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Seasonal Concentration of Macro and Micronutrients in Different Vegetative Organs of Valencia Oranges Tree Affected By HLB

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Plants infected with HLB have obstructions that affect the phloem transport of carbohydrates for developing organs such as fruit and other organs as the cambial region and roots. Some nutrients may be affected and it is usual the observation of foliar symptoms characteristic for the deficiency of minerals such as Mg and Zn. As the root system can also be harmed it is possible that the deficiency symptoms are also caused by decreased absorption and not only by lack of redistribution through phloem. The objective of this study was to investigate throughout the year concentrations of different nutrients in young leaves, mature leaves, young branches and the cambial region of Valencia Orange trees (*C.sinensis*), 12 years old, grafted on Rangpur lime (*Citrus limonia*) . 1) symptomatic branches of flowers (PCR+), 2) asymptomatic branches of flowers (PCR+) and 3) flowers of healthy plants (PCR -). Healthy plants showed higher levels of nitrogen, calcium, magnesium, zinc and copper. There were variations in function of the analyzed organs over time. The results are discussed according to the mobility of nutrients in plants.