

Model the Relationship of NH₃ Emission with Attributing Factors from Rice Fields in China:

Ammonia Mitigation Potential Using a Urease Inhibitor

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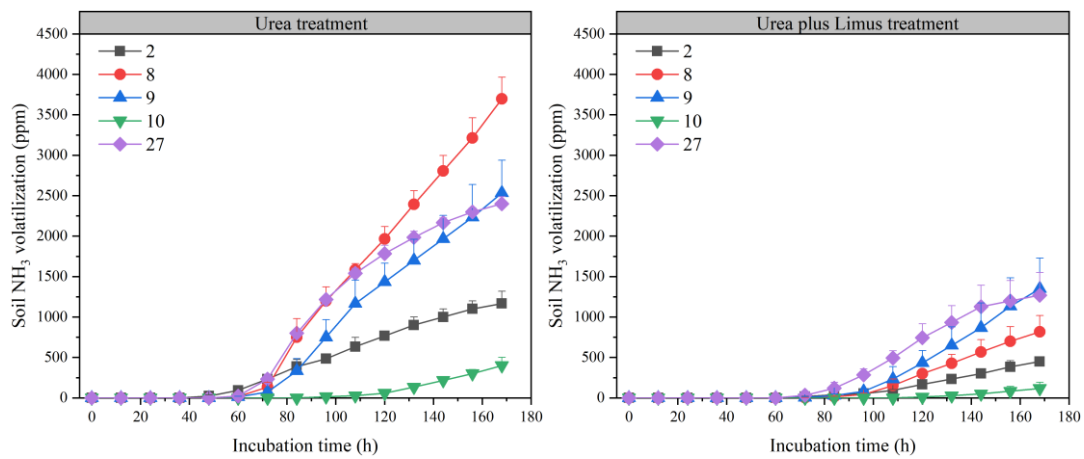
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Table S1 Information of soils used in the incubation experiment

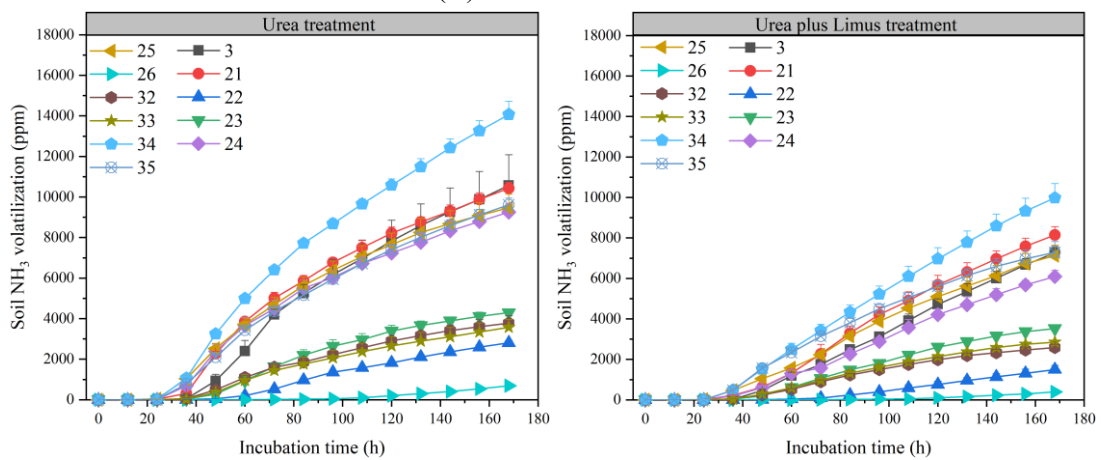
Code for soils	Province	Location	Soil pH	Soil organic carbon (%)	Soil total nitrogen (%)	C/N ratio	IFW pH	ΔFW pH (%)	Sand (%)	Silt (%)	Clay (%)
1	HeNan	Xinyang	5.96	1.64	0.14	11.33	7.05	9.26	5.00	54.40	40.60
2	JiLin	Changchun	6.39	2.38	0.17	14.30	7.02	6.18	8.60	46.30	45.10
3	FuJian	Fuzhou	5.29	1.20	0.10	11.59	6.86	18.06	23.10	40.20	36.70
4	HaiNan	Sanya	5.87	1.04	0.10	10.65	7.11	18.57	57.70	28.40	13.90
5	GuiZhou	Zunyi	6.67	3.14	0.27	11.64	7.72	7.64	7.00	37.30	55.70
6	ChongQing	Site 1	5.10	1.30	0.12	10.57	6.37	7.52	21.70	42.50	35.80
7	ChongQing	Site 2	5.11	1.13	0.10	11.85	6.68	13.53	31.60	35.60	32.80
8	HeiLongJiang	Harbin	5.91	2.14	0.17	12.79	6.76	13.80	7.10	66.00	26.90
9	HeiLongJiang	Fangzheng	5.58	1.80	0.14	12.84	6.22	16.33	8.80	60.20	31.00
10	HeiLongJiang	Wuchang	5.49	2.96	0.22	13.24	6.18	16.81	8.50	56.20	35.30
11	YunNan	Kunming	7.35	1.54	0.13	11.90	7.97	9.58	9.20	28.90	61.90
12	YunNan	Xishuangbanna	5.44	0.91	0.11	8.48	6.77	14.45	9.30	70.30	20.40

