



Information Sheet

13. VARIETIES

13.32 Variety N47

Parents: 87M0965 x N12. Year of release: 2007.

Permitted Pest, Disease and Variety Control Areas: Mkuze/Makhatini, Umfolozi, Felixton, Entumeni, Amatikulu, North Coast, Midlands North, Midlands South, Sezela, Umzimkulu.

Recommended for planting in the coastal and hinterland regions and harvesting between 15 to 18 months of age.

BEST FEATURES

N47 generally produces good RV yields under average to low potential conditions along the coast and hinterland, when aged and carried over, and when eldana levels are high. It has very good disease resistance and excellent eldana resistance. It has a higher RV% than N12. It also has good resistance to brown rust. Tawny rust has not been observed on this variety.

LIMITING FEATURES

Very slow canopy formation. Not suited to the coastal 12 month cutting cycle. It is generally outperformed by other varieties in the midlands region. N47 is sensitive to hot water treatment.

YIELD AND QUALITY*

| | Age at harvest (Months)** | | |
|---------------|--|---|---|
| | 12-15 | 15-18 | 18-24 |
| Tons RV | Moderate to low | Moderate | Low |
| | 156% of N12 93% of N39 95% of N41 | 116% of N12 95% of N39 83% of N48 | 90% of N12 81% of N31 67% of N48 |
| Cane yield | Moderate | Moderate | Low |
| | 132% of N12 97% of N39 99% of N41 | 109% of N12 97% of N39 86% of N48 | 86% of N12 73% of N31 67% of N48 |
| RV % | Moderate | Moderate to high | High |
| | 115% of N12 95% of N39 95% of N41 | 107% of N12 99% of N39 95% of N48 | 104% of N12 104% of N31 101% of N48 |
| Fibre content | Moderate to high | Moderate | Moderate |
| | 94% of N12 103% of N39 106% of N41 | 99% of N12 98% of N39 101% of N48 | 102% of N12 101% of N31 101% of N48 |

Latest trial results show that N47 is not suited to harvesting on a coastal short cutting cycle, where it is generally outperformed by other varieties such as N39 and N41. RV yields of N47 tend to improve with increasing harvest age, with an optimum around 15 to 18 months of age. The relative advantage of N47 increases as eldana pressure increases in the coastal and hinterland regions. In the midlands, N47 has been outperformed by other varieties like N31 and N48. Recent trial results indicate that N47 shows very good yield responses when growing through a cane residue layer.

*Based on average performance relative to control varieties under the same conditions. Performance may vary under different conditions and management.

**Harvest age is related to region, where 12-15 months represents coastal, 15-18 represents hinterland, and 18-24 represents midlands conditions, in general.

SOIL SUITABILITY

| Soil Group* | Performance |
|------------------------|---|
| Grey crest to midslope | Moderate (<i>tends to stress in very sandy soils</i>) |
| Grey lower slopes | Good |
| Humics | Moderate to poor (<i>relative to other varieties</i>) |
| Red | Moderate |
| Black structured | Moderate to poor |

*For soil forms that fall within these groups consult SASRI's Soils Bulletin or your local Extension Specialist

AGRONOMIC CHARACTERISTICS

| | |
|--------------------------|--|
| Germination | Intermediate to slow (<i>similar to N12</i>) |
| Stalk Population | Moderate (<i>120 000 stalks/ha</i>) |
| Stalk Height | Moderate (<i>170 cm</i>) |
| Canopy speed | Slow (<i>prostrate growth habit</i>) |
| Flowering | Rare |
| Lodging | Moderate to low |
| Ratoon regrowth | Moderate speed but reliable |
| Reaction to water stress | Good |
| Reaction to waterlogging | Unknown |

N47 is characterised by a prostrate (flat) growth habit. It generally forms a canopy very slowly (similar to N12). Slow growth has been observed through a crop residue layer, however, this does not negatively affect yields.

N47 is sensitive to HWT.

| REACTION TO DISEASES AND PESTS* | |
|---------------------------------|--|
| Smut | Intermediate (<i>Better than N16, N31 and N50</i>) |
| Mosaic | Intermediate resistant (<i>Better than N12, poorer than N48</i>) |
| Brown Rust | Resistant (<i>Better than N31, N37 and N39</i>) |
| Tawny Rust | Has not been observed |
| Eldana | Intermediate resistant (<i>Better than N48</i>) |

This variety has generally shown very good eldana resistance in trials and in commercial production (one of the most eldana resistant varieties available). Low thrips numbers have been observed in general.

* Reactions vary depending on pest and disease pressure and were accurate at the time of publishing.

| REACTION TO CHEMICAL RIPENING | |
|------------------------------------|-----|
| Fusilade Forte (250 – 275 ml/ha)* | Yes |
| Ethephon (1.5 L/ha) | Yes |
| Tandem (Ethephon + Fusilade Forte) | No |

*The higher rates should be used when the chemical is applied by aircraft.

| MILLING CHARACTERISTICS | |
|--|---|
| Colour (lower is better) | Intermediate (<i>Lower than NCo376</i>) |
| Pith: Fibre ratio (Low ratio is desirable) | Low |

N47 has lower colour than NCo376 but higher colour than N29. It has 10% less pith than NCo376, and 20% less than N29.

IDENTIFICATION GUIDE

HABIT AND GENERAL APPEARANCE

Slow to germinate and canopy; stalk population intermediate, lower than N12

LEAF

Blade: Medium blade width at longitudinal mid-point; fairly erect leaves; small chlorotic patches on mid-rib; large ligule

Sheath: Medium adherence to the stalk; very waxy sheath; coarse and long hairs present; green with purple on exposed parts

Collar: Indistinct; darker green

Auricle: Medium and broad on one side and small and broad on the other side; both with distinct tufts of hair

STALK

Internode

Conoidal (wide at the bottom of the internode near the bud, narrow at the top of the internode); weak to medium zig-zag stalk alignment; pale yellow when not exposed to the sun; some wax present on the internodes

Wax band: Indistinct; very narrow

Bud furrow: Absent

Node

Growth ring: Protruding growth ring; indistinct

Root band: Medium to broad root band

Sheath scar: Present; protruding; distinct

Bud: Rhomboid; young buds are pinkish-red; bud does not always reach growth ring

Flange: Narrow and indistinct



Updated by Sanesh Ramburan (Senior Agronomist: Varieties) November 2016