

## Supplementary Data3

### Abbreviation

BD: bulk density

SOC: soil organic carbon

TN: total N

Clay: Clay content

TEMP: daily temperature for growth duration

PRECIP: total precipitation for growth

EVAP: total potential evapotranspiration for growth

NFR: N fertilizer rate

# Database of N<sub>2</sub>O

Num	Lat	Long	Crop type	BD (g cm <sup>-3</sup> )	Soil pH	SOC (g kg <sup>-1</sup> )	TN (%)	Clay (%)	TEMP (°C)	PRECIP (mm)	EVAP (mm)	NFR (kg N ha <sup>-1</sup> )	N <sub>2</sub> O emissions (kg N <sub>2</sub> O-N ha <sup>-1</sup> )	Reference
1	29.92	115.50	rice	1.29	5.39	19.37	2.54	34.07	26.60	691.50	792.00	0.00	0.44	Zhang J. et al.(2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture, Ecosystems &amp; Environment</i> . 140(1): 164-173
2	29.92	115.50	rice	1.29	5.39	19.37	2.54	34.07	26.60	691.50	792.00	210.00	4.28	Zhang J. et al.(2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture, Ecosystems &amp; Environment</i> . 140(1): 164-173
3	29.92	115.50	rice	1.29	5.85	15.66	2.48	34.07	26.60	691.50	792.00	0.00	0.28	Zhang J. et al.(2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture, Ecosystems &amp; Environment</i> . 140(1): 164-173
4	29.92	115.50	rice	1.29	5.85	15.66	2.48	34.07	26.60	691.50	792.00	210.00	3.24	Zhang J. et al.(2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture, Ecosystems &amp; Environment</i> . 140(1): 164-173
5	29.92	115.50	rice	1.29	5.39	19.37	2.54	34.07	26.60	682.50	768.00	0.00	0.03	Zhang J. et al.(2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture, Ecosystems &amp; Environment</i> . 140(1): 164-173
6	29.92	115.50	rice	1.29	5.39	19.37	2.54	34.07	26.60	682.50	768.00	210.00	3.40	Zhang J. et al.(2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture, Ecosystems &amp; Environment</i> . 140(1): 164-173
7	29.92	115.50	rice	1.29	5.85	15.66	2.48	34.07	26.60	682.50	768.00	0.00	0.45	Zhang J. et al.(2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture, Ecosystems &amp; Environment</i> . 140(1): 164-173
8	29.92	115.50	rice	1.29	5.85	15.66	2.48	34.07	26.60	682.50	768.00	210.00	2.32	Zhang J. et al.(2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture, Ecosystems &amp; Environment</i> . 140(1): 164-173
9	31.53	120.70	rice	1.42	6.40	34.00	0.88	40.00	25.88	766.50	883.50	0.00	0.40	Zhen J. et al.(2010). Characteristics of CH <sub>4</sub> and N <sub>2</sub> O Emissions and Greenhouse Effects for Mechanical Transplanting Rice in RiceWheatRotation System. <i>Journal of Agro-Environment Science</i>
10	31.53	120.70	rice	1.42	6.40	34.00	0.88	40.00	25.88	766.50	883.50	240.00	2.48	Zhen J. et al.(2010). Characteristics of CH <sub>4</sub> and N <sub>2</sub> O Emissions and Greenhouse Effects for Mechanical Transplanting Rice in RiceWheatRotation System. <i>Journal of Agro-Environment Science</i>
11	31.53	120.70	rice	1.42	6.40	34.00	0.88	40.00	25.88	766.50	883.50	240.00	2.21	Zhen J. et al.(2010). Characteristics of CH <sub>4</sub> and N <sub>2</sub> O Emissions and Greenhouse Effects for Mechanical Transplanting Rice in RiceWheatRotation System. <i>Journal of Agro-Environment Science</i>
12	31.53	120.68	rice	1.42	6.40	34.00	0.88	40.00	25.88	766.50	883.50	0.00	0.40	Zhang Y. et al.(2009). Effects of wheat straw returning and soil tillage on CH <sub>4</sub> and N <sub>2</sub> O emissions in paddy season (in Chinese with English abstract). <i>Ecology and Environmental Sciences</i> . 18(6): 2334-2338
13	31.53	120.68	rice	1.42	6.40	34.00	0.88	40.00	25.88	766.50	883.50	240.00	2.21	Zhang Y. et al.(2009). Effects of wheat straw returning and soil tillage on CH <sub>4</sub> and N <sub>2</sub> O emissions in paddy season (in Chinese with English abstract). <i>Ecology and Environmental Sciences</i> . 18(6): 2334-2338
