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IMPORTANCE OF THE WINTER VEGETATIVE FLUSH TO FLOWERING OF THE 'HASS' AVOCADO IN NAYARIT, MEXICO

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A four-year study (1997-2001) was undertaken in three commercial 'Hass' avocado orchards under rainfed conditions in Nayarit, México, with the following objectives: *i*) to determine the frequency and intensity of vegetative flushes; *ii)* to quantify the contribution of each vegetative flush to the production of inflorescences; and *iii*) to determine the effect of tree fruit load on the number and intensity of vegetative flushes and on the relative number of vegetative and reproductive shoots at bloom. In each orchard data trees were selected based on their current fruit load. Four branches per tree were tagged and the number and intensity of vegetative flushes that developed during each year, as well as the type of growth produced by apical buds of shoots of different ages, were recorded at the end of the 1998-99 and 2000-01 winter flowering periods. Four vegetative flushes were recorded each year. The winter flush that emerged in Feb. 1998 made the greatest contribution to the 1998-99 winter bloom, 76.5% of the shoots produced inflorescences. Contributions of the summer-1 (late Jul. 1998) and summer-2 (early Aug. 1998) flushes to flowering were intermediate, with 30.6% and 36.4% of shoots, respectively, producing inflorescences. The lowest contribution to flowering was made by the summer-3 flush (late Aug. 1998) since only 19% of its shoots produced inflorescences. All four vegetative flushes produced a similar number of vegetative shoots. Evaluation of the 2000-01 winter bloom for trees with high and low yields revealed that tree fruit load had no effect on the number of vegetative or reproductive shoots produced by the winter or summer vegetative flushes.