NON-DESTRUCTIVE METHODS AND OPTIMUM HARVESTING TIME OF 'SEMIL 34' AVOCADO (*Persea americana* Mill.) IN THE DOMINICAN REPUBLIC

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Dominican avocado exports face serious problems by quality heterogeneity due to inadequate pre and post harvest management. A research was conducted to explore a non-destructive method to determine the optimum harvesting time. Independent experiments were conducted in two of the main producing areas. Fruits were harvested for eight weeks in a commercial farm in each area. Chlorophyll fluorescence was used as a fast non-destructive method to determine fruit maturity rate. It has been also used as a marker of photosynthesis reaction to verify the physiological condition in other crops. The oil and dry matter contents were evaluated as quality variables. This method has been previously used as an indicator of *in vivo* photosynthetic reaction and environmental stress on various crop plants. Oil and dry matter content of fruits were evaluated as quality indicators. Phenological and ripening quality analyses as well as of organoleptic fruit attributes were also used as quality indicators. There is no significant correlation ($r=0.02$, $p= 0.92$) between chlorophyll fluorescence and oil content to establish an optimum harvesting time. Under the conditions of this study, based on fruit oil and dry matter contents, optimum harvesting times were determined in 24 weeks after inflorescence appearance for one region and 26 weeks for the other region. Organoleptic fruit quality was good for both areas.