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Prof/Dr/Mr/Ms. M Angelo Rodrigues

Polytechnic Institute of Bragança, Portugal

for his Poster Presentation on

“Studies on soils fertility and tree nutritional status in chestnut groves”

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Studies on soils fertility and tree nutritional status in chestnut groves

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Chestnut tree is the major crop of the northern highlands of Portugal. Despite the stressful situation caused by some phytosanitary problems, good nut prices have led farmers to invest in chestnut groves. Current fertilization strategies consist in liming and NPK fertilizers rich in phosphorus, based on the fact that soils are usually acidic and poor in phosphorus. This work reports results of a study in which leaf and soil samples were collected in 80 chestnut orchards. The study showed a predominance of acid and very acid soils (73%), low levels of phosphorus (68%) and high levels of potassium (87%). The content of organic matter was low to medium (80%). However, the data obtained from leaf analysis does not seem to be in agreement with the data obtained from soil analysis. Leaf nitrogen concentration is below the lower limit of the sufficiency in 47% of the samples. To soils with very low phosphorus levels do not seem correspond trees with so big nutritional problem, since only 15% of the orchards revealed leaf phosphorus concentration below the adequate range. Although soils show high potassium levels, plant nutritional status does not seem to be so good, since 31% of the samples showed leaf potassium levels below the adequate range. The high acidity seems to be affecting leaf calcium levels, as 52% of the samples showed low leaf calcium concentration. Thus, much still seems to have to be done in the region to adjust the fertilization strategy to the actual needs of the plants.

Biography

M Angelo Rodrigues has obtained his PhD degree in Edaphic and Environmental Sciences at the University of Tras-os-Montes and Alto Douro, Portugal in 2000. He has coordinated and/or participated in two dozen National and International research projects. He has published 130 scientific papers (31 in ISI/JCR journals), book chapters and technical reports. He has been Deputy Director of the School of Agriculture of IPB and President of the scientific committee of the Master's program of Agroecology at the same institution. He was Vice-Coordinator of the Mountain Research Centre and Vice-Delegate of the Order of Engineers of the district of Bragança, Portugal.

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