



## Supplementary Materials

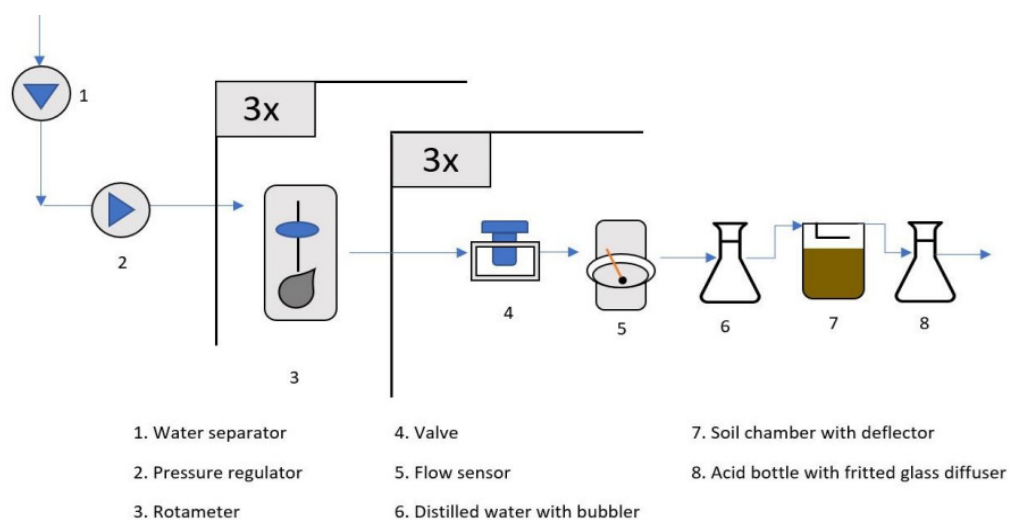


Figure S1 Set-up flow chambers for  $\text{NH}_3$  loss quantification

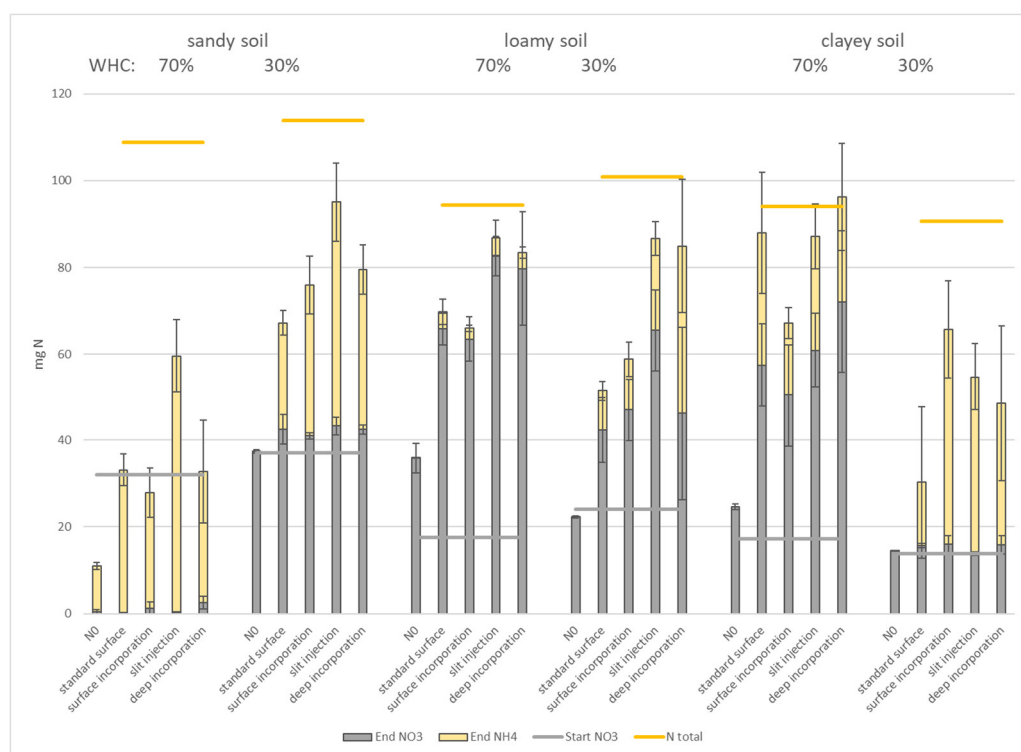


Figure S2 Mineral N content in three different soils (sandy, loamy, clayey) and two different moisture levels (70 and 30 % WHC) of  $\text{NH}_3$  experiment after incubation for two weeks with start  $\text{NO}_3$  (grey line) and total N from fertilizer and start  $\text{NO}_3$  (yellow line)

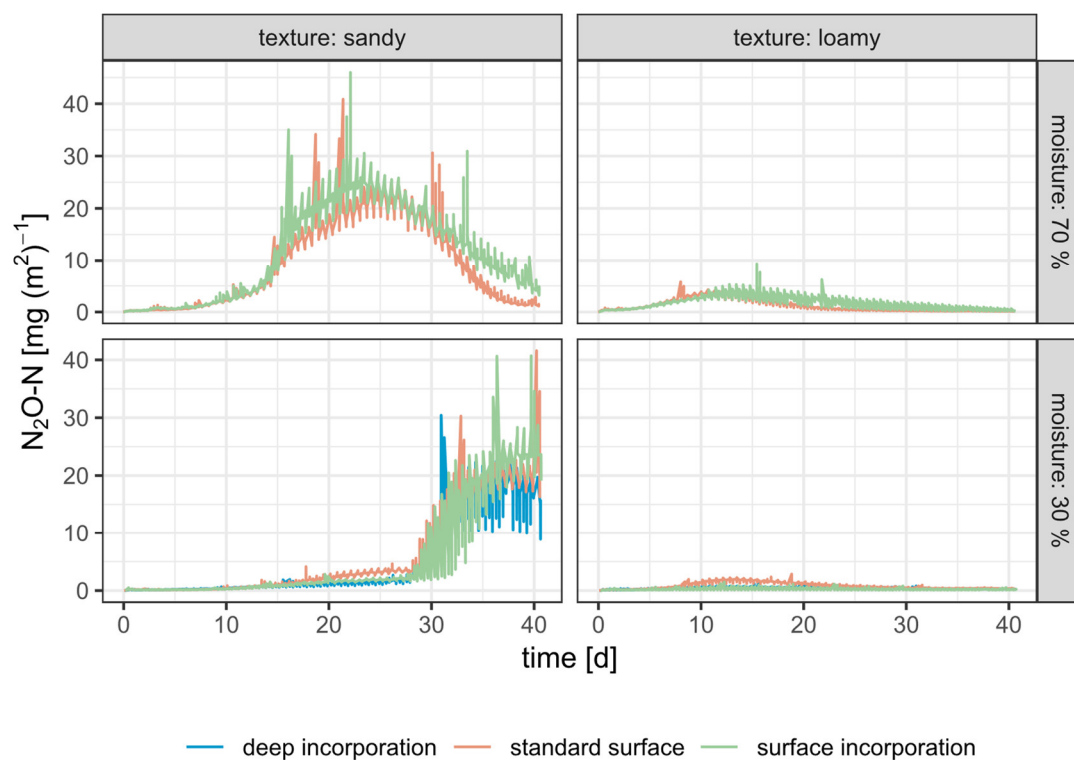


Figure S3 Fluxes of  $N_2O-N$  from urea applied with different application techniques, standard surface, surface incorporation and deep incorporation, on sandy and loamy soil in two moisture levels 70 % and 30 % WHC