



Information Sheet

2006

3. VARIETIES

Variety N14

INTRODUCTION

N14 is still one of the most widely grown varieties in the northern irrigated region. Should be planted in moderate to high potential soils and generally in good growing conditions. Under irrigated conditions N14 requires above average amounts of K.

Origin: SASRI, South Africa

Year of release: 1980

Variety Code: 71F1842

Parentage: N7 x MP

CANE QUALITY & YIELD

Tons RV: Yields best harvested annually under favourable soil conditions when harvested mid-late season

Cane yield: High (similar to NCo376, higher than N19)

RV content: Low (93%N19, 103%NCo376, lowest in winter, moderate in spring)

Fibre content: Moderate (approx 12.7% fibre, 97%N19, 95%NCo376)

Purity: Moderate

Fibre:sucrose ratio: Low

Non-sucrose:sucrose ratio: Low

AGRONOMIC CHARACTERISTICS

Stalk population (at harvest): Medium: 111 000/ha

Stalk mass (at harvest): High

Stalk height (at harvest): Tall

Stalk elongation: Rapid

Canopy formation: Rapid

Flowering: Profuse

Lodging: Erect

REACTION TO DISEASES & PESTS

Smut: Intermediate

Mosaic: Intermediate

RSD: Highly susceptible

Brown Rust: Intermediate

Tawny Rust: Unknown

Leaf scald: Resistant

Red rot: Resistant

Nematodes: Resistant

Eldana: Susceptible

REACTION TO WATER STRESS

Growth during severe water stress: Poor

Recovery after water stress: Poor

Ratooning after drought: Poor

Poorly drained soils: Moderately tolerant

Salinity tolerance: Moderately tolerant

NUTRITION

Nitrogen use efficiency: Low



Irrigated

RIPENER RECOMMENDATIONS

Fusilade Forte: Yes (Ground rigs: 333 ml/ha, Aerial: 367ml/ha)

Ethephon (1.5 l/ha): No

Gallant Super: 200-220ml/ha

Tandem (Ethephon + Fusilade Forte): No

HARVESTING

Best months: Jul-mid Aug

BEST FEATURES

N14 is a reliable variety that produces good yields in good growing conditions. It is resistant to lodging.

LIMITING FEATURES

N14 has a low sucrose content. It is not suited to shallow, weak or poorly drained soils. Recovery after water stress is poor. Susceptible to eldana. Do not carry over on the Coast or in areas where there is water stress and eldana is a problem. N14 flowers profusely and harvesting after mid-October should be avoided. Cane yields after mid-Aug are poor. Low N use efficiency indicates that a higher rate of N fertiliser is generally required for this variety. N14 is highly susceptible to RSD; the rate of spread is rapid and yield losses are high. Although truck weights are generally good, the higher cane yield and lower RV content indicates that this variety should not be planted too far away from the mill. N14 does not respond well to ripener treatment. Higher rates of Fusilade and Gallant are required, while there is no response when Ethephon is applied.

Identification Guide

HABIT AND GENERAL APPEARANCE

Characteristically a prostrate habit of growth after germination. Canopies quickly, and eventually becomes erect with straight stalks.

LEAF

Blade: a slight chlorotic blotch may be present, but it is less prominent than that of NCo376. The midrib often shows a reddish colouration, a reaction to sap sucking insects.

Sheath: has a slight purplish colour which is overlaid with much wax coating. The inside may show a purple colouration, but is often white. The abaxial surface is profusely hairy, but the hairs are relatively soft and not spiny. The trash breaks away from the stalk easily and leaves a neat, clean sheath scar.

Collar: narrow to medium width; indistinct greenish-brown in colour.

Auricle: small and rounded; usually occurs on one side of the stalk but may be totally absent.

STALK**Internode**

Cylindrical and circular in cross-section. Greenish-yellow in colour. When exposed to sunlight develops only slight sunburning compared with NCo376.

Wax band: medium width, distinct and constricted.

Bud furrow: may develop when the cane is growing under conditions of stress, but is generally absent.

Node

Growth ring: yellowish-brown; often raised.

Root band: typically narrow, with only two rows of dark-centred root primordia.

Sheath scar: does not sag nor protrude; clean, without tearing.

Bud: arises at the sheath scar; medium sized; oval in shape, with the narrow end towards the sheath scar. Usually a small indentation at the apex, which in young buds may be fringed with hairs.

Flange: medium in width, arising above the middle of the bud.



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

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