14	31.53	120.68	rice	1.42	6.40	34.00	0.88	40.00	25.88	766.50	883.50	240.00	2.64	Zhang Y. et al.(2009). Effects of wheat straw returning and soil tillage on CH <sub>4</sub> and N <sub>2</sub> O emissions in paddy season (in Chinese with English abstract). <i>Ecology and Environmental Sciences</i> . 18(6): 2334-2338
15	31.25	120.95	rice	1.40	7.40	12.69	1.03	37.00	25.46	700.50	804.00	0.00	0.78	Hou H. et al.(2012). Seasonal variations of CH <sub>4</sub> and N <sub>2</sub> O emissions in response to water management of paddy fields located in Southeast China. <i>Chemosphere</i> . 89(7): 884-892
16	31.25	120.95	rice	1.40	7.40	12.69	1.03	37.00	25.46	700.50	804.00	250.00	2.43	Hou H. et al.(2012). Seasonal variations of CH <sub>4</sub> and N <sub>2</sub> O emissions in response to water management of paddy fields located in Southeast China. <i>Chemosphere</i> . 89(7): 884-892
17	31.25	120.95	rice	1.40	7.40	12.69	1.03	37.00	25.46	700.50	804.00	250.00	1.00	Hou H. et al.(2012). Seasonal variations of CH <sub>4</sub> and N <sub>2</sub> O emissions in response to water management of paddy fields located in Southeast China. <i>Chemosphere</i> . 89(7): 884-892
18	31.25	120.95	rice	1.40	7.40	12.69	1.03	37.00	25.17	636.00	732.00	300.00	1.48	Hou H. et al.(2012). Seasonal variations of CH <sub>4</sub> and N <sub>2</sub> O emissions in response to water management of paddy fields located in Southeast China. <i>Chemosphere</i> . 89(7): 884-892
19	31.25	120.95	rice	1.40	7.40	12.69	1.03	37.00	26.03	711.00	826.50	0.00	0.10	Peng S. et al.(2011). Field experiments on greenhouse gas emissions and nitrogen and phosphorus losses from rice paddy with efficient irrigation and drainage management. <i>Science China Technological Sciences</i> volume. 54: 1581-1587
20	31.25	120.95	rice	1.40	7.40	12.69	1.03	37.00	26.03	711.00	826.50	337.26	0.66	Peng S. et al.(2011). Field experiments on greenhouse gas emissions and nitrogen and phosphorus losses from rice paddy with efficient irrigation and drainage management. <i>Science China Technological Sciences</i> volume. 54: 1581-1587
21	31.25	120.95	rice	1.40	7.40	12.69	1.03	37.00	26.03	711.00	826.50	337.26	0.57	Peng S. et al.(2011). Field experiments on greenhouse gas emissions and nitrogen and phosphorus losses from rice paddy with efficient irrigation and drainage management. <i>Science China Technological Sciences</i> volume. 54: 1581-1587
22	31.40	119.68	rice	1.40	6.50	24.00	1.80	37.00	25.81	747.00	859.50	0.00	0.76	Zhang A. et al.(2010). Effect of biochar amendment on yield and methane and nitrous oxide emissions from a rice paddy from Tai Lake plain, China. <i>Agriculture, Ecosystems &amp; Environment</i> . 139: 4, 469-475
23	31.40	119.68	rice	1.40	6.50	24.00	1.80	37.00	25.81	747.00	859.50	300.00	1.99	Zhang A. et al.(2010). Effect of biochar amendment on yield and methane and nitrous oxide emissions from a rice paddy from Tai Lake plain, China. <i>Agriculture, Ecosystems &amp; Environment</i> . 139: 4, 469-475
24	31.37	119.82	rice	1.40	6.23	32.60	2.30	24.50	25.14	750.00	709.50	0.00	0.60	Li X. et al.(2011). Effect of timing and duration of midseason aeration on CH <sub>4</sub> and N <sub>2</sub> O emissions from irrigated lowland rice paddies in China. <i>Nutrient Cycling in Agroecosystems</i> . 91: 293-305
25	31.37	119.82	rice	1.40	6.23	32.60	2.30	24.50	25.14	750.00	709.50	225.00	6.30	Li X. et al.(2011). Effect of timing and duration of midseason aeration on CH <sub>4</sub> and N <sub>2</sub> O emissions from irrigated lowland rice paddies in China. <i>Nutrient Cycling in Agroecosystems</i> . 91: 293-305
