

FLOWERING OF AVOCADO (*PERSEA AMERICANA* MILL.) AS INFLUENCED BY GIBBERELIC ACID TREATMENTS

A-99

A.T. Bruwer¹ and P. J. Robbertse²

¹ Merensky Technological Services. PO Box 14. Duivelskloof. 0835. South Africa. E:mail: thereseb@hansmerensky.co.za

² Department of Plant Production and Soil Science. University of Pretoria. Pretoria. 0002. South Africa.

The effect of gibberellic acid (GA₃) treatments on the reproductive development of 'Hass' avocado trees was investigated at macroscopic and microscopic level. GA₃ (50 or 250 ppm) was applied to three-year-old trees as single or multiple foliar sprays. On untreated trees, bud swelling was observed in early autumn (April) and flowering occurred four to five months later in late winter/spring (August/September). However, at microscopic level, secondary inflorescence axis meristems were already present in buds of untreated trees in late summer (early March). Single GA₃ treatments applied in late summer (March) had no significant effect on flower development, but multiple GA₃ treatments applied from late summer through early winter (March-May) inhibited flower development for one season.