



Information Sheet

2006

13. VARIETIES

13.24 **Variety N39**

INTRODUCTION

N39 is best suited to low potential soils, particularly sandy (Red and Grey recent sands) and NGS Ordinary soils. It performs poorly on shales. Growth has been good during the drought. While this variety may be harvested annually it is a very good variety for carryover as it has very good eldana resistance. Better than N21 and N33 in terms of tons RV.

Origin: SASRI, South Africa

Year of release: 2002

Variety Code: 89L0430

Parentage: CP67-411 x 75L1157

CANE QUALITY & YIELD

Tons RV: RV yields are very high on lower potential soils (1.5 tRV/ha >NCo376 on Red and Grey recent sands, 0.5 t RV/ha >NCo376 on NGS Ordinary, 1 t RV/ha >NCo376 on NGS Mistbelt). Average RV yield is 97%N12 when harvested older than 15 months, 130%N12 when harvested annually.

Cane yield: Moderate to high (lower than N12 and N16, similar to NCo376) depending on soils

RV content: High (106%N12, 110%N16, 110%NCo376)

Fibre content: Moderate to high (104%N12, 102%N16, 105%NCo376)

Purity: Moderate

Fibre:sucrose ratio: Moderate

Non-sucrose:sucrose ratio: Low

AGRONOMIC CHARACTERISTICS

Germination (speed and reliability): Rapid and reliable

Stalk population (at harvest): High: 120 000/ha

Stalk mass (at harvest): Medium

Stalk height (at harvest): Tall

Stalk elongation: Rapid

Canopy formation: Medium

Flowering: Moderate, produces side shoots readily

Lodging: Slight

Ratooning ability (speed and reliability): Rapid and reliable

REACTION TO DISEASES & PESTS

Smut: Susceptible

Mosaic: Intermediate

RSD: Intermediate-resistant

Rust: Intermediate

Nematodes: Intermediate

Eldana: Resistant

REACTION TO WATER STRESS

Growth during severe water stress: Good

Recovery after water stress: Good

Ratooning after drought: Good



Rainfed

RIPENER RECOMMENDATIONS

Fusilade Forte: Ground rigs (250 ml/ha), Aerial (275 ml/ha): No data

Ethephon (1.5 l/ha): No

Gallant Super: No data

Tandem (Ethephon + Fusilade Forte): No data

HARVESTING

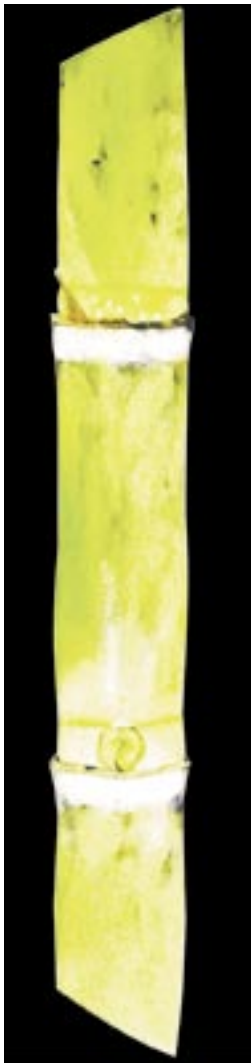
Best months: Jul-Dec

BEST FEATURES

N39 is resistant to eldana. It can be aged and is a good variety for carryover. Suitable for the low potential sandier soils (Cartref, Kroonstad, Red and Grey recent sands). It outperforms N12 on the coastal sands. Initial indications are that N39 has good milling characteristics in that it has a very low pith:fibre ratio, thereby leading to good extraction in the mill.

LIMITING FEATURES

N39 is susceptible to smut. It has a poor yield performance on heavy clay soils, alluvial soils and shallow soils. Do not plant N39 on shallow hilltops. Initial trial results indicate that N39 is not suitable for the Midlands. N39 is susceptible to red spider mite during periods of dry weather.



Identification Guide

HABIT AND GENERAL APPEARANCE

A tall variety that has an erect growth habit. The stalks are medium to thin. The canopy is fairly light green and has erect leaves, medium in width, usually with bent leaf tips.

LEAF

Blade: erect, medium in width with bent leaf tips. Fairly light green in colour, often with chlorotic blotches on both the midrib and blade.

Sheath: light green, normally with no hairs present. The trash can be peeled off fairly easily.

Collar: medium width, green-yellow; often also has slight purple colour.

Auricle: no auricle present.

STALK**Internode**

Medium length and fairly thin. There are often corky markings present. Light yellow-green in colour, becoming green-yellow on exposure. The stalks can have a slight stagger or zigzag.

Wax band: narrow to medium; fairly distinct.

Bud furrow: none.

Node

Growth ring: medium width; yellow-green.

Root band: medium width; green-yellow in colour.

Sheath scar: neat.

Bud: round/ovate; arises at the sheath scar.

Flange: narrow to medium width; usually just reaches the growth ring.

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