EFFECT OF AMMONIUM NITROGEN ON POTASSIUM RESERVES IN AN ALFISOL AT DIFFERENT K LEVELS UNDER SUBMERGED CONDITION

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A field experiment was established at Mahailluppallama evaluate the effect of Ammonium Nitrogen on K reserves in alfisol under submergence. Experimental design was RCBD wi three replicates. Different levels of NH_4^+-N and K supplied we 0, 45, 90, 130, and 180 Kg/ha, and 0, 45 and 90 Kg/ respectively. Soil samples were drawn from each plot transplanting (TPL), one month and two months after transplanti and at the harvest, considering 0-20, 20-40 and 40-60 cm depth K reserves were determined by HF/HCl digestion.

All treatments showed considerable changes in K reserves wi time. Statistical analysis revealed, that there were significant differences of K reserves related to different levels and different sampling stages. However, when the aspec of various NH_4^+-N levels, related to mean K reserves we considered, in the 0-20 and 20-40 cm depths significa differences were observed. Differences were more promine between the lower and higher levels. The changes in K reserv thus illustrated, that there was an influence of the NH_4^+ levels. At higher nitrogen levels (130 and 180 Kg/ha) high amounts of K reserves were observed in 0-20 and 20-40 cm depth Which could be a result of the blocking effect.

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