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POSSIBLE RELATIONSHIP BETWEEN SILICON AND YIELD OF AVOCADO VAR. HASS (*PERSEA AMERICANA* MILL.)

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In commercial avocado “Hass” (*Persea americana* Mill.) orchards, located at the state of Michoacán, México, we determined the content of silicon (Si) in leaf tissue, stem and fruit by X ray spectrophotometry. The mean value of Si content found was 289 mmol/kg dry matter, while the contents of Calcium (Ca), Magnesium (Mg) and Potasium (K) were 687, 266 and 387 mmol/kg dry matter, respectively.

The Si content in healthy trees with good yield was 1 mol/kg dry matter. The Ca content was similar, but the Mg content reached only 50%. Based on these results, we designed a fertilization experiment to evaluate the effects of Si in the development and fruit yield of avocado trees.

We applied different concentrations of a mineral containing 50% Ca, 18% Mg and 15% Si, as pure elements, to a population of 200 trees,. Eight and 16 months after the treatments, tissues were reevaluated, by quantifying the mineral content in different tissue sections of the trees. The effects on fruit yield and fruit quality are discussed.