

Performance of new avocado rootstocks at Westfalia Estate

D.J. Roe & T.M. Morudu

Merensky Technological Services, Duivelskloof 0835 email: mts@pixie.co.za

INTRODUCTION

As in other tree fruit crops, there is a realisation in most major avocado producing countries that in order to optimise the management of their avocado orchards, more clonal rootstocks will have to be used in the future.

South Africa is well advanced in this respect, with most new plantings on Duke 7 rootstock, and the first local clonal rootstocks selected during the 1980's at Westfalia Estate, viz. Merensky, Merensky 2, Merensky 3, Merensky 4 and Jovo. Evaluation of these rootstocks has been carried out both in South Africa (Botha, 1991; Roe *et al.*, 1995, 1996, 1997, 1998) and in California (Menge, 1998) (Table 1).

PRELIMINARY CONCLUSIONS

From the data so far, the clonal avocado rootstock Merensky 2 is proving to be more productive than Duke 7 for Hass at Westfalia. Merensky appears to be a suitable alternative to Duke 7 for the Hass cv.

The fact that the Merensky rootstocks are still featuring well in California is reason to be optimistic about their future in the world avocado industry.

These rootstocks have been released for limited semi-commercial testing by SAAGA's Cultivar Evaluation Committee.

Enquiries may be made at Westfalia Nursery (Contact person: Denis Roe)

Tel: 015-309 9212

Fax: 015-309 9276

Cell: 082-492 9501

email: westfalia.nursery@pixie.co.za

REFERENCES

- BOTHA, T. 1991. Evaluasie van avokado onderstamme voorlopige verslag. *South African Avocado Growers' Association Yearbook* 12: 66-67.
- MENGE, J.A. 1998. Screening and evaluation of new rootstocks with resistance to *Phytophthora cinnamomi*. *Proceedings of the California Avocado Research Symposium*, Spring 1998. 41-43.

- ROE, D.J., CONRADIE, W. & KÖNNE, J.S. 1995. Progress with rootstock research at Merensky Technological Services. *South African Avocado Growers' Association Yearbook* 10:10-11.
- ROE, D.J., KREMER-KÖHNE, S. & KÖHNE, J. S. 1996. A progress report of avocado rootstock research at Merensky Technological Services. *South African Avocado Growers' Association Yearbook* 19:26-27.
- ROE, D.J., KREMER-KÖHNE, S. & KÖHNE, J.S., 1997. Avocado rootstock and cultivar evaluation at Merensky Technological Services: a progress report. *South African Avocado Growers' Association Yearbook* 20:36-38.
- ROE, D., MORUDU, T.M., KÖHNE, J.S. 1998. Commercial avocado rootstock evaluation at Merensky Technological Services: Further progress in 1997. *South African Avocado Growers' Association Yearbook* 21:3.

Table 1. Summarised results of Prof Menge (1998) and students from rootstock evaluations at University of California.

Site	Compared to other clonal rootstocks
7 year trial at South Coast Field Station (SCFS) (low Pc pressure).	Hass yield on Duke 7 > Merensky 2 > Thomas > Borchard > D9. Merensky 2 vigorous rootstock (other Merensky rootstocks not included in trial).
8 year trial at SCFS (low Pc pressure).	Hass yield on Jovo > Thomas > Toro Canyon > Parida
2 year trial at Camarillo (heavy Pc pressure)	Health of trees on Spencer > Vc256 > Thomas > Merensky 4 > Merensky 3
From greenhouse screening trials	In terms of Pc tolerance: G755A = Thomas > Pp4 = Merensky 3 > Merensky 2 > Merensky > Duke 7 > Velvick.

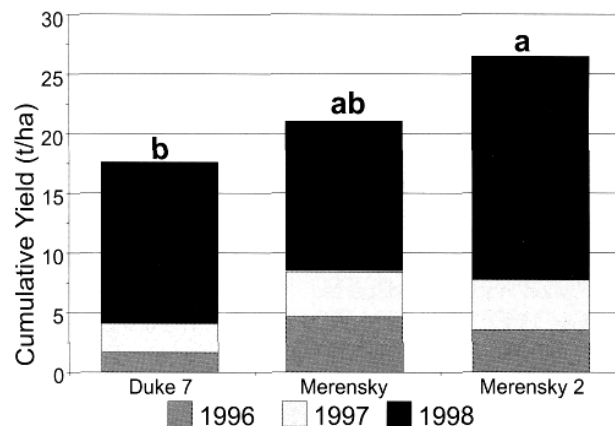


Figure 1: Hass production on new rootstocks at Westfalia Estate (planted 1994)