

Damage Caused by Avocado Branch Weevil (*Copturus aguacate* Kiss.) in 'Fuerte' Avocado Trees in Atlixco, Puebla, Mexico

Samuel Salazar-García

Campo Experimental Santiago Ixcuintla, INIFAP, Apdo. Post. 139, Tepic, Nay. 63000, Mexico

J. Manuel Bolio-García

Escuela de Fitotecnia UPAEP, 21 Sur 1103, Puebla, Pue. Mexico

Abstract. During the 1960's, the Atlixco region in the state of Puebla was the principal avocado-producing zone in the Mexican Republic. At this time the principal cultivar is 'Fuerte', native to this region, and the cultivar that initiated the world avocado industry. In the last decade the land cultivated for avocados has been reduced due to the foliar damage caused by the avocado branch weevil and by root damage caused by *Phytophthora cinnamomi*. At the present time, the avocado branch weevil is a serious problem in the south central states of the Mexican Republic.

C. aguacate is a zygopine that belongs to the family Curculionidae and the order Coleoptera. Its life cycle may have some variation, and it comprises about 200 days (egg, 12 d; larva, 120 d; pupa, 15 d; adult, 53 d with an 8d pre-ovipositional period). Larvae of the avocado branch weevil use wood as a food source and build galleries in the branches and trunks of trees, killing the affected parts, reducing the harvest, and frequently completely destroying the tree. The objective of this work was to quantify the distribution and intensity of the damage caused by the avocado branch weevil in the Atlixco region. Twelve commercial 'Fuerte' orchards were selected at random, with 3 in each of the cardinal points of the avocado-producing region. The presence of exudate was quantified in 10% of the trees in each orchard. The avocado branch weevil was found to be causing damage in more than 98% of the trees with an average of 132 exudations per tree. The damage was concentrated in the upper half of the treetop. The external part of the treetop showed 70% of the total damage and 85 % of the damage was located in the ends of the branches. The inadequate management of the orchards increased the severity of the damage. If the problems caused by the avocado branch weevil are not solved, the Atlixco region will no longer be a viable area for commercial avocado production.