

Supplementary Material

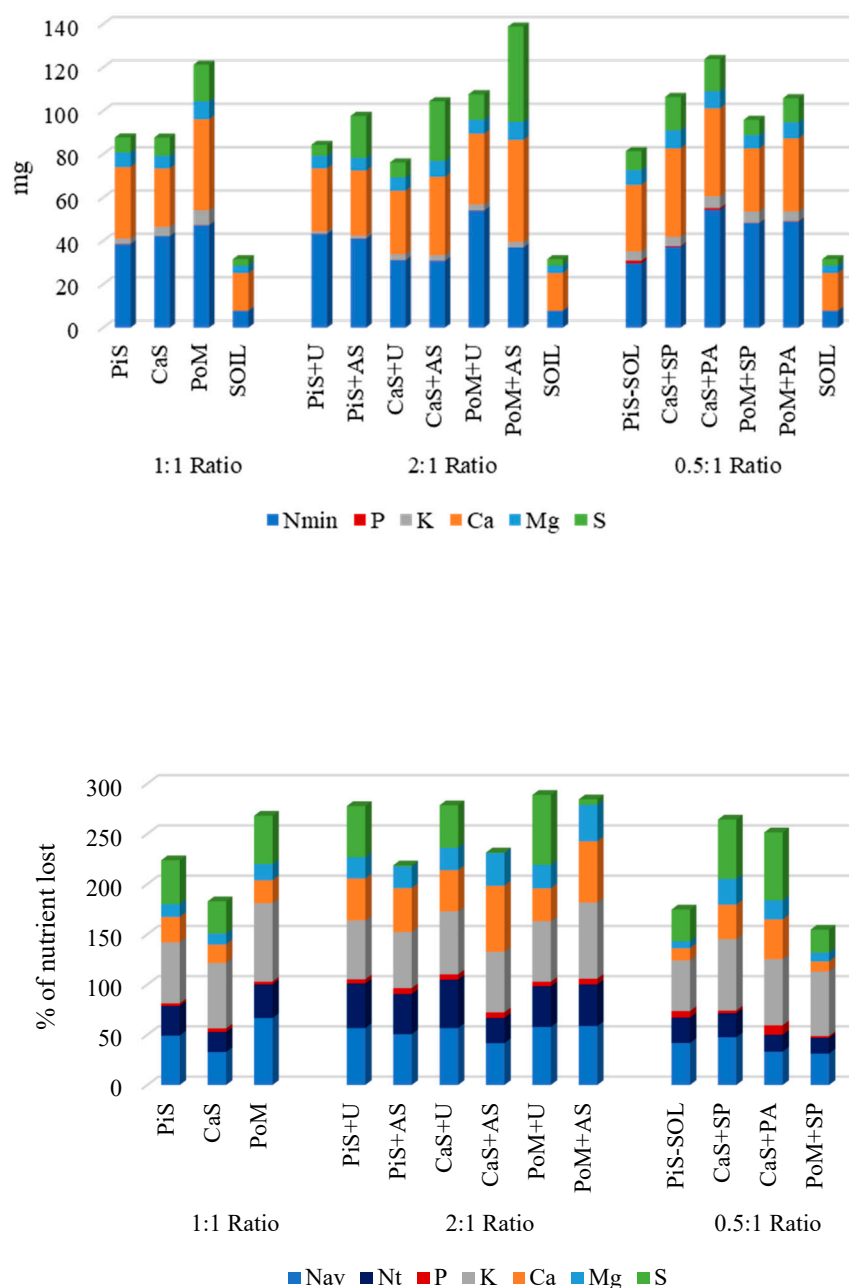


Figure S1: The cumulative nutrients leached (top) and the percentage of nutrient lost relative to the total applied (bottom) for each 1:1, 2:1 and 0.5:1 ratio during the leaching events. PiS+U: pig slurry with urea, PiS+AS: pig slurry with ammonium sulphate, CaS+U cattle slurry with urea, CaS+AS: cattle slurry with ammonium sulphate, PoM+U: poultry manure with urea, PoM+AS: poultry manure with ammonium sulphate, PiS-SOL: solid fraction from pig manure; CaS+SP: cattle slurry with superphosphate, CaS+PA: cattle slurry with phosphoric acid, PoM+SP: poultry manure with superphosphate and PoM+PA: poultry manure with phosphoric acid.