26	31.37	119.82	rice	1.40	6.23	32.60	2.30	24.50	25.14	750.00	709.50	225.00	5.29	Li X. et al.(2011). Effect of timing and duration of midseason aeration on CH <sub>4</sub> and N <sub>2</sub> O emissions from irrigated lowland rice paddies in China. <i>Nutrient Cycling in Agroecosystems</i> . 91: 293-305
27	31.37	119.82	rice	1.40	6.23	32.60	2.30	24.50	25.14	750.00	709.50	225.00	4.93	Li X. et al.(2011). Effect of timing and duration of midseason aeration on CH <sub>4</sub> and N <sub>2</sub> O emissions from irrigated lowland rice paddies in China. <i>Nutrient Cycling in Agroecosystems</i> . 91: 293-305
28	31.37	119.82	rice	1.40	6.91	11.90	1.50	24.50	25.14	750.00	709.50	225.00	2.31	Li X. et al.(2011). Effect of timing and duration of midseason aeration on CH <sub>4</sub> and N <sub>2</sub> O emissions from irrigated lowland rice paddies in China. <i>Nutrient Cycling in Agroecosystems</i> . 91: 293-305
29	31.37	119.82	rice	1.40	6.91	11.90	1.50	24.50	25.14	750.00	709.50	225.00	1.71	Li X. et al.(2011). Effect of timing and duration of midseason aeration on CH <sub>4</sub> and N <sub>2</sub> O emissions from irrigated lowland rice paddies in China. <i>Nutrient Cycling in Agroecosystems</i> . 91: 293-305
30	31.37	119.82	rice	1.40	6.91	11.90	1.50	24.50	25.14	750.00	709.50	225.00	2.51	Li X. et al.(2011). Effect of timing and duration of midseason aeration on CH <sub>4</sub> and N <sub>2</sub> O emissions from irrigated lowland rice paddies in China. <i>Nutrient Cycling in Agroecosystems</i> . 91: 293-305
31	31.87	118.83	rice	1.23	6.50	15.50	1.50	32.33	26.10	747.00	810.00	0.00	0.03	Liu S et al.(2010). Effects of water regime during rice-growing season on annual direct N <sub>2</sub> O emission in a paddy rice-winter wheat rotation system in southeast China. <i>Science of The Total Environment</i> . 408(4): 906-913
32	31.87	118.83	rice	1.23	6.50	15.50	1.50	32.33	26.10	747.00	810.00	100.00	0.05	Liu S et al.(2010). Effects of water regime during rice-growing season on annual direct N <sub>2</sub> O emission in a paddy rice-winter wheat rotation system in southeast China. <i>Science of The Total Environment</i> . 408(4): 906-913
33	31.87	118.83	rice	1.23	6.50	15.50	1.50	32.33	26.10	747.00	810.00	0.00	0.60	Liu S et al.(2010). Effects of water regime during rice-growing season on annual direct N <sub>2</sub> O emission in a paddy rice-winter wheat rotation system in southeast China. <i>Science of The Total Environment</i> . 408(4): 906-913
34	31.87	118.83	rice	1.23	6.50	15.50	1.50	32.33	26.10	747.00	810.00	100.00	0.90	Liu S et al.(2010). Effects of water regime during rice-growing season on annual direct N <sub>2</sub> O emission in a paddy rice-winter wheat rotation system in southeast China. <i>Science of The Total Environment</i> . 408(4): 906-913
35	31.87	118.83	rice	1.23	6.50	15.50	1.50	32.33	25.14	750.00	709.50	0.00	0.76	Liu S et al.(2010). Effects of water regime during rice-growing season on annual direct N <sub>2</sub> O emission in a paddy rice-winter wheat rotation system in southeast China. <i>Science of The Total Environment</i> . 408(4): 906-913
36	31.87	118.83	rice	1.23	6.50	15.50	1.50	32.33	25.14	750.00	709.50	100.00	1.30	Liu S et al.(2010). Effects of water regime during rice-growing season on annual direct N <sub>2</sub> O emission in a paddy rice-winter wheat rotation system in southeast China. <i>Science of The Total Environment</i> . 408(4): 906-913
37	31.87	118.83	rice	1.40	6.50	15.50	1.50	37.00	25.14	750.00	709.50	0.00	0.03	Qin Y. et al.(2010). Methane and nitrous oxide emissions from organic and conventional rice cropping systems in Southeast China. <i>Biology and Fertility of Soils</i> . 46: 825-834
