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PLANT GROWTH REGULATORS FOR AVOCADO PRODUCTION

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Plant growth regulators (PGRs) are the most powerful tools available for manipulating tree growth and yield in an established orchard. Understanding the phenology and physiology of the avocado (*Persea americana* Mill.) is critical for selecting the correct PGR and for properly timing the application annually to consistently elicit the desired response. Results from several multi-year PGR experiments have provided evidence of promising PGR strategies for increasing 'Hass' avocado yield and fruit size. Gibberellic acid 3 (GA₃) (25 mg/L) applied at the cauliflower stage of inflorescence development or applied at the end of June-beginning of July significantly increased total yield and yield of large size fruit (packing carton sizes 60-40) as 2-year average and 2-year cumulative yield (P = 0.03). 6-BA (25 mg/L) applied at anthesis or GA₃ (25 mg/L) applied in mid-July followed by prohexadione-Ca (125 mg/L) 30 days later significantly increased the yield of large size fruit (packing carton sizes 40-32) as 3-year average and 3-year cumulative yield (P<0.03). These strategies will be tested in additional orchards.