

**EFFECT OF A FERTILIZATION PROGRAM BASED ON N-P-K-Ca-Mg-B-Zn FOR AVOCADO
(*Persea americana* Mill) CV. HASS ON TREE GROWTH, PRODUCTIVITY AND POST-
HARVEST FRUIT QUALITY**

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This trial was carried out in the area of Llay-Llay in Chile, on Hass trees planted in December 1997 on hill slopes. During four growing seasons (2001-2002 to 2004-2005) a fertilization program based on N, P, K, Ca, Mg, B and Zn applied as liquid fertilizers was compared with a traditional fertilization program that includes N, B and Zn; analyzing the effect on tree growth, productivity, fruit size and post-harvest fruit quality. The fertilization schedule was similar in both programs and consisted of 3 periods: *i*) spring, with full blossom (between late October and early November), *ii*) summer, with fruit growth at high level (January), and *iii*) autumn, during induction and differentiation (late April to early May).

The results show that, even though the nutrient availability in the soil is higher in the case of the new fertilization programme, there are no clear differences at foliar level. The new fertilization programme produced a higher growth in trunk width but there was no clear effect on shoot growth, and there was a variation between seasons. This is directly related to the productivity of each season.

In the case of productivity and fruit size, the results were different depending of each season. No differences were shown in fruit condition (pulp pressure, color, vascular browning, cold damage and decay) after 25, 30, 35, 40, 45 and 50 days of cold storage.