

NOTICE OF PUBLICATION



Title: Solubility of selected inorganic fertilizers in brackish water

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Abstract: Diammonium phosphate, monoammonium phosphate, triple superphosphate, and urea were dropped through a 1-m column of water which ranged from 0 to 40 ppt salinity. Mean solubility of nitrogen was 4.1% from diammonium phosphate, 11.8% from monoammonium phosphate, and 76.8% from urea. Mean solubility of phosphorus was 4.6% from diammonium phosphate, 10.4% from monoammonium phosphate and 4.4% from triple superphosphate. Salinity did not significantly affect the solubility of nitrogen and phosphorus from diammonium phosphate. Nitrogen solubility from monoammonium phosphate and phosphorus solubility from triple superphosphate significantly decreased with increasing salinity, but the correlations were low. Urea solubility and phosphorus solubility from monoammonium phosphate responded curvilinearly to increasing salinity. Solubility differences caused by salinity disappeared after 24 h of contact with water when all fertilizers dissolved completely regardless of salinity. No adjustment for salinity is necessary when fertilizer rates are calculated for brackish water or marine application.

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