38	31.87	118.83	rice	1.40	6.50	15.50	1.50	37.00	25.14	750.00	709.50	100.00	0.18	Qin Y. et al.(2010). Methane and nitrous oxide emissions from organic and conventional rice cropping systems in Southeast China. <i>Biology and Fertility of Soils</i> . 46: 825-834
39	31.87	118.83	rice	1.40	6.50	15.50	1.50	37.00	25.14	750.00	709.50	100.00	0.31	Qin Y. et al.(2010). Methane and nitrous oxide emissions from organic and conventional rice cropping systems in Southeast China. <i>Biology and Fertility of Soils</i> . 46: 825-834
40	31.87	118.83	rice	1.40	6.50	15.50	1.50	37.00	25.14	750.00	709.50	100.00	0.39	Qin Y. et al.(2010). Methane and nitrous oxide emissions from organic and conventional rice cropping systems in Southeast China. <i>Biology and Fertility of Soils</i> . 46: 825-834
41	31.87	118.83	rice	1.40	6.50	15.50	1.50	37.00	25.14	750.00	709.50	100.00	0.05	Qin Y. et al.(2010). Methane and nitrous oxide emissions from organic and conventional rice cropping systems in Southeast China. <i>Biology and Fertility of Soils</i> . 46: 825-834
42	31.87	118.83	rice	1.40	6.50	15.50	1.50	37.00	25.14	750.00	709.50	100.00	0.90	Qin Y. et al.(2010). Methane and nitrous oxide emissions from organic and conventional rice cropping systems in Southeast China. <i>Biology and Fertility of Soils</i> . 46: 825-834
43	31.87	118.83	rice	1.40	6.50	15.50	1.50	37.00	25.14	750.00	709.50	100.00	1.30	Qin Y. et al.(2010). Methane and nitrous oxide emissions from organic and conventional rice cropping systems in Southeast China. <i>Biology and Fertility of Soils</i> . 46: 825-834
44	31.87	118.83	rice	1.23	7.99	10.73	1.16	32.33	25.10	672.00	780.00	0.00	0.14	Cai Z. et al.(1997). Methane and nitrous oxide emissions from rice paddy fields as affected by nitrogen fertilizers and water management. <i>Plant and Soil</i> . 196: 7-14
45	31.87	118.83	rice	1.23	7.99	10.73	1.16	32.33	25.10	672.00	780.00	100.00	0.17	Cai Z. et al.(1997). Methane and nitrous oxide emissions from rice paddy fields as affected by nitrogen fertilizers and water management. <i>Plant and Soil</i> . 196: 7-14
46	31.87	118.83	rice	1.23	7.99	10.73	1.16	32.33	25.10	672.00	780.00	100.00	0.16	Cai Z. et al.(1997). Methane and nitrous oxide emissions from rice paddy fields as affected by nitrogen fertilizers and water management. <i>Plant and Soil</i> . 196: 7-14
47	31.87	118.83	rice	1.23	7.99	10.73	1.16	32.33	25.10	672.00	780.00	300.00	0.98	Cai Z. et al.(1997). Methane and nitrous oxide emissions from rice paddy fields as affected by nitrogen fertilizers and water management. <i>Plant and Soil</i> . 196: 7-14
48	31.87	118.83	rice	1.23	7.99	10.73	1.16	32.33	25.10	672.00	780.00	300.00	0.62	Cai Z. et al.(1997). Methane and nitrous oxide emissions from rice paddy fields as affected by nitrogen fertilizers and water management. <i>Plant and Soil</i> . 196: 7-14
49	31.87	118.83	rice	1.23	6.30	15.20	1.70	32.33	26.10	747.00	810.00	0.00	0.30	Zou J. et al.(2009). Sewage irrigation increased methane and nitrous oxide emissions from rice paddies in southeast China. <i>Agriculture, Ecosystems &amp; Environment</i> . 129(4): 516-522
50	31.87	118.83	rice	1.23	6.30	15.20	1.70	32.33	26.10	747.00	810.00	200.00	1.33	Zou J. et al.(2009). Sewage irrigation increased methane and nitrous oxide emissions from rice paddies in southeast China. <i>Agriculture, Ecosystems &amp; Environment</i> . 129(4): 516-522
51	31.87	118.83	rice	1.23	6.30	15.20	1.70	32.33	26.10	747.00	810.00	0.00	0.81	Zou J. et al.(2009). Sewage irrigation increased methane and nitrous oxide emissions from rice paddies in southeast China. <i>Agriculture, Ecosystems &amp; Environment</i> . 129(4): 516-522
