

Mango Flower Induction in the Brazilian Northeast Semi-Arid with Synthesis Inhibitors of Gibberellin

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Mangoes in the Brazilian semi-arid stands out in the national scenario due to expansion of the planted area, production quantity, high yields and fruit quality, and also to the possibility of all-year production making use of the climatic conditions and technologies for management of plant growth and blossom through irrigation, pruning and plant growth regulators. Paclobutrazol applied to the soil is used for production management of mangoes in most of the orchards. This paper had the purpose of evaluating the effect of plant growth regulators applied to mango leaves, cv. Kent, regarding their efficiency for blossom management, allowing off season mango production with higher precision in dosage recommendation and lesser contamination risk for the plant and the soil. The experiments were carried out in an area of the São Francisco river Valley, from January to November 2007. Three plant growth regulators (prohexadione-Ca, trinexapac-ethyl and chlormequat chloride) sprayed to the leaves, were evaluated in two dosages and compared to paclobutrazol applied to the soil. In order to compare the effects of the treatment, data were recorded related to vegetative growth (percentage and shoot length), panicle emission (percentage and length), period of time until blossom and production, yield (number and plant weight) and post-harvest quality of the fruit (total soluble solids, titratable acidity, pH, consistency, flesh and skin color and appearance). The results showed that prohexadione-Ca and chlormequat chloride enabled a 15-day anticipation of the harvest for Kent cultivar, while the paclobutrazol, separate or combined with prohexadione-Ca, anticipated the harvest in 25 days, when compared to the control and to the treatment with trinexapac-ethyl. Plant growth regulators sprayed to the leaves and paclobutrazol applied to the soil seem to have effect in delaying ripening in post-harvest mangoes.