

POSTER SUMMARY

NOVACANE® – A BOOST FOR SEEDCANE SCHEMESSNYMAN SJ^{1,2}, REDSHAW KA¹ AND STRANACK R¹¹South African Sugarcane Research Institute, Private Bag X02, Mount Edgecombe, 4300,²University of KwaZulu-Natal, School of Life Sciences, Westville Campus, Private Bag X54001,
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Abstract

NovaCane® is a tissue culture process that involves the micropropagation of disease-free and true-to-type sugarcane germplasm. The technique involves apical meristem excision followed by *in vitro* shoot multiplication and rooting of plantlets. Acclimation to environmental conditions is achieved in seedling trays in a shade-house for two weeks before a 10 week growth period under ambient conditions. To establish plantlets during the subsequent field planting, irrigation is required. Currently, NovaCane® plants are produced by Dube Tradeport AgriLab and acclimation is sub-contracted to designated nurseries. In addition to AgriLab micropropagating selected local N cultivars for commercial growers, SASRI have entered into a Plant Material Cultivation agreement with them to bulk up pre-release varieties for the Plant Breeding Programme. Although NovaCane® plants are equally susceptible to pests and diseases as traditionally propagated germplasm, the advantage offered by the technology is that it enables the establishment of first stage seedcane nurseries with good quality, disease-free and true-to-type material. Although there have been several impediments to the widespread adoption of the technology in the sugar industry, these initial technical obstacles have been overcome, making it an attractive option for establishing sources of seedcane.

Keywords: sugarcane, seedcane, NovaCane®, tissue culture, acclimation