



Information Sheet

3. VARIETIES

Variety N42

Parents: 81E1253 x 80Z3167. Year of released: 2004.

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

Recommended for planting in coastal and hinterland regions on a 12 to 18 month cutting cycle, under moderate to high yield potential conditions. May also be grown in the midlands region on a 24 month cutting cycle.

BEST FEATURES

N42 has good smut, mosaic and eldana resistance. Very good RV yields are achieved in valley bottom areas on deep soils. It has good germination and canopy characteristics. N42 has shown recent good performance in hinterland conditions where flowering is minimal and under high potential humic soils in the midlands on a 24 month cycle. Early season RV yields have been better than most other coastal varieties.

LIMITING FEATURES

N42 flowers profusely and should be harvested before August in most cases. Moderate to severe brown rust has been observed on N42 in coastal and hinterland areas. N42 is sensitive to Hot Water Treatment (HWT).

YIELD AND QUALITY*

	Age at harvest		
	12-15	15-18	18-24
Tons RV	Moderate to high 106% of N27 103% of N39 99% of N41	Moderate 109% of N12 91% of N39 86% of N48	Moderate 114% of N12 97% of N31 88% of N48
Cane yield	High 110% of N27 111% of N39 106% of N41	Moderate 110% of N12 99% of N39 91% of N48	Moderate to low 114% of N12 92% of N31 91% of N48
RV %	Moderate 97% of N27 94% of N39 94% of N41	Moderate 101% of N12 94% of N39 97% of N48	Moderate to high 101% of N12 106% of N31 98% of N48
Fibre content	High 107% of N27 100% of N39 103% of N41	High 102% of N12 103% of N39 106% of N48	High 102% of N12 102% of N31 104% of N48

Best RV yields are achieved on a 12 month cutting cycle, under good yield potential conditions. In the hinterland and midlands, better RV yields have been achieved on good soils in particular.

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

SOIL SUITABILITY

Soil Group*	Performance
Grey crest to midslope	Moderate
Grey lower slopes	Good (good in valley bottoms)
Humics	Good
Red	Moderate to good
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 and reliable (except after HWT)
Stalk Population	Moderate to high (120 000 stalks/ha)
Stalk Height	Moderate (170 cm)
Canopy speed	Rapid and dense
Flowering	Very profuse
Lodging	Moderate
Ratoon regrowth	Rapid and reliable
Reaction to water stress	Moderate
Reaction to waterlogging	Good

N42 flowers under most conditions and strict harvest schedules must be followed to prevent losses due to flowering. N42 is sensitive to HWT.

MILLING CHARACTERISTICS

Colour (lower values better)	Average (68% of N12, 128% of N29)
Processability (higher percolation is better)	10% lower percolation than NCo376

REACTION TO DISEASES AND PESTS*	
Smut	Resistant (Better than N36 and N41)
Mosaic	Resistant (Better than N36 and N41)
Brown rust	Intermediate-susceptible (Poorer than N36, N39 and N41)
Tawny rust	Intermediate
Eldana	Resistant (Better than N27 and N41)
Nematodes	Intermediate (Better than N27 and N36, similar to N41)
Thrips	Intermediate (Better than N27 and N36)
Severe brown rust has been observed on N42.	

* 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)	No (only mediocre response)
Tandem (Ethephon + Fusilade Forte)	Yes (highly recommended)

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

IDENTIFICATION GUIDE

Habit and General Appearance

The growth habit is erect. The canopy is a fairly light green and has erect leaves, medium in width, usually with bent leaf tips. The older leaf sheaths or trash virtually cover and enclose the whole stalk.

Leaf

Blade: erect, medium in width, with bent leaf tips. Fairly light green in colour. Sometimes there are chlorotic blotches present.

Sheath: lightish green with some purple. There are also often pinkish or brown patches. Hairs are present. The trash can be peeled off fairly easily.

Collar: medium to narrow, green-yellow, often also has a slight purple tinge.

Auricle: absent.

Stalk

Internode

Medium length and thickness. There are often corky markings present. The stalk is yellow-green in colour, and can have a slight zigzag between the internodes.

Wax band: narrow to medium, fairly distinct.

Bud furrow: none.

Node

Growth ring: protrudes, yellow-green in colour.

Root band: medium to narrow in width, green-yellow in colour.

Sheath scar: neat, at a slight angle.

Bud: fairly small, rectangular, arises at the sheath scar.

Flange: narrow to medium width, arises at the top half of the bud, usually just reaches the growth ring.



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

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