

¹EFFECT OF CLIMATE AND WATER MANAGEMENT ON AVOCADO YIELD AND COMPONENTS IN MICHOACAN

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Michoacan is the most important avocado-producing region worldwide; however, the wide climate diversity of the whole area and water shortage over 50% of the planted area (90,000 ha) have made it susceptible to be damaged by abiotic and biotic factors affecting fruit quality. The aim of this work was to evaluate the effect of climate and water management on yield and components of fruit in Michoacan plantings. This work was carried out in six avocado orchards located in the four main climate areas of the avocado growing and two water management systems, irrigation and rainfed conditions. Evaluated climates were (A)C(w2) (Patamburu and Tecario) with 57%, (A)C (m)(w) (Cherangueran and La Basilia) with 11% and C(w2)(w) (Periban and Araparícuaro) with 26% of the planted area, respectively; moreover, the effect of water management was also studied, with irrigation in 48% of the area and no irrigation in 52%. A bifactorial experimental design was used, where factor A was climate and factor B water management. Data registered were fresh and dry fruit weights and their components, flesh, skin, seed coat and seed, as well as dry matter content. Results indicate the effects of climate are observed in places with sub-humid temperate climate, such as Periban and Araparícuaro (C(w2)(w)), where fresh fruit was ranked above 200 g, fresh-pulp weight 165 g and dry matter 25%, while in other places such as Cherangueran and La Basilia (A)C(m)(w), the lowest values of fresh weight (<195 g), fresh-pulp weight (143 g) and dry matter (21%) were recorded.

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