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LOWER SOUTH COAST EXTENSION MATTERS

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RESULTS OF THE PADDOCK VARIETY TRIAL (plant and first ratoon crops)

TRIAL DETAILS

The first ratoon crop of the Hinterland Variety Trial (planted in September 2017) was harvested in November 2020. The plant crop was harvested in May 2019 at 20 months and the first ratoon crop was harvested in November 2020 at 18 months. The trial is situated in Paddock, on a Natal Group Sandstone parent material and the soil form is a Cartref. There are 20 varieties in the trial, replicated five times, resulting in 100 plots. The trial was not sprayed either for eldana control or for chemical ripening.

RESULTS

The results of two parameters are discussed, namely

1. RV yield (which is a product of Cane yield and RV%); and
2. %internodes bored (which is a good measure of eldana damage).

The results represent a combined analysis of both plant and 1st ratoon crops.

RV YIELDS

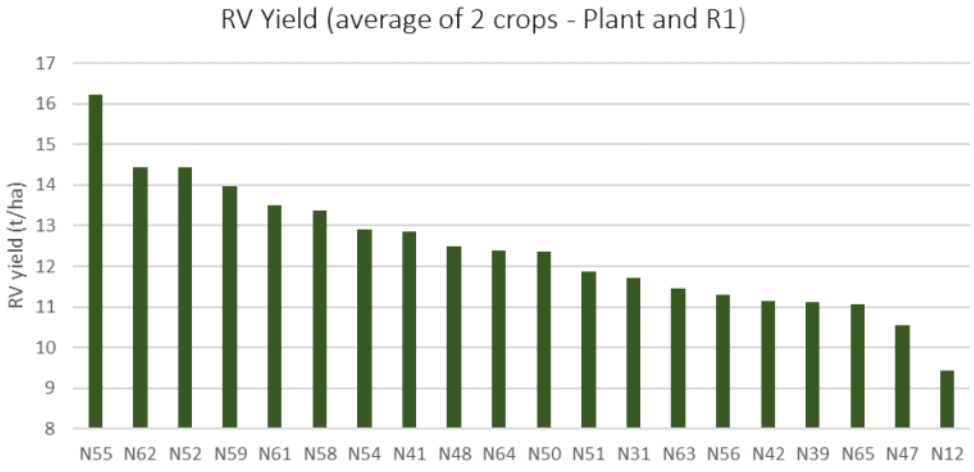

Figure 1: Varieties ranked according to RV yield, from the highest to the lowest.

COMMENTS ON THE TOP FIVE BEST PERFORMERS

N55 had the highest RV yield, mostly attributed to its high RV%. It is suited for both coastal and hinterland conditions under a wide range of soil types.

N62 and N52 ranked the 2nd and 3rd in terms of RV yield. These are high yielding varieties and this attributes to their high RV yield. These varieties are suited for inland growing conditions. These varieties must be aged due to low sucrose content.

N59 ranked 4th in RV yield and this is attributed to both its RV% (which was 2nd highest in the trial) as well as its cane yield (which was the 6th highest in the trial). It is suited to average to high potential soils for coastal longer cutting cycle and hinterland areas.

N61 ranked 5th in the trial. It grows and canopies quicker than all varieties in the trial, but it is prone to lodging. It is suited to inland conditions under sandy soils.

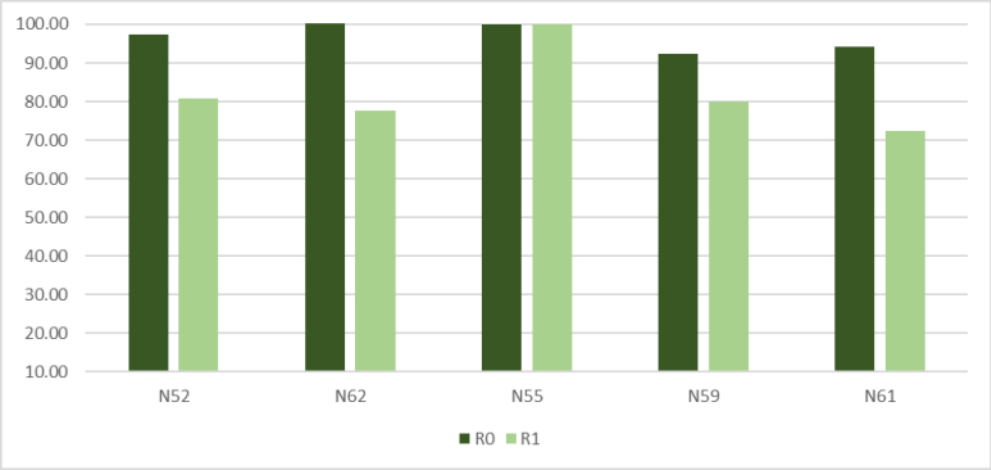

Figure 2: RV Yield performance of the Top 5, as a percentage of N55 for both plant (R0) and first ratoon (R1) crops.

N55 showed remarkable increase in RV yields from plant crop to first ratoon, even though the first ratoon crop was harvested younger than plant cane. This shows that 18 months is the optimum harvest age for hinterland varieties like N55, N59 and N58 as these showed better RV yields harvested at 18 months. Inland varieties like N52, N62 and N61 showed an RV yield reduction when harvested at 18 months compared to the plant cane harvest which was at 20 months.

ELDANA DAMAGE

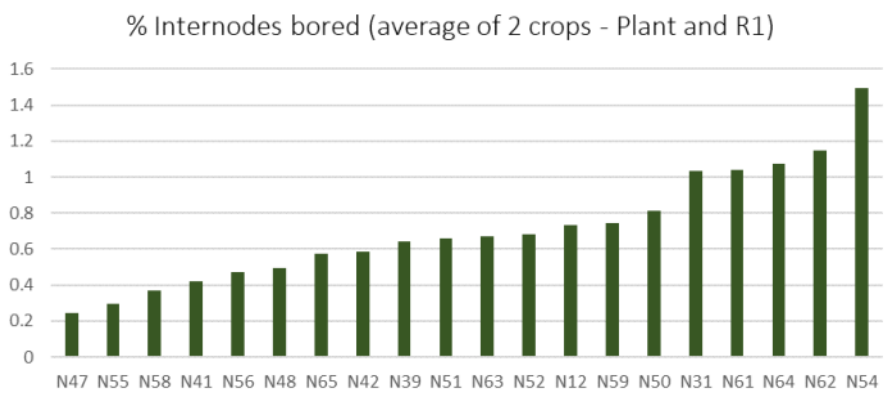

Figure 3: Varieties ranked according to % Internodes bored, from the least damaged to the most damaged.

N47 is intermediate resistant to eldana and this was observed in this trial on both plant and first ratoon crops where it had the least damage of all the varieties.

N55 did not only have high RV yield but it also had good eldana resistance. It is interesting to observe that varieties suited for the coastal areas showed the lowest damage compared to inland varieties who were the most damaged.

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