13	GuangDong	Guangzhou	6.19	1.33	0.12	11.29	7.34	11.87	28.70	38.60	32.70
14	GuangDong	Yangjiang	5.61	0.97	0.09	11.26	7.12	19.95	60.60	28.60	10.80
15	GuangDong	Qingyuan	5.18	2.36	0.22	10.76	7.20	13.80	28.50	47.70	23.80
16	GuangDong	Cantou	6.34	1.64	0.13	12.25	7.56	7.48	51.50	22.90	25.60
17	SiChuan	Shuangliu	6.44	1.96	0.18	10.68	7.60	11.57	27.50	52.90	19.60
18	SiChuan	Guangan	6.43	1.37	0.13	10.88	7.44	6.46	16.30	43.40	40.30
19	SiChuan	Shehong	7.36	1.61	0.17	9.51	7.60	5.44	18.60	45.50	35.90
20	SiChuan	Yaan	7.25	3.34	0.36	9.20	7.88	3.40	5.40	42.30	52.30
21	JisngSu	Suqian	7.28	2.07	0.19	10.83	7.95	5.74	22.30	63.60	14.10
22	JisngSu	Changshu	6.70	2.25	0.22	10.35	7.46	5.46	8.90	62.80	28.30
23	JisngSu	Yangzhou	7.17	2.59	0.25	10.38	7.70	6.58	15.30	53.90	30.80
24	JisngSu	Yixing	5.88	1.47	0.13	10.98	7.43	8.23	8.20	75.40	16.40
25	ZheJiang	Jinhua	5.53	1.16	0.11	10.14	7.23	12.64	13.50	58.80	27.70
26	ZheJiang	Hangzhou	7.52	1.01	0.09	11.71	7.65	3.76	11.50	52.70	35.80
27	LiaoNing	Shenyang	5.47	1.65	0.13	12.76	5.70	13.14	17.40	49.40	33.20
28	LiaoNing	Yingkou	7.15	1.49	0.12	12.21	7.41	7.34	12.70	50.80	36.50
29	JiangXi	Jiujiang	5.41	1.21	0.12	10.41	6.99	12.94	17.90	53.30	28.80
30	JiangXi	Yujiang	5.04	1.48	0.14	10.28	6.57	15.76	28.20	42.80	29.00
31	JiangXi	Jian	5.09	1.61	0.15	10.63	6.74	17.22	31.60	30.00	38.40
32	AnHui	Bengbu	5.98	1.50	0.14	11.00	7.48	8.63	9.10	56.50	34.40
33	AnHui	Hefei	6.01	1.35	0.12	11.11	7.29	8.52	8.40	62.40	29.20
34	AnHui	Anqing	5.46	1.40	0.13	10.92	6.97	13.86	50.30	34.80	14.90
35	AnHui	Guangde	5.12	1.51	0.14	11.08	6.81	15.98	9.20	66.80	24.00
36	HuNan	Anren	4.89	2.92	0.29	10.15	6.84	14.93	23.80	42.60	33.60
37	HuNan	Taiyuan	6.02	1.33	0.13	10.59	6.96	16.05	29.20	42.80	28.00

