Information Sheet

13. VARIETIES

13.14 Variety N27

INTRODUCTION

N27 is suited to a wide range of soils and conditions. However, the best yields have been obtained on heavy clay soils. It yields poorly on very sandy soils. It has a high sucrose yield, similar cane yield but much higher sucrose content than NCo376. Yields tend to improve with ratoons. There have been good trial results on some shallow/clay soils and coastal shales. This variety appears to be hardy as most testing has been done during the drought years. It should be harvested at 12 months of age as it is susceptible to eldana. Young leaves of N27 are often purple, more commonly through winter, but as the cane grows older the leaves become green.

Origin: SASRI, South Africa

Year of release: 1996

Variety Code: 82E0123

Parentage: NiN2 x N52/219

CANE QUALITY & YIELD

Tons RV: Better than NCo376 and N12 at 12 months but worse than NCo376 and N12 when harvested older than 16 months. Yield advantage decreases with increasing age. Average RV yields are 1.5 t RV/ha >NCo376 on Vryheid sediments, 0.5 t RV/ha >NCo376 on Alluvium, 1.4 t RV/ha >NCo376 on dolerite, 0.5 t RV/ha >NCo376 on Dwkya, 1.1 tRV/ha >NCo376 on NGS Ordinary. Best RV yields obtained at 12 months, mid-late season. Low RV content when harvested early season.

Cane yield: High (higher than NCo376 and N12 when harvested at 12 months) and (lower than NCo376 and N12 when harvested older than 16 months)

RV content: High, 113%NCo376, 107%N12 at 12mths and 107%NCo376, 102%N12 older than 16 mths

Fibre content: Moderate to high (105%NCo376, 99%N12, 103%N16)

Purity: Moderate to high

Fibre:sucrose ratio: Low to moderate

Non-sucrose:sucrose ratio: Low

AGRONOMIC CHARACTERISTICS

Germination (speed and reliability): Fairly slow, but reliable

Stalk population (at harvest): High: 122 000/ha

Stalk mass (at harvest): Medium

Stalk height (at harvest): Average

Stalk elongation: Moderately rapid

Canopy formation: Slow in plant cane, moderately rapid in ratoons.

Flowering: Profuse

Lodging: Slight

Ratooning ability (speed and reliability): Moderate speed and reliable (improves with ratoons)

REACTION TO DISEASES & PESTS

Smut: Resistant

Mosaic: Resistant

RSD: Intermediate-resistant

Rust: Intermediate

Leaf scald: Resistant

Red rot: Resistant

Nematodes: Highly susceptible

Eldana: Susceptible

REACTION TO WATER STRESS

Growth during severe water stress: Good

Recovery after water stress: Good

Ratooning after drought: Moderate
Poorly drained soils: Tolerant
Salinity tolerance: Moderately sensitive

NUTRITION

Nitrogen use efficiency: Moderate

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): No data

HARVESTING

Best months: Jul-mid Oct (when flowered)

BEST FEATURES

N27 is an erect variety with a high RV yield. N27 is a good "all seasons" variety. It is a fairly hardy variety under water stressed conditions. N27 also yields well in good rainfall years. It has a good resistance to diseases. While plant crop yields are generally mediocre, ratoon yields are very good. N27 has loosely clinging trash and is well suited to green cane harvesting. N27 has some tolerance to waterlogging. N27 has a moderate tolerance to Aluminium toxicity. Good payloads are achieved with this variety. N27 can be harvested inland (up to 550 m) at 16-18 months in good soils.

LIMITING FEATURES

N27 is susceptible to the eldana borer. Do not carry over on the Coast or in areas where there is water stress and eldana is a problem. Germination tends to be slow and poor resulting in mediocre plant crop yields. Special care needs to be taken at planting. Results on sandy soils (Cartref, weak coastal sands) have been mediocre which indicate that this variety is best suited to soils with a higher clay content. Poor yields were obtained in the Midlands. The sucrose (RV) content can be low when harvesting early in the season (cane is immature at this time of the year). Chemical ripening could be considered if the variety is harvested at this time and there is no water stress. Flowering can be profuse, do not harvest after mid-October. The leaves of N27 are often seen with yellow midribs - this is the yellow leaf syndrome. Often infected with rust, but usually not as severely as N29.

Identification Guide

HABIT AND GENERAL APPEARANCE

A fairly erect variety with a good population. Canopy has a slightly droopy appearance, and in cool conditions can have a distinctly purple tinge.

LEAF

Blade: medium width; sometimes has a slightly speckled, yellowish midrib on the underside. In young cane or cool conditions, the edge of the blade is purplish. There may also be a purplish tinge towards the tip of the blade.

Sheath: sometimes with hairs; light green with purplish mottling and/or patches. In good growing conditions, purplish colouring is virtually absent.

Collar: medium to narrow; often purplish.

Auricle: usually present; small and fairly broad; on one side only.

STALK

Internode

Medium diameter; yellowy, particularly on lower part. Has a pinkish tinge, turning to purple on exposure. A fair amount of wax coating present.

Wax band: narrow to medium width; can be indistinct.

Bud furrow: normally absent.

Node

Growth ring: yellow to yellowish-green and distinct in younger internodes.

Root band: yellow; medium to narrow; often with two rows of root primordia.

Sheath scar: does not protrude below the bud.

Bud: medium to small; round.

Flange: medium width; usually extends beyond the growth ring.