

## MACRO AND MICRONUTRIENT DEMAND IN PEACH TREES

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Mineral elements are generally supplied in routine treatments, often ignoring the real nutritional status of trees. Thereby, application of fertilisers on a regular basis can lead to an excess of available nutrients in relation to the real nutrient demand of crops. Such surplus can be either immobilised in the soil or leached, and can contaminate superficial and subterranean waters. To avoid an excessive use of fertilisers it is important to know both the actual nutrient status and the real nutrient demand of the tree for macro and micro-elements. The aim of this work is to attempt to estimate the nutrient budgets in peach trees. The real nutrient demand was estimated by measuring losses due to output of nutrients at different events, including wood pruning, flower loss, fruit thinning, fruit harvest and leaf fall. An estimation of the amounts of nutrients immobilized in wood and roots was also carried out. Samples from two different peach orchards (*Prunus persica* L. Batsch) grown on calcareous soils in the Northeast of Spain were used for this estimation.

The first orchard corresponded to 15 -year-old trees cv “Babygold-5” and “Catherina” grafted on GF 677, planted with a 2,5x2 m frame, approximately 3,5-3,25 m high, with a trunk diameter of 11-13,3 cm and a flood irrigation. The second orchard was flood irrigated and had 7-year-old trees of cv. “Calanda” grafted on a peach-almond hybrid, with a 4x6 m frame and approximately 3,8 m high and with a trunk diameter of 14,5 cm. A third estimation was made on two-year-old trees growing on a peat-sand substrate.

**Keywords:** mineral nutrition, nutrient budget, peach

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