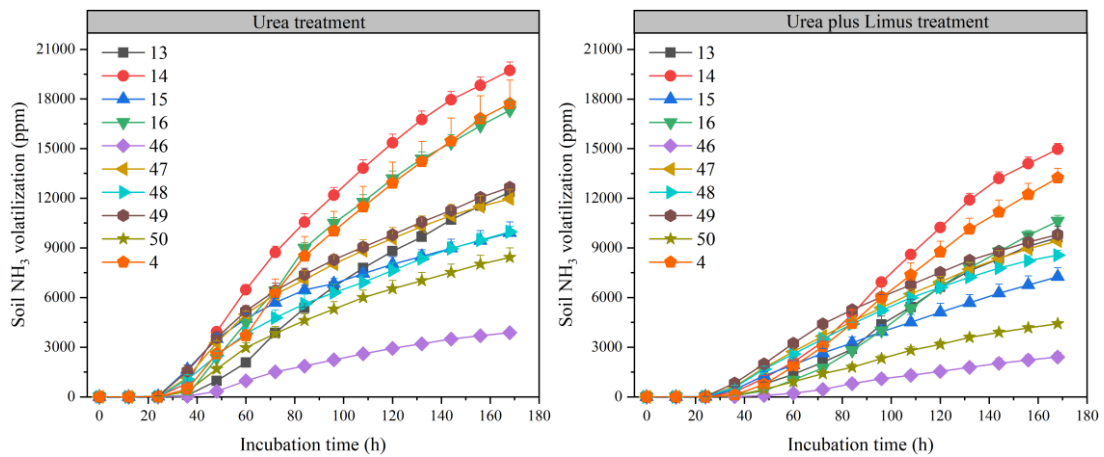
38	HuNan	Xidu	7.03	1.75	0.14	12.10	7.64	11.50	8.80	37.50	53.70
39	HuNan	Anxiang	7.44	3.03	0.29	10.42	7.86	7.37	10.30	50.30	39.40
40	HuNan	LiuYang	5.73	1.35	0.13	10.34	7.24	13.32	16.30	42.80	40.90
41	HuBei	Jingzhou	7.49	1.57	0.14	11.51	7.84	7.93	10.90	56.00	33.10
42	HuBei	Xiaogan	5.26	2.19	0.16	13.96	6.71	17.46	6.80	59.40	33.80
43	HuBei	Yichang	5.88	1.51	0.15	10.44	7.17	12.31	11.10	48.30	40.60
44	HuBei	Qichun	5.20	2.00	0.22	9.13	6.81	12.85	26.50	50.80	22.70
45	HuBei	Qianjiang	7.22	1.67	0.22	7.72	7.63	6.13	3.80	48.90	47.30
46	GuangXi	Guilin	7.22	3.89	0.43	9.10	7.87	5.67	15.30	44.80	39.90
47	GuangXi	Hechi	5.70	1.91	0.20	9.42	7.11	16.17	18.20	58.20	23.60
48	GuangXi	Hechi	5.68	1.88	0.18	10.47	7.12	13.06	18.70	35.30	46.00
49	GuangXi	Guigangguiping	5.04	1.22	0.13	9.50	6.92	17.12	11.70	54.00	34.30
50	GuangXi	Wuzhou	6.71	2.87	0.27	10.74	7.49	12.64	13.50	32.90	53.60



