Corrections

AGRICULTURAL SCIENCES

Correction for "Reducing environmental risk by improving N management in intensive Chinese agricultural systems," by Xiao-Tang Ju, Guang-Xi Xing, Xin-Ping Chen, Shao-Lin Zhang, Li-Juan Zhang, Xue-Jun Liu, Zhen-Ling Cui, Bin Yin, Peter Christie, Zhao-Liang Zhu, and Fu-Suo Zhang, which appeared in issue 9, March 3, 2009, of *Proc Natl Acad Sci USA* (106: 3041–3046; first published February 17, 2009; 10.1073/pnas.0813417106).

The authors note that the following errors occurred in their manuscript. On page 3041, left column, in line 4 of the second paragraph, "4,642 (a 98% increase)" should instead read "**4,642 kg per hectare (a 98% increase)**." On page 3041, right column, in the Author contributions footnote, "X.L.-Z.," should instead read "**Z.-L.Z.**" On page 3042, Table 1, in the footnote indicated by a dagger, "regain" should instead read "**region**." On page 3043, right column, in line 17 of the first full paragraph, "43.5%" should instead read "**31.5%**." Also on page 3043, in Table 2, under the heading "Wheat-south" in row 2, "18.4 ± 6.3" should instead read "**34.5 ± 1.1**," and in row 6, "43.5" should instead read "**31.5**." On page 3044, right column, in line 10 of the first full paragraph, "dinitrification" should instead read "**denitrification**." These errors do not affect the conclusions of the article. The corrected Tables 1 and 2 appear below.

Table 1. Average grain yields and total N losses of the optimum N fertilization (ON) compared with farmers' N practices (FN) (Field Study 1 and 2)

		N rate		Grain yield		Total fertilizer N loss*	
Crop and site of field experiment	N fertilization	Rate, kg of N per hectare	Ratio of FN to ON	Yield, kg·ha^{-1}	Ratio of FN to ON	Total loss, kg of N per hectare	Ratio of FN to ON
Rice in Taihu (n = 26)	ON†	200		8,270		102	
	FN	300	1.5	8,012	0.97	174	1.7
Wheat in Taihu (n = 9)	ON†	153		3,700		76	
	FN	250	1.6	4,084	1.10	155	2.0
Wheat in NCP‡ (n = 121)	ON§	128		6,024		25	
	FN	325	2.5	5,764	0.96	71	2.8
Maize in NCP‡ (n = 148)	ON§	158		8,900		52	
	FN	263	1.7	8,500	0.95	108	2.1

*Total fertilizer N losses calculated with the models of Fig. 1B simulated from ^{15}N field experiments.
†Regional mean optimal N application rate calculated from the mean of economically optimum N rates of field experiments in Taihu region (5, 12).
‡Data including Field Study 1 and also summarized from ref. (15, 16); NCP, North China Plain.
§In-season nitrogen management based on soil Nmin test on the NCP (8, 13, 15, 16).

Table 2. Different N loss pathways expressed as a percentage (mean ± SD) of N application rate in farmers' N practices (Field Study 3, Lysimeter Study)

		Taihu region		North China Plain	
Component		Rice	Wheat-south	Wheat-north	Maize
N rate (kg of N per hectare)		300	250	325	263
Recovery rate (%)*		29.6 ± 4.9	34.5 ± 1.1	31.0 ± 3.6	25.5 ± 5.2
Retention rate (%)*		21.7 ± 5.1	28.5 ± 4.6	45.7 ± 5.4	33.9 ± 2.3
Loss pathway	NH_3 volatilization (%)	11.6 ± 4.7	2.1 ± 1.4	19.4 ± 5.2	24.7 ± 5.6
	Leaching out of 1 m soil depth (%)	0.3 ± 0.5	3.4 ± 2.1	2.7 ± 2.6	12.1 ± 8.5
	Denitrification (%)	36.4†	31.5†	0.1 ± 0.04	3.3 ± 1.6

*Measured from corresponding ^{15}N field experiments.
†Calculated by difference method.

www.pnas.org/cgi/doi/10.1073/pnas.0902655106

CORRECTION