


Table 3. Comparison of optimum NPK (OPT) and farmer practices (FP) in Gansu and Xinjiang.

Location	Year	Treatment	N	P ₂ O ₅ kg/ha	K ₂ O	Mean yield [†] , t/ha	Cost [‡] , USD/ha	GRF [§] , USD/ha
Gansu	2006	OPT	225	120	150	12.0a	393	3,807
		FP	300	150	0	11.3b	350	3,617
Gansu	2007	OPT	300	120	150	13.2a	447	4,161
		FP	450	120	0	11.9b	431	3,734
Gansu	2007	OPT	300	120	150	10.4a	447	3,181
		FP	450	120	0	9.5a	431	2,894
Gansu	2007	OPT	225	150	150	11.3a	420	3,544
		FP	150	120	0	9.4b	215	3,073
Gansu	2007	OPT	225	150	150	14.5a	420	4,667
		FP	225	150	0	12.7b	296	4,159
Gansu	2007	OPT	300	120	150	8.9a	447	2,663
		FP	450	120	0	7.9b	431	2,336
Gansu	2009	OPT	225	120	90	9.0a	344	2,816
		FP	150	105	0	8.2b	201	2,659
Gansu	2009	OPT	225	90	60	9.4a	292	2,989
		FP	150	120	0	9.0a	215	2,937
Xinjiang	2006	OPT	232	70	34	11.3a	259	3,691
		FP	274	172	0	11.0a	351	3,489
Xinjiang	2009	FP+K	192	138	225	16.6a	448	5,375
		FP	192	138	0	14.4b	261	4,783
Xinjiang	2007	FP+K	192	138	90	9.8a	336	3,081
		FP	192	138	0	8.8b	261	2,821
Xinjiang	2008	FP+K	192	138	225	16.6a	448	5,375
		FP	192	138	0	14.6b	261	4,845
Xinjiang	2010	FP+K	192	138	225	13.8a	448	4,385
		FP	192	138	0	12.4b	261	4,082

[†]For each location, mean yields followed by the same letter are not significantly different at p<0.05.

[‡]Total costs (USD) of N, P, and K fertilizers: N = \$0.72/kg, P₂O₅ = \$0.89/kg, K₂O = \$0.83/kg. (1 USD = 6.30 RMB)

[§]GRF = gross return to fertilizers; Maize price = \$0.35/kg.

desperate need to develop fertilizer recommendation tools that consider more than just a soil test; and 3) the rates of N and P applied by farmers in northwest China are very high given the yield responses obtained and this needs to change to avoid unnecessary losses in profitability and as well as negative environmental impacts. 

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Crop Nutrient Deficiency Photo Contest Entries Due December 11



December 11, 2012, is the deadline for entries in the annual IPNI contest for photos showing nutrient deficiencies in crops. An individual can submit an entry for each of the four nutrient deficiencies categories: nitrogen (N), phosphorus (P), potassium (K), and other (i.e. secondary nutrients and micronutrients).

Preference is given to original photos with as much supporting/verification data as possible. Cash prizes are offered to First Place (USD 150) and Second Place (USD 75) in each of the four categories, plus a Grand Prize of USD 200 will be awarded to the photo selected as best over all categories. Entries can only be submitted electronically to the contest website: www.ipni.net/photocontest. 