USE OF AMBIENT TEMPERATURE TO PREDICT FLORAL APPEARANCE OF 'HASS' AVOCADO

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The objective of this research was to develop prediction models based on ambient temperature to prognosticate critical stages of floral phenology (from the end of vegetative shoot elongation to anthesis) of 'Hass' avocado under rainfed conditions (annual rain = 1.185 to 1.300 mm) and temperate subhumid climate (annual average = 21 °C to 21.7 °C) of the state of Nayarit, Mexico. Two important vegetative flushes were observed: one from winter (January-February) and another from summer (July). For both shoot types, floral development of 'Hass' avocado was related to daily ambient temperature and mathematically modeled. Floral development on shoots of the winter flush was correlated to chilling days accumulated (CDA) at temperatures ≤21 °C, as well as the accumulated intervals between daily maximum and minimum temperatures (ACINT). In the case of summer flush shoots, they were associated to CDA with temperatures ≤19 °C, ≤20 °C and the ACINT. For winter shoots, the most precise floral development prediction model was the $winter_{CDA\ \leq 21}$ (R^2 = 0.99). In the case of summer flush shoots, the best model was the $summer_{ACINT}$ (R^2 = 0.99).