ASSESSMENT OF FERTILE SOIL AND USE OF DIAGNOSIS AND RECOMMENDATION INTEGRATED (DRIS) ON SOIL CROP *Citrus nobilis* LOUREIRO IN VINH LONG PROVINCE

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Summary

Objectives of this study were to (1) Build a diagnosis and recommendation integrated system (DRIS) for *Citrus nobilis* Loureiro in the area of Vinh Long province, (2) Determine soil fertility index through DRIS (Integrated Diagnosis and Recommendation System) based on *Citrus nobilis* Loureiro productivity in the area of Vinh Long province. The study was conducted on *Citrus nobilis* Loureiro aged 3-5 years. *Citrus nobilis* Loureiro leaf samples were collected for nutrient analysis (3rd and 4th leaf positions, on level 4 branches of trees) and this leaf sampling position corresponds to the soil survey and chemical physical analysis of soil. The yield of *Citrus nobilis* Loureiro grown on alluvial soil in Vinh Long province is divided into two yield groups according to quartiles: low yield and high yield with average values in order of 18.3 and 33.0 kg/tree/year. The diagnosis and recommendation integrated system is set up to diagnose the nutritional status of *Citrus nobilis* Loureiro in Vinh Long. The different nutrients in decreasing order affecting fruit yield are N <Mn <P <Zn <Cu <K <Mg <Ca. The elements N, Mn, P, Zn and Cu are assessed to be deficient while K, Ca and Mg are assessed to be redundant. Percentage of gardens was diagnosed at the level of N, Mn, P, Zn, Cu and K deficiency in the order of 57.5%, 55.0%, 52.5%, 35.0%, 30.0% and 15.0%.

Key word: *Citrus nobilis Loureiro, diagnosis and recommendation integrated system (DRIS), mineral nutrition, soil fertility indexing.*