Effects of macro and micro fertilizer application on the yield and quality of kiwifruit (Actinidia deliciosa)

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Abstract To inrestigate the effect of micronutrients on qualitative and quantative properties of kiwifruit, a study was conducted bass on randomized compeletly design (RCD) including soil fertilization by FeSO4 (0 and 80g per tree), MnSO4 (0 and 40gr per tree), foliar spray by Zn chelate (0 and 5mg/l) and foliar spray of Fe chelate (0 and 5 mg/l) in six different stages during the growth of plant with three replications. At this study, the yield of tree, fruit stiffness, sugar, pH, fresh weight, dry matter of fruit, the concentration of macro nutrients (N, P, K) and micronutrients (Fe, Zn and Mn) in fruit were measured. Results showed stiffness, sugar, pH and Fe, Zn and Mn in 1% level and yield, dry matter and fresh weight of fruit and the concentration of N, P and K in 5% level were significant. The greatest effect of treatment on yield, stiffness, pH and dry matter (soil fertilization by urea, K2SO4, super phosphate, FeSO4 and foliar spray of Zn chelate, K2SO4 and Ca), so that the yield had 7.9 kg difference than in the control. Zn chelat foliar spray were caused to increase Zn in fruit. There is an increase in Mn of fruit by Mn fertilization, but this was not observed at Fe.

Keywords : Keywords: Kiwifruit, Micronutrients,Yield per tree, Foliar spray, Macronutrients.