52	31.87	118.83	rice	1.23	6.30	15.20	1.70	32.33	26.10	747.00	810.00	200.00	2.24	Zou J. et al.(2009). Sewage irrigation increased methane and nitrous oxide emissions from rice paddies in southeast China. <i>Agriculture, Ecosystems &amp; Environment</i> . 129(4): 516-522
53	31.87	118.83	rice	1.23	5.70	14.70	1.32	32.33	25.77	732.00	837.00	0.00	0.22	Wang J. et al.(2011). Water regime-nitrogen fertilizer-straw incorporation interaction. <i>Agriculture, Ecosystems &amp; Environment</i> . 141(3): 437-446
54	31.87	118.83	rice	1.23	5.70	14.70	1.32	32.33	25.77	732.00				









475	31.27	119.95	rice	1.40	6.25	14.50	15.56	25.00	25.13	649.50	718.50	180.00	1.02	Sun H. et al. (2015). Rice production, nitrous oxide emission and ammonia volatilizations impacted by the nitrification inhibitor 2-chloro-6-(trichloromethyl)-pyridine. <i>Field Crops Research</i> . 173(1): 1-7
476	31.27	119.95	rice	1.40	6.25	14.50	15.56	25.00	25.13	649.50	718.50	240.00	1.19	Sun H. et al. (2015). Rice production, nitrous oxide emission and ammonia volatilizations impacted by the nitrification inhibitor 2-chloro-6-(trichloromethyl)-pyridine. <i>Field Crops Research</i> . 173(1): 1-7
477	31.27	119.95	rice	1.40	6.25	14.50	15.56	25.00	25.98	636.00	793.50	180.00	0.44	Sun H. et al. (2015). Rice production, nitrous oxide emission and ammonia volatilizations impacted by the nitrification inhibitor 2-chloro-6-(trichloromethyl)-pyridine. <i>Field Crops Research</i> . 173(1): 1-7
478	31.27	119.95	rice	1.40	6.25	14.50	15.56	25.00	25.98	636.00	793.50	240.00	0.59	Sun H. et al. (2015). Rice production, nitrous oxide emission and ammonia volatilizations impacted by the nitrification inhibitor 2-chloro-6-(trichloromethyl)-pyridine. <i>Field Crops Research</i> . 173(1): 1-7
479	31.27	121.62	rice	1.40	5.90	15.65	12.81	21.00	25.20	681.00	781.50	150.00	0.10	Zhang X et al. (2014). Comparison of greenhouse gas emissions from rice paddy fields under different nitrogen fertilization loads in Chongming Island, Eastern China. <i>Science of The Total Environment</i> . 472(15): 381-388
480	31.61	121.62	rice	1.40	7.90	15.65	12.81	21.00	25.20	681.00	781.50	210.00	0.25	Zhang X et al. (2014). Comparison of greenhouse gas emissions from rice paddy fields under different nitrogen fertilization loads in Chongming Island, Eastern China. <i>Science of The Total Environment</i> . 472(15): 381-388
481	31.61	121.62	rice	1.40	7.90	15.65	12.81	21.00	25.20	681.00	781.50	300.00	0.45	Zhang X et al. (2014). Comparison of greenhouse gas emissions from rice paddy fields under different nitrogen fertilization loads in Chongming Island, Eastern China. <i>Science of The Total Environment</i> . 472(15): 381-388
482	31.61	121.62	rice	1.12	5.09	19.72	19.8	23.91	25.90	822.00	952.50	0.00	0.78	Xia L. et al. (2014). Effects of long-term straw incorporation on the net global warming potential and the net economic benefit in a rice-wheat cropping system in China. <i>Agriculture, Ecosystems &amp; Environment</i> . 197(1): 118-127
483	31.53	120.70	rice	1.12	5.09	19.72	19.8	23.91	25.90	822.00	952.50	180.00	8.69	Xia L. et al. (2014). Effects of long-term straw incorporation on the net global warming potential and the net economic benefit in a rice-wheat cropping system in China. <i>Agriculture, Ecosystems &amp; Environment</i> . 197(1): 118-127
484	31.53	120.70	rice	1.12	5.09	19.72	19.8	23.91	26.15	651.00	774.00	180.00	0.12	Xia L. et al. (2014). Effects of long-term straw incorporation on the net global warming potential and the net economic benefit in a rice-wheat cropping system in China. <i>Agriculture, Ecosystems &amp; Environment</i> . 197(1): 118-127
