EFFECT OF HIGH DENSITY AVOCADO ORCHARD AND ROOT RESTRICTION ON YIELD

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In the present work we will describe the primary results of dense orchards in which a very intensive concept for pruning and irrigation is being developed. The main stream of the concept is to control the tree volume by means of mechanical pruning and vegetative inhibition through the use of gibberellin synthesis inhibitors, producing compact trees (2,5 m high) with enough space between rows for good light not only in upper parts but also in those lower.

Another important point regarding this concept is to create narrow rows for reducing the internal volume of trees under poor light conditions and low yield. The trees are controlled for a maximum height of 2.5 meters, allowing the harvest to be performed from ground level thus avoiding additional costs as a result of high efficiency. In two different trials we have 800, 1,250 or 1,670 trees per hectare. Some of the treatments restrict root volume by using a plastic barrier in the soil. The yield of the second and third season after plantation ranges from 17 to 30 tones per hectare. The primary results indicate that root restriction improves irrigation efficiency and helps to control the growth of trees.