

## **Fruitlet abscission and spring growth retardation - their influence on avocado productivity**

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Weekly removal of young growth from branches during April and May caused a 50% increase in fruit number and a 20% increase in fruit weight per branch. Although these increases were not statistically significant they convinced us that retardation of vegetative growth may increase productivity. A year later all the young vegetative growth was removed, once a week, from 'Fuerte' trees. The results were dramatic: a ten fold increase in productivity in one orchard and a 21 fold (t.5) increase in another orchard.

For 3 years we tested a dozen plant growth regulators in a search for a chemical that would cause temporary vegetative growth retardation leading to decrease in fruitlet abscission and increase in productivity. There was no effect of soil application of B9 or CCC. However, vegetative growth was retarded by spraying branches with the following growth retardants: Ethephon (1000-10,000 ppm), B9 (1000-2000 ppm), TIBA (500 ppm), CF-125 (125-1000 ppm), BTOA (25-50 ppm), NIA 10637 (500-6000 ppm), NIA 10656 (1000 ppm), PRB (750 ppm) and PP528 (50-250 ppm). CCC (200-5000 ppm), NAA (5-25 ppm) and 245-T (5-25 ppm) were ineffective.

Nevertheless, it seems to us that there is good reason to continue this work in order to find an effective growth regulator and the right application time, in order to increase fruitfulness and realize the production potential of cv. Fuerte.