

AMMONIA LOSSES FROM SALT-AFFECTED SOILS

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ABSTRACT

A soil incubation experiment was conducted to assess the extent of ammonia losses from salt-affected soils. Four salt-affected and two normal soils were treated with ammonium sulphate and urea solution @ 0 and 200 mg N/kg soil and incubated at 30°C, and 80% field capacity moisture level for different time intervals. The evolved ammonia was trapped in acid which was determined by steam distillation at the end of each incubation period. The results revealed that the mean cumulative ammonia losses from the fertilizers applied to salt-affected soils were about 15 times more as compared to those when applied to normal soils. Maximum ammonia losses occurred from sodic soil with highest pH and sand content. Irrespective of the salinity level, ammonia losses were more from urea than from ammonium sulphate.