

[Supplemental figures and tables]

Table S1. Distribution of fertilizer-derived N before cultivation and at the harvesting stage

Timing	Site	Fertilizer	Percentage of fertilizer-derived N (%)				
			Plant	Rice straw	Labile N	Recalcitrant N	Loss
Before cultivation	Akita	AS	-	8.96 ± 0.29	8.48 ± 1.28	23.61 ± 3.77	58.95 ± 4.94
		LN	-	11.59 ± 1.07	9.87 ± 0.51	33.25 ± 2.87	45.28 ± 3.22
	Miyagi	AS	-	5.09 ± 0.53	17.96 ± 1.67	40.05 ± 4.24	36.90 ± 5.75
		LN	-	4.93 ± 0.44	18.34 ± 1.42	49.22 ± 4.78	27.92 ± 5.57
Harvesting	Akita	AS	3.44 ± 0.16	-	5.14 ± 0.42	26.66 ± 1.01	64.76 ± 0.97
		LN	4.86 ± 0.17	-	8.06 ± 0.23	35.14 ± 2.65	51.94 ± 2.34
	Miyagi	AS	5.25 ± 0.12	-	9.80 ± 0.27	25.96 ± 1.01	58.99 ± 1.35
		LN	6.19 ± 0.05	-	13.16 ± 0.57	45.27 ± 2.84	35.38 ± 2.61

Mean ± standard error ($n = 4$). AS, ammonium sulfate; LN, lime nitrogen.