EFFECT OF UNICONAZOL-P (SUNNY“) ON THE GROWTH AND PRODUCTIVITY OF AVOCADO CV. HASS IN CHILE

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The application of the growth regulator Uniconazol-p (Sunny“) in commercial avocado orchards has become a common practice in countries such as Israel, Australia and South Africa, where it is used for spring applications to increase production and fruit size; it is also applied over the shoots after summer pruning, to control tree vigor and size and increase next season flowering load.

In assays carried out in 3 locations in Central Chile, the effect of Uniconazol-p was evaluated for the first time in commercial Hass avocado orchards, comparing spring applications with two doses (0,5% and 1%), and applications over the new shoots after pruning during summer in three doses (0.25%, 0.5% y 0.25%+0.5%). In both cases, the parameters evaluated included flowering, fruit set, production and control of the vegetative growth of the trees.

The results of the first season (2001-2002) indicate that the application of Sunny“ in spring increases flowering intensity, and in doses of 1% extended the flowering period.

The effect of the spring application of Sunny“ on fruit form varies depending on the location and the productivity of the orchard. In coastal regions as well as in orchards with medium productivity (15-20 ton/ha), the Sunny“ applications resulted in rounded fruits, while in the orchard with the highest productivity (30 ton/ha) no effect on fruit form was observed.

The spring applications had a different effect over the number of fruits and fruit load (kilogram) per tree depending on the location. In one of the locations no effect of the doses applied over both parameters was detected. In the other orchards, the doses of 0,5% and 1% of Sunny“ produced a smaller number of fruits per tree compared to the control, but they were bigger and fruit load per tree was not affected.

The spring application of Sunny“ at 1% increased the size of the fruit, resulting in the production of a higher percentage of fruit with large commercial diameters (about 296 g/fruit), up to 11% more than the control.

In the experiment on shoots after pruning, the application of Sunny“ at all the doses tested reduced significantly shoot length and volume of the canopy.