



# Information Sheet

## 3. VARIETIES

### Variety N46

**Parents:** N25 x MO (group of male parents – identity of male parent unknown).  
Year of release: 2007.

**Permitted Pest, Disease and Variety Control Areas:** Lowveld, Pongola, Mkuze/  
Makhatini, Umfolozi.

Recommended for planting in the irrigated northern regions and harvesting late in the season.

#### BEST FEATURES

N46 has very good agronomic characteristics, featuring good germination and canopy formation. Good RV yields have been observed late in the season.

#### YIELD AND QUALITY\*

	Age at harvest (Months)**		
	12-15	15-18	18-24
Tons RV	<b>Moderate to low</b> 93% of N36 96% of N41 86% of N49	Not recommended	Not recommended
Cane yield	<b>Moderate</b> 98% of N36 98% of N41 100% of N49	Not recommended	Not recommended
RV %	<b>Moderate</b> 95% of N36 97% of N41 85% of N49	Not recommended	Not recommended
Fibre content	<b>Very low</b> 91% of N36 84% of N41 101% of N49	Not recommended	Not recommended

Mediocre RV yields have been achieved with N46 in recent trials compared with other varieties such as N36, N41, and N49. Compared with other varieties, N46 tends to give higher RV yields later in the season.

\*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.

#### LIMITING FEATURES

Eldana can be a major problem with this variety, and N46 should not be aged and carried over in the irrigated north. Severe tawny rust has also been observed on N46. Average RV yields of this variety have generally been poor in recent trials when compared with other commercial varieties.

#### SOIL SUITABILITY

Soil Group*	Performance
Grey crest to midslope	Moderate
Grey lower slopes	Moderate
Humics	Good
Red	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 ( <i>reports of poor germination in winter</i> )
Stalk Population	Very High (140 000 stalks/ha)
Stalk Height	Moderate
Canopy speed	Rapid and dense ( <i>similar to N25</i> )
Flowering	Rare
Lodging	Moderate ( <i>lodges at high tonnages</i> )
Ratoon regrowth	Rapid and reliable
Reaction to water stress	Poor
Reaction to waterlogging	Moderate

Similar agronomic characteristics to N25. It can lodge severely at high tonnages.

**REACTION TO DISEASES AND PESTS\***

Smut	Intermediate resistant ( <i>Better than N25, N36 and N41</i> )
Mosaic	Resistant ( <i>Better than N25, N36 and N41</i> )
Brown Rust	Intermediate ( <i>Poorer than N36, similar to N41 and N25</i> )
Tawny Rust	Susceptible ( <i>severe infections observed</i> )
Eldana	Intermediate
Nematodes	Susceptible
High eldana levels have been reported on N46 that has been carried over. Tawny rust is common on this variety and can be severe. Low thrips numbers have been observed in general.	

\* 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
Tandem (Ethephon + Fusilade Forte)	No
*The higher rates should be used when the chemical is applied by aircraft.	

**MILLING CHARACTERISTICS**

Colour (lower is better)	Low ( <i>lower than N25 and N41</i> )
Pith: Fibre ratio (low ratio is desirable)	Average ( <i>lower than N25 and N32</i> )
N46 shows good milling characteristics. It has the lowest colour of irrigated varieties tested in comparative trials (N19, N25, N32, N36 and N41), and lower pith content than N25, N32 and N41.	

**IDENTIFICATION GUIDE****HABIT AND GENERAL APPEARANCE**

Germinates and canopies well; high stalk population; tall stalks; may lodge occasionally

**LEAF**

**Blade:** Narrow-medium width of leaf blade at longitudinal mid-point; erect leaves; large, distinct ligule

**Sheath:** Medium adherence of leaf sheath to stalk; fine and abundant hairs on sheath; wax present; purple tinges present; green sheath

**Collar:** Dark green

**Auricle:** Very small, indistinct auricles present on both sides

**STALK**Internode

Bobbin-shaped; weak zig-zag alignment of stalk; some wax present; yellowish stalks when not exposed to the sun; green on exposure to the sun, becoming grey-red in colour after long exposure

**Wax band:** Present; more distinct on younger internodes; medium width

**Bud furrow:** Distinct; often extends the length of the internode

Node

**Growth ring:** Indistinct

**Root band:** Narrow; 2 rows of root primordial; root primordial often slightly raised

**Sheath scar:** Not neat; at a slight angle to the stalk

**Bud:** Ovate / pointed at top of bud; younger buds more pointed than older ones; large, raised buds; extend above the root band

**Flange:** Narrow



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