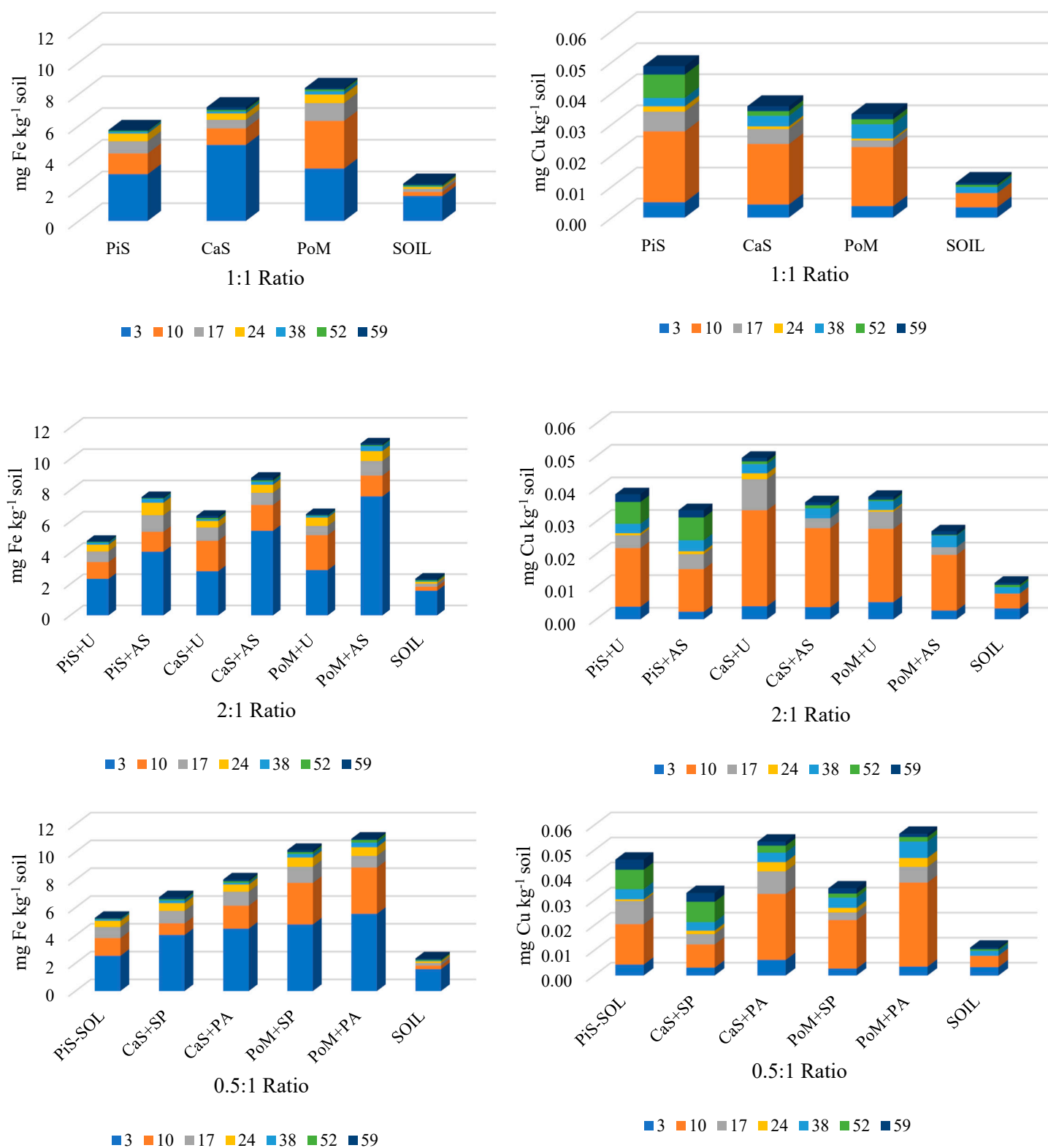


Figure S2: The iron (left) and the copper (right) concentrations on the leachate for each 1:1, 2:1 and 0.5:1 ratio during the leaching events. PiS+U: pig slurry with urea, PiS+AS: pig slurry with ammonium sulphate, CaS+U cattle slurry with urea, CaS+AS: cattle slurry with ammonium sulphate, PoM+U: poultry manure with urea, PoM+AS: poultry manure with ammonium sulphate, PiS-SOL: solid fraction from pig manure; CaS+SP: cattle slurry with superphosphate, CaS+PA: cattle slurry with phosphoric acid, PoM+SP: poultry manure with superphosphate and PoM+PA: poultry manure with phosphoric acid.