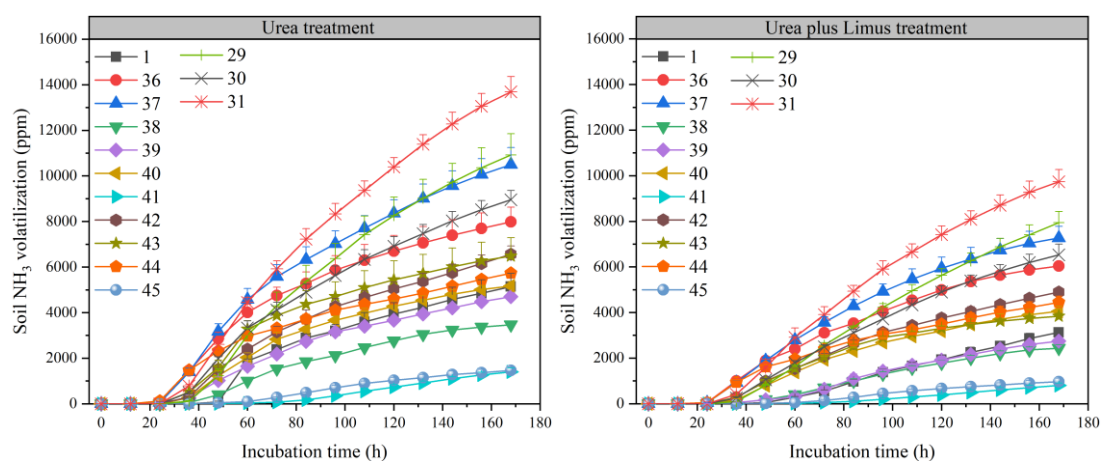
(A) Northeast China



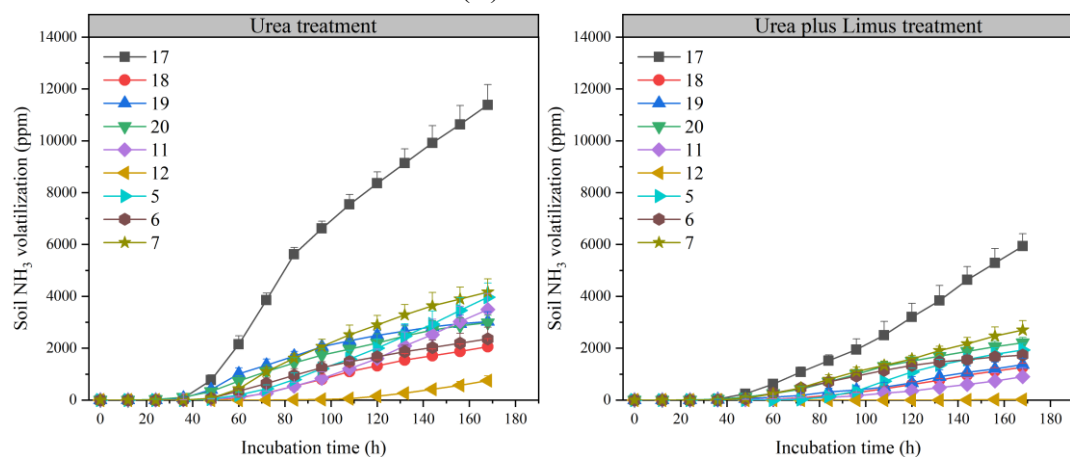
(B) East China



(C) South China



(D) Central China



(E) Southwest China

Figure S1. Dynamics of NH_3 loss after fertilizer application to 50 flooded paddy soils in China
Numbers in the figures indicated the code for each paddy soil, as detailed in Table S1.

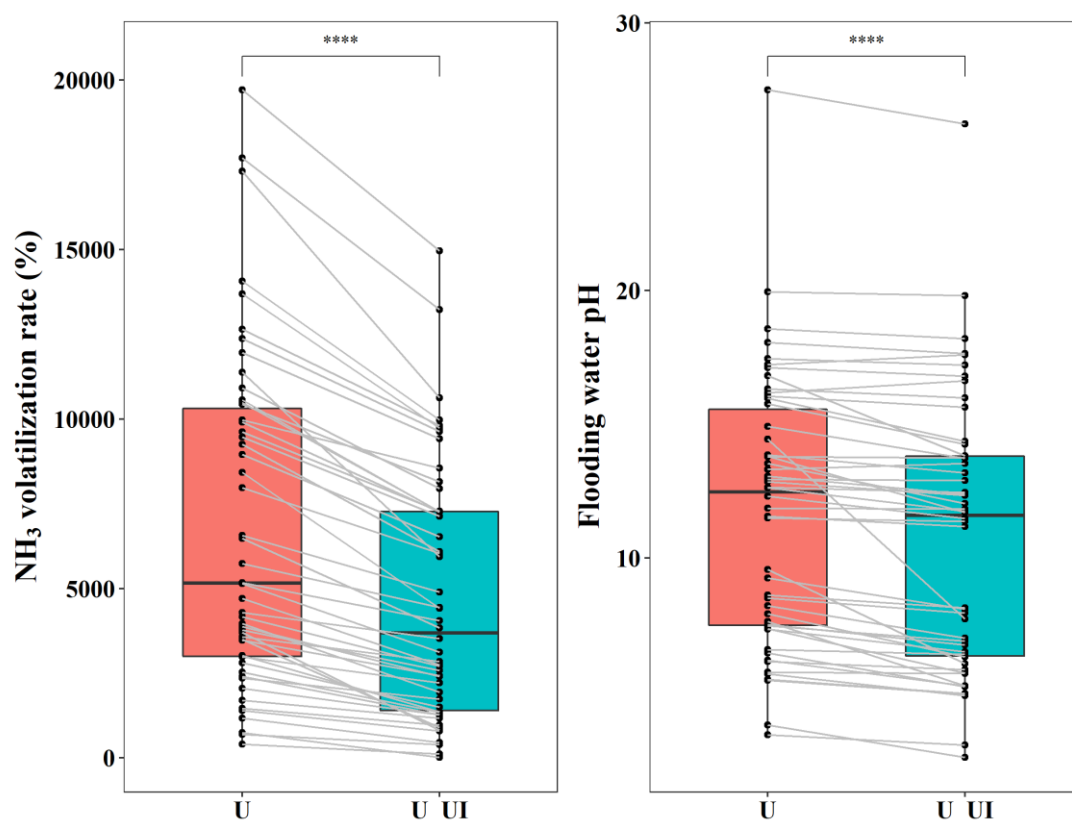


Figure S2. Differences in NH₃ loss potential and changes in flooding water pH under the two treatments: urea (U) and urea plus the Limus® inhibitor (U_UI). Asterisks show significant differences between treatments, with *, **, and *** indicating significance levels at 0.05, 0.01, and 0.001, respectively.

Table S2 List of literature used in the data synthesis

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