Abstract

In Nayarit, one of the most important problems in 'Ataulfo' mango is the presence of parthenocarpic fruits, which are smaller than normal ones. The objective was to know the effect of growth regulators on set and size of parthenocarpic fruit in 'Ataulfo' mango. This study was done during 2007 and 2008 in two commercials orchards with high incidence of parthenocarpic fruit (80 %). In both years, the following treatments were evaluated: gibberellic acid (GA3) 50 mg·liter-1; Agromil Plus® 2 ml·liter-1; Agromil Plus® 2 ml·liter-1 + GA3 50 mg·liter-1; GA3 50 mg·liter-1 + Thidiazuron (TDZ) 5 mg·liter-1 and a control. In 2008, GA3 (100 mg·liter-1) treatment was added, and the experiment was done in two locations. A completely randomized design with 10 replications was used in 2007 and a completely randomized design with factorial arrangement in 2008. In the Orchard 1, growth regulators increased fruit set (fivefold than the control trees); also, the fruit length was increased up to 59 % while the fruit weight was increased with all growth regulators twofold than the control trees. In the Orchard 2, the fruit length was increased up to 51 % while fruit weight was twofold than the control trees. In the Orchard 2, the fruit set and the fruit size were greater than the orchard 1.

Keywords
Mangifera indica L., seedless fruit, cytokinins, gibberellins, thidiazuron.