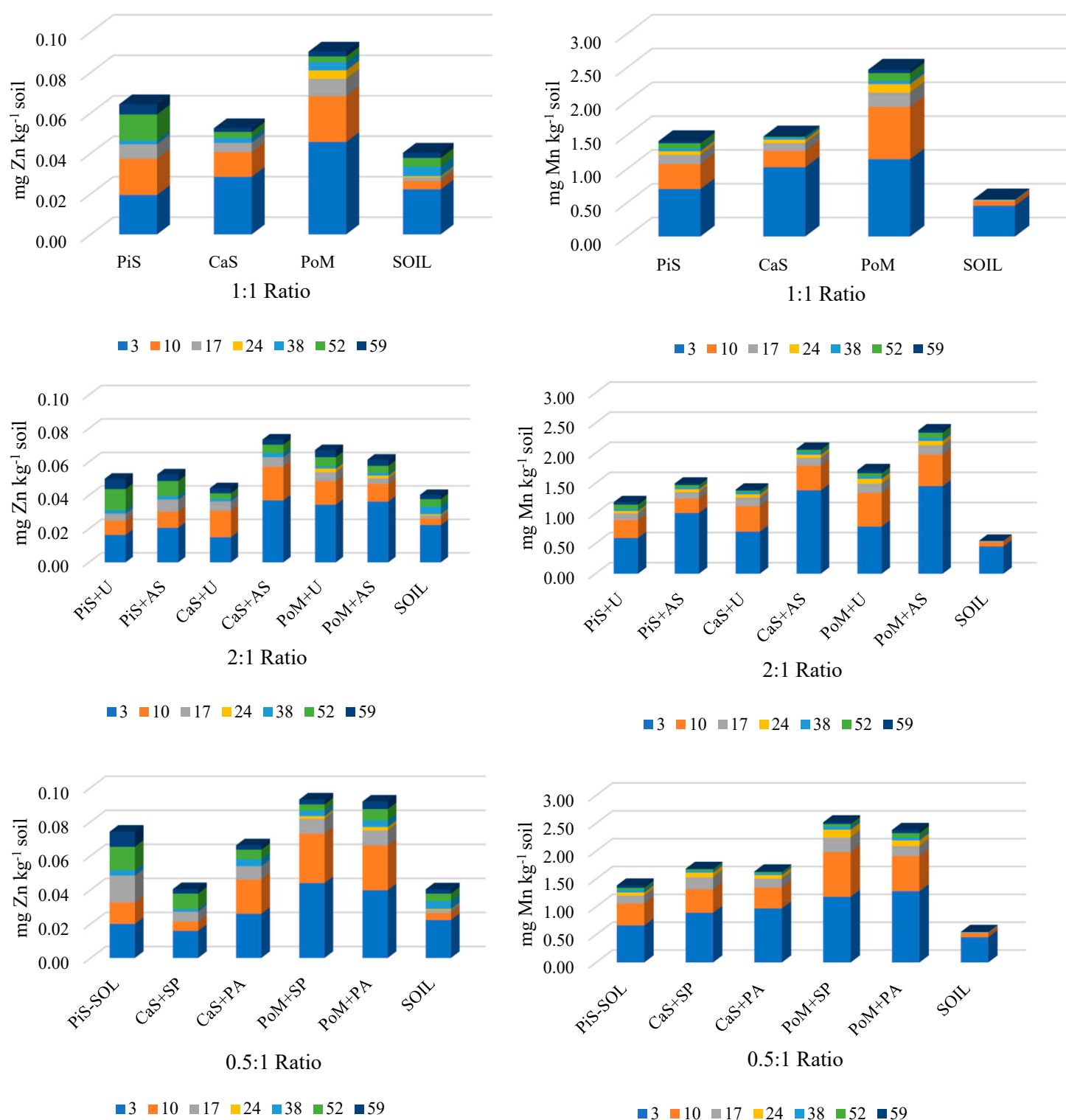


Figure S3: The zinc (left) and the manganese (right) concentrations on the leachate for each 1:1, 2:1 and 0.5:1 ratio during the leaching events. PiS+U: pig slurry with urea, PiS+AS: pig slurry with ammonium sulphate, CaS+U cattle slurry with urea, CaS+AS: cattle slurry with ammonium sulphate, PoM+U: poultry manure with urea, PoM+AS: poultry manure with ammonium sulphate, PiS-SOL: solid fraction from pig manure; CaS+SP: cattle slurry with superphosphate, CaS+PA: cattle slurry with phosphoric acid, PoM+SP: poultry manure with superphosphate and PoM+PA: poultry manure with phosphoric acid.

