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ZN CHELATE APPLICATION ON ZN DEFICIENT SOIL CULTIVATED WITH MAIZE UNDER GREENHOUSE

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The zinc is a micronutrient that helps in the production of the maize in Brazil, but is a very common deficiency found in all the regions of the country. With the objective of evaluating the effect of the zinc rates in micronutrients concentration in soil, in plants and maize shoot dry matter production, an experiment was done in pots containing Haplustox (Latossolo Vermelho). It was used as a complete randomized design, with three replications of treatments; in a factorial arrangement 6x3 (six rates of zinc and three sources). It was used at following rates of zinc: 0; 0.5; 1; 2; 4 and 6 mgkg⁻¹, and sources: Zn-EDTA, Zn-lignosulfonate (Zn-LS) and zinc sulfate. It was observed zinc application increases the initial growth of maize crops, with the 90% of maximum production in 0.9 mgkg⁻¹ zinc concentrations in soil and 16 mgkg⁻¹ in plants. The source of Zn-lignosulfonate proportioned the highest Zn concentration in soil and plant; therefore it isn't observed difference among the sources in nutrients absorption and dry matter production. The increased zinc rates increased concentration in plants, in soil and Zn accumulated. It was observed a few answers in dry matter production with rates application above 2 mgkg⁻¹.

Biography

Roberto Savério Souza Costa has completed his graduation from University State of São Paulo in Brazil (Unesp – campus Ilha Solteira) and Master's studies from University State of São Paulo (Unesp – campus Jaboticabal). He is an Agronomist Engineer in Coordenadoria de Assistência Técnica Integral (CATI) and he works with family farmers in projects of São Paulo State Government. He has experience as an extensionist in the area of Plant Science, with emphasis on Management and Cultural Treatments, Plant Nutrition and Fertilization and also in the area of Topography and Rural Engineering. He is also a University Professor at Centro Universitário Unifafibe, in Bebedouro city, in the Agronomic Engineering course. He has published more than 8 papers in scientific journals and has 29 presentations of the work.

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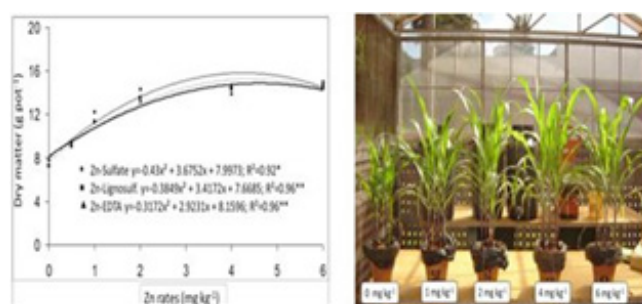


Figure 1 and 2: Effect of the zinc rates in dry matter production.