FLOWER TISSUE PRODUCED IN 'HASS' AVOCADO TREE IN RELATON TO FRUIT LOAD AND INCIDENT PAR WITHIN THE CANOPY

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During the 2005 growing season, a study was conducted in Quillota (32ºS, 71º W) to determine the effect of different levels of fruit load on the vegetative and reproductive behavior of 'Hass' avocado trees in an orchard pruned according to incident PAR within the canopy. For this study randomly selected trees were grouped into three fruit load levels: high, medium and low.

The results confirmed the previously described inverse relationship between flowering intensity and fruit load. The nitrogen and total sugar content of the flower-bud-bearing shoots varied with the number of fruit. The trees with low fruit levels had the lowest concentrations of boron and zinc in the floral tissue, by having higher number of flowers requiring these microelements.

Regarding fruit set, it was concluded that this depends on the fruit load level. Avocado trees with high fruit load and low flowering density showed higher percentage of initial fruit set.

The percentage of incident PAR decreased independently throughout the season, requiring similar intensities of pruning to maintain light levels between 18 to 20% of incident PAR within the canopy.