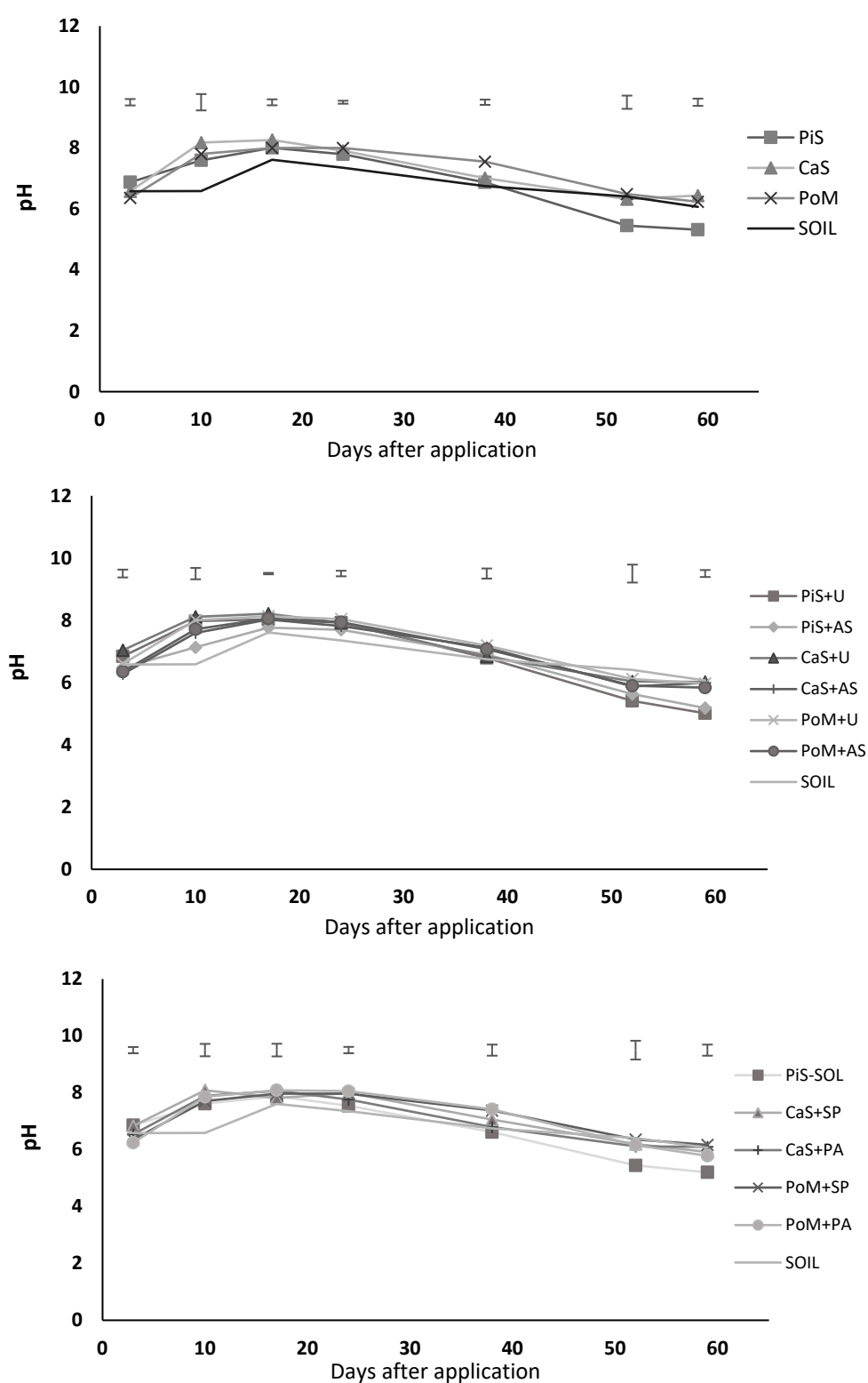


Figure S4: The pH dynamics in the leachate for each 1:1, 2:1 and 0.5:1 ratio during the leaching events. The vertical bars represent the standard errors for the means when performing the Tukey test (n=3). PiS+U: pig slurry with urea, PiS+AS: pig slurry with ammonium sulphate, CaS+U cattle slurry with urea, CaS+AS: cattle slurry with ammonium sulphate, PoM+U: poultry manure with urea, PoM+AS: poultry manure with ammonium sulphate, PiS-SOL: solid fraction from pig manure; CaS+SP: cattle slurry with superphosphate, CaS+PA: cattle slurry with phosphoric acid, PoM+SP: poultry manure with superphosphate and PoM+PA: poultry manure with phosphoric acid.