population	Moderate (118 000 stalks/ha)
Stalk Height	Moderate to tall
Canopy speed	Moderate speed but reliable
Flowering	Rare
Lodging	Moderate
Ratoon regrowth	Moderate speed but reliable
Reaction to water stress	Moderate
Reaction to waterlogging	Unknown

N51 tends to produce a moderate population of fairly thick stalks. Stalks are generally of average height. It produces a fairly large canopy of erect, spiky leaves. There have been some reports of poor germination of N51 after HWT.

Very good RV yields are achieved with N51 on a 15 – 18 month cutting cycle along the coast and hinterland. RV yields of N51 on the coastal short cutting cycle (12 months) have not been as good as other coastal varieties such as N39 and N41. Similarly, performance in the midlands has not been as good as varieties like N31 and N48.

*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	Intermediate resistant (Better than N39 and N47)
Mosaic	Intermediate resistant (Better than N12 and N31)
Brown Rust	Intermediate resistant (Better than N16, N37 and N50)
Tawny Rust	Has not been observed
Eldana	Intermediate (Poorer than N12 and N39)
N51 has shown good responses to nematicide in all trials so far. Mild symptoms of brown rust have been observed on N51.	

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

IDENTIFICATION GUIDE

HABIT AND GENERAL APPEARANCE

Average stalk diameter; large canopy.

LEAF

Blade: Erect and spiky leaves; leaves of medium width; large ligule; some ring spot present.

Sheath: Clinging crop residue; strong adherence to stalk; waxy; no hairs present; green; darker on exposure.

Collar: Dark green; medium collar.

Auricle: Inner auricle very distinct, tall, pointed and broad; outer auricle is small and indistinct.

STALK

Internode

Long internodes; conoidal (narrow at top of internode, broad at bottom of internode); yellow-green when not exposed to sun; dark green on exposure to sun; corky markings present; slight zig-zag alignment of stalk; brown blotches present; cracks sometimes present.

Wax band: Medium width; fairly distinct.

Bud furrow: Very slight bud furrow present on younger internodes.

Node

Growth ring: Protrudes slightly; indistinct; same colour as internode.

Root band: Narrow root band; wider at bud; two rows of primordia.

Sheath scar: Distinct; not perpendicular to stalk.

Bud: Ovate; medium size; same colour as stalk.

Flange: Distinct, fairly large flange; more distinct on older buds.

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

MILLING CHARACTERISTICS	
Colour (lower is better)	High (133% of NCo376, 119% of N39)
Pith: Fibre ratio (Lower ratio is better)	No data available



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