P losses from farmland as affected by N resources and P recovery by P rates

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Phosphate loss through runoff from sloping lands as affected nitrogen sources (Sichuan, China)

	P losses (kg/ha)				
Fertilizer source	In surface runoff	In subsurface runoff	Total		
Ammonium bicarnonate	0.30	0.01	0.31 a		
Acalcium nitrate	0.21	0.01	0.22 b		
Urea	0.30	0.01	0.31 a		
Controlled release urea	0.17	0.02	0.18 b		

Different N sources affect considerably P loss through runoff. Ammonium bicarbonate and urea can significantly enhance P loss than calcium nitrate and controlled release urea, due to the former two that lower soil pH and increase P solubility.



Phosphate recovery by rice as affected by different P fertilizer rates (Hainan, China)

	Grain yield Straw yield		P conc. (%)		P uptake P input P recovery		
Treatment	kg/ha	kg/ha	Grain	Straw	kg/ha	kg/ha	%
NP0K	9556.25	9247.5	0.233	0.08	30.03	0	0
NP1K	11531.3	11458.9	0.243	0.11	40.51	75	13.97
NP2K	12568.8	11935.5	0.258	0.15	50.21	120	16.82
NP3K	12118.8	11836	0.263	0.16	51.28	165	12.88

Where P fertilizer rates were 0, 20, 60 and 80 kg P_2O_5 /ha designated as P0, P1, P2 and P3, respectively.