485	31.53	120.70	rice	1.12	5.09	19.72	19.8	23.91	26.15	651.00	774.00	180.00	9.80	Xia L. et al. (2014). Effects of long-term straw incorporation on the net global warming potential and the net economic benefit in a rice-wheat cropping system in China. <i>Agriculture, Ecosystems &amp; Environment</i> . 197(1): 118-127
486	31.53	120.70	rice	1.12	5.09	19.72	19.8	23.91	26.15	651.00	774.00	180.00	0.00	Xia L. et al. (2014). Effects of long-term straw incorporation on the net global warming potential and the net economic benefit in a rice-wheat cropping system in China. <i>Agriculture, Ecosystems &amp; Environment</i> . 197(1): 118-127
487	31.53	120.70	rice	1.12	5.09	19.72	19.8	23.91	26.15	651.00	774.00	180.00	6.86	Xia L. et al. (2014). Effects of long-term straw incorporation on the net global warming potential and the net economic benefit in a rice-wheat cropping system in China. <i>Agriculture, Ecosystems &amp; Environment</i> . 197(1): 118-127
488	31.53	120.70	rice	1.12	5.09	19.72	19.8	23.91	26.15	651.00	774.00	180.00	7.18	Xia L. et al. (2014). Effects of long-term straw incorporation on the net global warming potential and the net economic benefit in a rice-wheat cropping system in China. <i>Agriculture, Ecosystems &amp; Environment</i> . 197(1): 118-127
489	31.53	120.70	rice	1.12	5.09	19.72	19.8	23.91	26.15	651.00	774.00	180.00	1.12	Xia L. et al. (2014). Effects of long-term straw incorporation on the net global warming potential and the net economic benefit in a rice-wheat cropping system in China. <i>Agriculture, Ecosystems &amp; Environment</i> . 197(1): 118-127
490	31.53	120.70	rice	1.12	5.09	19.72	19.8	23.91	26.15	651.00	774.00	180.00	1.00	Xia L. et al. (2014). Effects of long-term straw incorporation on the net global warming potential and the net economic benefit in a rice-wheat cropping system in China. <i>Agriculture, Ecosystems &amp; Environment</i> . 197(1): 118-127
491	28.55	113.32	rice	1.07	5.31	18.40	19.8	19.00	24.70	547.20	591.60	0.00	0.10	Shen J. et al. (2014). Contrasting effects of straw and straw-derived biochar amendments on greenhouse gas emissions within double rice cropping systems. <i>Agriculture, Ecosystems &amp; Environment</i> . 188(15): 264-274
492	28.55	113.32	rice	1.07	5.31	18.40	19.8	19.00	24.70	547.20	591.60	150.00	0.45	Shen J. et al. (2014). Contrasting effects of straw and straw-derived biochar amendments on greenhouse gas emissions within double rice cropping systems. <i>Agriculture, Ecosystems &amp; Environment</i> . 188(15): 264-274
493	28.55	113.32	rice	1.07	5.31	18.40	19.8	19.00	25.09	954.00	412.80	120.00	1.11	Shen J. et al. (2014). Contrasting effects of straw and straw-derived biochar amendments on greenhouse gas emissions within double rice cropping systems. <i>Agriculture, Ecosystems &amp; Environment</i> . 188(15): 264-274
494	31.87	118.83	rice	1.23	6.70	14.80	15.0	54.00	25.10	783.00	841.50	0.00	0.65	Liu S et al.(2014). Methane and nitrous oxide emissions from direct-seeded and seedling-transplanted rice paddies in southeast China. <i>Plant and Soil</i> . 374: 285-297
495	31.87	118.83	rice	1.23	6.70	14.80	15.0	54.00	25.10	783.00	841.50	250.00	1.79	Liu S et al.(2014). Methane and nitrous oxide emissions from direct-seeded and seedling-transplanted rice paddies in southeast China. <i>Plant and Soil</i> . 374: 285-297
496	31.87	118.83	rice	1.23	6.70	14.80	15.0	54.00	25.10	783.00	841.50	0.00	0.95	Liu S et al.(2014). Methane and nitrous oxide emissions from direct-seeded and seedling-transplanted rice paddies in southeast China. <i>Plant and Soil</i> . 374: 285-297
