



## NovaCane® The pain-free seedcane

The South African Sugarcane Research Institute's (SASRI) Plant Breeding Programme develops and releases new sugarcane varieties with high sugar yield and better pest and disease resistance and performance for a range of agro-climatic conditions. Research on the successful NovaCane® production began in 2000, offering a technique for the rapid multiplication of true-to-type, disease-free plants of new varieties bred. It has also been used to increase the multiplication rate for certified seedcane production thereby improving the supply of seedcane to growers.

The process involves the excision of small (2mm) shoot tips followed by shoot multiplication, so that virus elimination is achieved. NovaCane® plants are acclimatised (hardened off) for three months before they are then planted into the field.

Previously, the NovaCane® technique was used to multiply pre-release varieties that were transferred from research

stations in the northern region to the southern regions for testing. This was usually not possible due to the cordon sanitaire that is in place to restrict the movement of sugarcane stick that may carry harmful pests or diseases.

In 2016 a laboratory facility at Mount Edgecombe was built to support the large-scale production of NovaCane® plants to meet Plant Breeding Programme needs.

New varieties identified for bulking in 2017 were multiplied in the new NovaCane® lab and sent for hardening off to an outsourced service provider (Zululand Nurseries in Eshowe) with 145 000, quality-controlled, plants being supplied to bulking co-operators in the spring of 2017.

This year, however, the SASRI NovaCane® facility has produced a record number of NovaCane® plants that are currently being hardened off at Zululand Nurseries. The varieties being supplied include N69, N74, N75, N76, N77 and N12 Zapyr.



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