

Impact of Foliar Application of Zinc on Micro and Macro Elements Distribution in *Phyllanthus amarus*

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Abstract : The present study was carried out to investigate the interaction of foliar applied zinc with other elements in *Phyllanthus amarus* plants. The plant samples for our experiment were collected from Lam Dong province, Vietnam. Seven suspension solutions of nanosized zinc hydroxide nitrate ($Zn_5(OH)_8(NO_3)_2 \cdot 2H_2O$) with different Zn concentration were used. Fertilization and irrigation were the same for all variants. The Zn content and the content of selected micro (Cu, Fe, Mn) and macro (Ca, Mg, P and K) nutrients in plant roots, and stems and leaves were determined. It was concluded that the zinc content of plant roots varies narrowly, with no significant impact of ZnHN fertilization. The same trend can be seen in the content of Cu, Mn, and macronutrients. The zinc content of plant stems and leaves varies within wide limits, with the significant impact of ZnHN fertilization. The trends in the content of Cu, Mn, and macronutrients are kept the same as in the root, whereas the iron trends to increase its content at increasing the zinc content.

Keywords : *Phyllanthus amarus*, Zinc, Micro and macro elements, foliar fertilizer

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