

Plant regulators on vegetative growth of 'Tommy Atkins and 'Kent' mangoes

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The mango crop within the semiarid region stands out in the national scene due to the volume, quality and possibility of all-year production with the use of plant growth regulators. Paclobutrazol applied to the soil is used for the production management of mango in most of orchards. However, it is necessary to identify other plant growth regulators that might be applied to the leaves, so as to minimize the risk of residues in the soil and plant.

The present paper has the purpose to evaluate the effect of plant growth regulators in the management of vegetative budding on mango 'Tommy Atkins' and Kent. Three plant growth regulators, sprayed to the leaves were evaluated: prohexadione-Ca, ethyl-trinexapac and chlormequat chloride, applied in two doses, and compared to paclobutrazol applied to the soil, using a randomized block design, with four replications and two plants per plot. In order to compare the effects of the treatment, data were recorded to vegetative growth (number and length of the shoots). Furthermore the levels of gibberellins in the apical area of the shoots of Tommy Atkins cultivar were quantified, from the experiments set up until the beginning of floral induction.

The results showed that sprayings with prohexadione-Ca, trinexapac-ethyl and chlormequat chloride in a dosage of 1.5 g a.i. plant⁻¹ plant was as efficient as the paclobutrazol in a dosage of 4.0 g a.i. plant⁻¹, applied to the soil, regarding the regulation of vegetative growth of the Tommy Atkins cultivar.