



# Information Sheet

2006

## 3. VARIETIES

### Variety N31

#### INTRODUCTION

**N**31 is recommended specifically for the Midlands and mist-belt areas (where eldana is not a problem). It has an extremely high cane yield with a low sucrose content, but in terms of tons RV it is very good. Because of the very high cane yield of N31 this variety should be planted fairly close to the mill. It should also be harvested at 18-24 months, when the purity is expected to be high. Purities are very low when harvested younger than 18 months. To make this variety more economically viable at a distance from the mill a lower topping height is recommended. N31 is recommended for marginal and low potential soils (sands, NGS Ordinary, Dwyka), where slight moisture stress will improve the quality of this variety.

**Origin:** SASRI, South Africa

**Year of release:** 1997

**Variety Code:** 85H0241

**Parentage:** 69E0991 x MP

#### CANE QUALITY & YIELD

**Tons RV:** Average RV yield is 117%N12 (when harvested older than 15 months), 113%N16, 121%NCo376. In Midlands trials average RV yields were 143%N12, and 150%NCo376. Yields are better relative to other varieties on the lower potential soils (Average is 2 t RV/ha >NCo376 on NGS Ordinary).

**Cane yield:** Very high (much higher than N12, N16, NCo376)

**RV content:** Low (93%N12, 95%N16, 97%NCo376)

**Fibre content:** High (103%N12, 109%N16, 109%NCo376)

**Purity:** Low

**Fibre:sucrose ratio:** High

**Non-sucrose:sucrose ratio:** High

#### AGRONOMIC CHARACTERISTICS

**Germination (speed and reliability):** Rapid and reliable

**Stalk population (at harvest):** High: 127 000/ha

**Stalk mass (at harvest):** Medium

**Stalk height (at harvest):** Very tall

**Stalk elongation:** Very rapid

**Canopy formation:** Rapid

**Flowering:** Moderate

**Lodging:** Moderate/severe

**Ratooning ability (speed and reliability):** Rapid and reliable

#### REACTION TO DISEASES & PESTS

**Smut:** Susceptible

**Mosaic:** Intermediate

**RSD:** Susceptible

**Brown Rust:** Intermediate

**Tawny Rust:** Intermediate

**Leaf scald:** Unknown

**Red rot:** Susceptible

**Nematodes:** Intermediate

**Eldana:** Intermediate

#### REACTION TO WATER STRESS

**Growth during severe water stress:** Good

**Recovery after water stress:** Good

**Ratooning after drought:** Good

**Poorly drained soils:** Moderately tolerant

**Salinity tolerance:** Unknown



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**NUTRITION**

Nitrogen use efficiency: Moderate to high

**RIPENER RECOMMENDATIONS**

Fusilade Forte: Ground rigs (250 ml/ha), Aerial (275 ml/ha): Yes

Ethephon (1.5 l/ha): Yes

Gallant Super: No data

Tandem (Ethephon + Fusilade Forte): Yes

**HARVESTING**

Best months: Jul-Dec

**BEST FEATURES**

*N31 has exceptionally high cane and subsequent sucrose yields in the Midlands. This variety is excellent on low yield potential and sandy soils in the Midlands. High N use efficiency indicates that a lower rate of N fertiliser can be applied. N31 has a moderate to high tolerance to Aluminium toxicity.*

**LIMITING FEATURES**

*N31 is only recommended for the Midlands and mistbelt areas. It is currently being re-evaluated in Coastal areas. It is susceptible to smut and red rot. N31 has a very low sucrose content and should not be harvested younger than 18 months. The stalks of N31 tend to have a lot of pith in them. Do not carry over on the Coast or in areas where there is water stress and eldana is a problem. Eldana may become a problem on the more marginal soils in coastal hinterland/mistbelt areas. Extensive bull shoots may develop when N31 lodges. N31 has significant hairs on stalks which labour don't like when trashing this variety. Fibre:sucrose ratio is generally high (higher than N12).*

## Identification Guide

**HABIT AND GENERAL APPEARANCE**

A tall variety that has a high population of thin, greenish stalks with a slightly open growing habit.

**LEAF**

**Blade:** medium to narrow in width. Can be light green to green in colour, sometimes with chlorotic blotches present on the midrib. Colour of the midrib is often yellowish on the underside, while the top appears very white or in distinct contrast to the rest of the blade.

**Sheath:** many hairs present, greenish-yellow in colour. Older sheaths often have reddish and brown blotches. Trash can be removed easily.

**Collar:** narrow to medium, brownish-purple.

**Auricle:** none.

**STALK****Internode**

Thin, yellowish-green in colour with sooty black patches and, where not covered by the trash, green. Corky blotches sometimes present. Internodes are fairly long and often slightly staggered.

**Wax band:** narrow, fairly distinct.

**Bud furrow:** usually absent.

**Node**

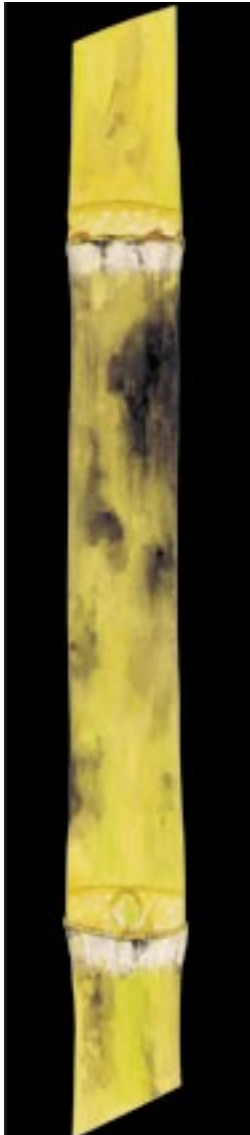
**Growth ring:** greenish, turning to yellow on older internodes. Protrudes slightly.

**Root band:** width medium to narrow, yellowish in colour.

**Sheath scar:** slanting, otherwise neat.

**Bud:** small, can be slightly longer than broad.

**Flange:** width medium to narrow, normally arising from the middle of the bud, sometimes with small ear-like flaps. The flange usually just reaches the growth ring.



All variety information sheets are available at <http://www.sugar.org.za/sasri/variety/index.htm>

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