FATE OF AMMONIUM SULPHATE FERTILIZER ADDED TO AN ULTISOL

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An Ultisol from Gampola was packed in PVC leaching columns of height of 90 cm. The soil was initially wetted and then treated with $(NH_4)_2SO$ to supply zero N, 266.7 mg N/column (120 kg N/ha) and 533.4 mg N/column (240 Kg N/ha). The columns were leached with 150 ml distilled water every second day for 45 days. The leachates were analysed for NH_4^+ and NO_3^-.

NH_4^+-N loss in leachates from all columns was similar and concentration of NH_4^+ declined rapidly to a low constant level. However NO_3^--N in leachates increased as rate of $(NH_4)_2SO_4$ was increased due to NH_4^+ oxidation to NO_3^- the concentration of which increased up to the 12th day after which it decreased in all leachates.

Total mineral N leached from columns treated with low and high level of $(NH_4)_2SO_4$ were 29.20 and 35.00 mg respectively in 45 days. 21.45 mg of mineral N was leached from columns treated with zero N. Therefore residual and mineralizable N was observed to be an important source of N leaching in

this soil. The amount of N leached was less than 3% in fertilized treatments allowing for N in the control treatment. Thus there was very little leaching loss of applied $(NH_4)_2SO_4$ from this soil in 45 days.