

P63- Influence of rootstocks on nutritional composition of pear fruits

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Pear is a fruit of great importance for human nutrition due to the organoleptic characteristics and nutritional composition. Its cultivation in Uruguay generally uses rootstocks for adaptation to the soil, productiveness and precociousness, but rootstock selection may also influence fruit quality, with the ability to change its chemical composition. The objective of this work was to evaluate the influence of rootstocks on some physicochemical and nutritional compounds of pear cv. Williams, grafted on six rootstocks (EMC, BA29, OHxF333, OHxF40, OHxF69 and Adams) in Uruguayan production conditions. The experimental design was a randomized complete block design with four replicates located in an orchard at INIA-Las Brujas Experimental Station. At harvest, twenty fruits were sampled per replicate, conditioned in a cold chamber and then at room temperature until consumer maturation. Soluble solids content, acidity, color and texture were evaluated and then fruit peel and pulp were separated for determination of ascorbic acid and mineral contents. As a result, in relation to the soluble solids, titratable acidity, color and texture, no differences were found between the rootstocks. For ascorbic acid content, no significant differences between rootstocks were found, but the concentration was higher in the fruit peel than pulp. The highest phosphorus content was found in the pulp, but calcium and magnesium contents were higher in the peel. The OHxF 40 and OHxF 69 rootstocks provided higher phosphorus and zinc contents and the boron content was higher in fruits of plants grafted on OHxF 40 rootstock. As a conclusion, rootstocks are influencing the nutritional content of Williams pear fruits under Uruguayan cultivation conditions, and it is possible to select a more convenient rootstock in terms of production and to contribute with a greater amount of nutrients in fruits.

Keywords: Fruit quality, Human nutrition, *Pyrus communis* L., mineral content