497	31.87	118.83	rice	1.23	6.70	14.80	15.0	54.00	25.10	783.00	841.50	250.00	2.69	Liu S et al.(2014). Methane and nitrous oxide emissions from direct-seeded and seedling-transplanted rice paddies in southeast China. <i>Plant and Soil</i> . 374: 285-297
498	31.98	119.26	rice	1.58	6.91	11.59	15.00	16.00	25.57	688.50	855.00	150.00	2.48	Liu S et al.(2014). Methane and nitrous oxide emissions from direct-seeded and seedling-transplanted rice paddies in southeast China. <i>Plant and Soil</i> . 374: 285-297
499	31.98	119.26	rice	1.58	6.91	11.59	15.00	16.00	25.94	760.50	800.00	150.00	1.47	Liu S et al.(2014). Methane and nitrous oxide emissions from direct-seeded and seedling-transplanted rice paddies in southeast China. <i>Plant and Soil</i> . 374: 285-297
500	31.98	119.26	rice	1.58	6.91	11.59	15.00	16.00	25.57	688.50	855.00	150.00	2.25	Liu S et al.(2014). Methane and nitrous oxide emissions from direct-seeded and seedling-transplanted rice paddies in southeast China. <i>Plant and Soil</i> . 374: 285-297
501	31.98	119.26	rice	1.58	6.91	11.59	15.00	16.00	25.57	688.50	855.00	150.00	1.96	Liu S et al.(2014). Methane and nitrous oxide emissions from direct-seeded and seedling-transplanted rice paddies in southeast China. <i>Plant and Soil</i> . 374: 285-297
502	31.98	119.26	rice	1.58	6.91	11.59	15.00	16.00	25.57	688.50	855.00	150.00	2.27	Liu S et al.(2014). Methane and nitrous oxide emissions from direct-seeded and seedling-transplanted rice paddies in southeast China. <i>Plant and Soil</i> . 374: 285-297
503	34.20	119.92	rice	1.37	7.90	9.98	0.91	26.00	25.79	600.00	819.00	0.00	0.10	Hang X et al.(2014). Differences in rice yield and CH <sub>4</sub> and N <sub>2</sub> O emissions among mechanical planting methods with straw incorporation in Jianghuai area, China. <i>Soil and Tillage Research</i> . 144: 205-210
504	34.20	119.92	rice	1.37	7.90	9.98	0.91	26.00	25.79	600.00	819.00	300.00	1.47	Hang X et al.(2014). Differences in rice yield and CH <sub>4</sub> and N <sub>2</sub> O emissions among mechanical planting methods with straw incorporation in Jianghuai area, China. <i>Soil and Tillage Research</i> . 144: 205-210
505	34.20	119.92	rice	1.37	7.90	9.98	0.91	26.00	25.79	600.00	819.00	300.00	1.32	Hang X et al.(2014). Differences in rice yield and CH <sub>4</sub> and N <sub>2</sub> O emissions among mechanical planting methods with straw incorporation in Jianghuai area, China. <i>Soil and Tillage Research</i> . 144: 205-210
506	34.20	119.92	rice	1.37	7.90	9.98	0.91	26.00	25.79	600.00	819.00	300.00	0.77	Hang X et al.(2014). Differences in rice yield and CH <sub>4</sub> and N <sub>2</sub> O emissions among mechanical planting methods with straw incorporation in Jianghuai area, China. <i>Soil and Tillage Research</i> . 144: 205-210
507	34.20	119.92	rice	1.37	7.90	9.98	0.91	26.00	25.79	600.00	819.00	300.00	1.26	Hang X et al.(2014). Differences in rice yield and CH <sub>4</sub> and N <sub>2</sub> O emissions among mechanical planting methods with straw incorporation in Jianghuai area, China. <i>Soil and Tillage Research</i> . 144: 205-210
508	34.20	119.92	rice	1.37	7.90	9.98	0.91	26.00	25.79	600.00	819.00	300.00	0.85	Hang X et al.(2014). Differences in rice yield and CH <sub>4</sub> and N <sub>2</sub> O emissions among mechanical planting methods with straw incorporation in Jianghuai area, China. <i>Soil and Tillage Research</i> . 144: 205-210
509	34.20	119.92	rice	1.37	7.90	9.98	0.91	26.00	25.79	600.00	819.00	300.00	0.83	Hang X et al.(2014). Differences in rice yield and CH <sub>4</sub> and N <sub>2</sub> O emissions among mechanical planting methods with straw incorporation in Jianghuai area, China. <i>Soil and Tillage Research</i> . 144: 205-210
