

# Information Sheet

## 13. VARIETIES

### 13.7 Variety N19

#### INTRODUCTION

**N**19 is commonly grown in the northern irrigated region. It also yields well in the rainfed region along the coast on higher potential soils (good alluvium, dolerite, Vryheid sediments) harvested annually. N19 yields well under irrigation on a range of soils (alluvium, dolerite, Vryheid sediments) and requires good irrigation management. N19 is also suited to the North Coast and Zululand regions. Do not plant on the South Coast, in the Midlands or in Mistbelt areas as it is susceptible to mosaic. For the same reason (mosaic) do not plant N19 in the late season in Mpumalanga.

**Origin:** SASRI, South Africa

**Year of release:** 1986 (North) / 1989 (South)

**Variety Code:** 75F2753

**Parentage:** NCo376 x CB40/35

#### CANE QUALITY & YIELD

**Tons RV:** Average is similar to N14, but it is superior to NCo376 and N14 when harvested early to mid-season. Poorer than N14 on sandy soils. Under favourable rainfed conditions will produce very high sucrose yields when cut annually (111%N12). Average RV yields are 1.5 t RV/ha >NCo376 on Lower/Middle Ecce, 1 t RV/ha >NCo376 on alluvium, 0.8 t RV/ha >NCo376 on dolerite.

**Cane yield:** Low-moderate (lower than NCo376, N12, N16 and N14)

**RV content:** High (average is 113%NCo376, 110%N12, 109%N16, 108%N14)

**Fibre content:** Moderate (100%NCo376, 95%N12, 99%N16, 103%N14)

**Purity:** High

**Fibre:sucrose ratio:** Low

**Non-sucrose:sucrose ratio:** Low

#### AGRONOMIC CHARACTERISTICS

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

**Stalk population (at harvest):** Medium: 112 000/ha

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

**Stalk height (at harvest):** Average

**Stalk elongation:** Rapid

**Canopy formation:** Rapid

**Flowering:** Sparse

**Lodging:** Severe and prone to early lodging

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

#### REACTION TO DISEASES & PESTS

**Smut:** Resistant

**Mosaic:** Susceptible

**RSD:** Susceptible

**Rust:** Resistant

**Leaf scald:** Highly resistant

**Red rot:** Susceptible

**Nematodes:** Highly susceptible

**Eldana:** Intermediate-susceptible

#### REACTION TO WATER STRESS

**Growth during severe water stress:** Poor

**Recovery after water stress:** Poor

**Ratooning after drought:** Moderate

**Poorly drained soils:** Intolerant

**Salinity tolerance:** Tolerant

#### 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:** 150-165 ml/ha

**Tandem (Ethephon + Fusilade Forte):** Yes - highly recommended

**HARVESTING**

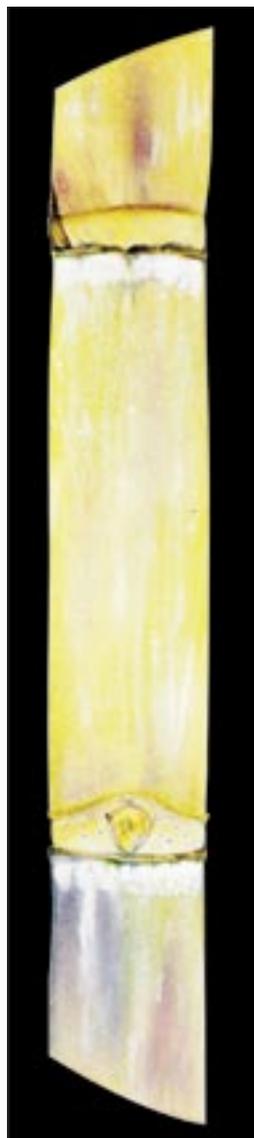
**Best months:** Apr-Aug, best early in the season

**BEST FEATURES**

*N19 has a high sucrose content. It is resistant to smut. N19 is best suited to early season, annual harvesting. It has a high tolerance to Aluminium toxicity. High N use efficiency indicates that a lower rate of N fertiliser can be applied to this variety. Good yields will be produced in soils of moderate depth (clay content >20%). It is recommended for irrigated areas as well as for rainfed areas. N19 is only recommended for annual harvesting. Under rainfed conditions N19 yields best at lower altitudes and in the coastal areas of North Coast and Zululand. N19 has good milling characteristics and has a very low pith:fibre ratio, resulting in good extraction at the mill.*

**LIMITING FEATURES**

*N19 is susceptible to mosaic. Do not carry over on the Coast or in areas where there is water stress and eldana is a problem. N19 tends to lodge and ratooning ability is generally poor because it has a shallow rooting system. Crooked sticks can lead to poor stack/load weights. Generally poorer payloads are achieved with this variety. Yield performance is poor under waterlogged and water stressed conditions, especially on sandy soils. N19 is very sensitive to heavy traffic, especially when wet. Avoid planting in areas that are prone to water stress. Avoid planting and harvesting in Spring and Summer in Onderberg area, where mosaic has become a problem. Plant only in Autumn and keep this variety on an early to mid-season cutting cycle (up to end of Aug).*



## Identification Guide

**HABIT AND GENERAL APPEARANCE**

A very quick growing variety, with an open growth habit and a medium stalk population.

**LEAF**

**Blade:** medium to broad in width; slightly drooping. A well defined chlorotic blotch is present, and chlorosis may be present on the lamina as well as the midrib.

**Sheath:** the abaxial surface is usually very hairy, with the hairs being rather short and spiny.

**Collar:** medium width; indistinct green-brown in colour.

**Auricle:** usually present, being well developed, broad and lance-shaped.

**STALK****Internode**

Yellow-green in colour. Trash clings loosely. When exposed a purple colour develops, so the stalk appears to be purple.

**Wax band:** much wax is present on the internode, so the band may be indistinct.

**Bud furrow:** absent.

**Node**

**Growth ring:** yellow to yellow-brown. Sometimes slightly raised to form a small ridge. Distinct wave over bud.

**Root band:** narrow and slightly swollen; root primordia distinct with purple centres.

**Sheath scar:** protruding and sagging below the bud.

**Bud:** arises slightly above the sheath scar and is typically circular or oval in shape.

**Flange:** medium width; arises well above the centre of the bud.