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Studies on the effect of Trace Elements (Sn, Cu, Mn) on the Yield of Maize

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ABSTRACT

Effect of Zn, Cu, Fe and Mn alone as well as in various combinations on the yield of Sarhad White cultivar of maize was studied at the Research Farm, N.W.F.P. Agricultural University, Peshawar. Zn, Cu, Fe and Mn at the rate of 5.0, 5.0, 2.5 Kg/ha, respectively, individually as well as in various combinations were applied at the time of sowing. A basal dose of 120 Kg No, 90 Kg P_2O_5 and 60 Kg K_2O/ha, was also administered. The crop responded to all the trace elements studied, but the biggest response was to the combined application of Zn and Cu. Some antagonistic effects were also observed between some of these elements. Critical levels of trace elements in leaves at tasseling stage were found to be 36 ppm Zn, 6 ppm Cu, 24 ppm Fe and 31 ppm Mn. The soil contents were 2 ppm Zn, 3.8 ppm Cu, 22 ppm Fe and 30 ppm Mn.