

FLOWERING MANAGEMENT OF PRUNING REGROWTH SHOOTS ON RAIN-FED 'FORTUNA' AVOCADOS IN SÃO PAULO STATE, BRAZIL

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L.J. Cagale, S.R. da Silva, T. Cantuarias-Avilés, S.F. Angolini, B.A. Brogio
University of São Paulo, Piracicaba, São Paulo, Brazil

INTRODUCTION

Control of vegetative growth and induction of flowering on regrowth shoots emitted after pruning, in order to anticipate fruit production on pruned branches, arise as the main technical challenges when pruning an avocado orchard. This study was aimed to evaluate tree managements to promote flowering of regrowth shoots in 'Fortuna' avocados, one of the most popular among local varieties consumed in Brazil.

MATERIALS AND METHODS

For this reason, a trial was conducted in 13-year old commercial 'Fortuna' avocado orchard at the southeastern region of São Paulo State (23°12'19"S, 49°36'24"W, 838 m altitude). planted in 2001 in a 10 m x 10 m spacing, without supplementary irrigation, on trees which had 2-3 major limbs removed in May, 2013. Five months later, three regrowth shoots of 30-40 cm length were marked on each of eight trees per treatment, and were treated with one of the following procedures: T0: control (untreated); T1: manual tipping; T2: spraying with 1,0% Cultar 250 SC® (paclobutrazol) and T3: spraying with 1,0% Sunny® (uniconazole). Shoot length, number of flower and vegetative buds and flowering intensity were assessed on regrowth shoots.

RESULTS AND DISCUSSION

- Treatment T2 induced shorter regrowth;
- Applications of paclobutrazol and uniconazole after pruning 'Fortuna' avocados grown under rain-fed conditions may allow anticipated return to cropping in orchards pruned by major limb removal.

Table 1. Percentage of vegetative buds, flowering, determined and undetermined inflorescences and flowering intensity in resprouts of avocado 'Fortuna' pruned in May 2013 in the light of the different treatments. Brazil, 2014.

Treatments ¹	Vegetative buds (%)	Flowering buds (%)	Note Flowering	Inflorescences determined/plant	Inflorescences undetermined/plant
T0	81,1	18,9	1,6	13,3	61,7
T1	86,2	13,8	1,5	0,0	25,0
T2	64,3	35,7	2,4	2,5	76,6
T3	58,1	41,9	2,7	9,2	74,1

¹T0= control (untreated); T1 = manual tipping; T2 = spraying with 1,0% Cultar 250 SC® (paclobutrazol) and T3 = spraying with 1,0% Sunny® (uniconazole).



Figure 1. Resprouts marked (A); Vegetative and flowering buds (B) of avocado 'Fortuna' pruned in May 2013 in the light of the different treatments. Brazil, 2013-2014.

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