510	34.20	119.92	rice	1.37	7.90	9.98	0.91	26.00	25.31	750.00	880.50	300.00	1.60	Hang X et al.(2014). Differences in rice yield and CH <sub>4</sub> and N <sub>2</sub> O emissions among mechanical planting methods with straw incorporation in Jianghuai area, China. <i>Soil and Tillage Research</i> . 144: 205-210
511	34.20	119.92	rice	1.37	7.90	9.98	0.91	26.00	25.31	750.00	880.50	300.00	1.31	Hang X et al.(2014). Differences in rice yield and CH <sub>4</sub> and N <sub>2</sub> O emissions among mechanical planting methods with straw incorporation in Jianghuai area, China. <i>Soil and Tillage Research</i> . 144: 205-210
512	34.20	119.92	rice	1.37	7.90	9.98	0.91	26.00	25.31	750.00	880.50	300.00	1.62	Hang X et al.(2014). Differences in rice yield and CH <sub>4</sub> and N <sub>2</sub> O emissions among mechanical planting methods with straw incorporation in Jianghuai area, China. <i>Soil and Tillage Research</i> . 144: 205-210
513	34.20	119.92	rice	1.37	7.90	9.98	0.91	26.00	25.31	750.00	880.50	300.00	1.55	Hang X et al.(2014). Differences in rice yield and CH <sub>4</sub> and N <sub>2</sub> O emissions among mechanical planting methods with straw incorporation in Jianghuai area, China. <i>Soil and Tillage Research</i> . 144: 205-210
514	34.20	119.92	rice	1.37	7.90	9.98	0.91	26.00	25.31	750.00	880.50	300.00	1.84	Hang X et al.(2014). Differences in rice yield and CH <sub>4</sub> and N <sub>2</sub> O emissions among mechanical planting methods with straw incorporation in Jianghuai area, China. <i>Soil and Tillage Research</i> . 144: 205-210
515	34.20	119.92	rice	1.37	7.90	9.98	0.91	26.00	25.31	750.00	880.50	300.00	1.45	Hang X et al.(2014). Differences in rice yield and CH <sub>4</sub> and N <sub>2</sub> O emissions among mechanical planting methods with straw incorporation in Jianghuai area, China. <i>Soil and Tillage Research</i> . 144: 205-210
516	32.63	110.80	rice	1.30	6.20	3.60	1.18	33.82	22.90	661.50	724.50	0.00	0.09	Yao Z et al.(2014). Water-saving ground cover rice production system reduces net greenhouse gas fluxes in an annual rice-based cropping system. <i>Biogeosciences</i> . 11: 6221-6236
517	32.63	110.80	rice	1.30	6.20	3.60	1.18	33.82	22.90	661.50	724.50	150.00	0.21	Yao Z et al.(2014). Water-saving ground cover rice production system reduces net greenhouse gas fluxes in an annual rice-based cropping system. <i>Biogeosciences</i> . 11: 6221-6236
518	32.63	110.80	rice	1.30	6.20	3.60	1.18	33.82	22.90	661.50	724.50	0.00	0.12	Yao Z et al.(2014). Water-saving ground cover rice production system reduces net greenhouse gas fluxes in an annual rice-based cropping system. <i>Biogeosciences</i> . 11: 6221-6236
519	32.63	110.80	rice	1.30	6.20	3.60	1.18	33.82	22.90	661.50	724.50	150.00	0.15	Yao Z et al.(2014). Water-saving ground cover rice production system reduces net greenhouse gas fluxes in an annual rice-based cropping system. <i>Biogeosciences</i> . 11: 6221-6236
520	32.63	110.80	rice	1.30	6.20	3.60	1.18	33.82	22.90	661.50	724.50	150.00	0.33	Yao Z et al.(2014). Water-saving ground cover rice production system reduces net greenhouse gas fluxes in an annual rice-based cropping system. <i>Biogeosciences</i> . 11: 6221-6236
521	31.97	119.30	rice	1.39	6.91	4.01	1.70	44.00	25.57	688.50	855.00	0.00	0.10	Ji Y et al.(2013). Effect of controlled-release fertilizer on mitigation of N <sub>2</sub> O emission from paddy field in South China: a multi-year field observation. <i>Plant and Soil</i> . 371: 473-486
522	31.97	119.30	rice	1.39	6.91	4.01	1.70	44.00	25.57	688.50	855.00	240.00	0.33	Ji Y et al.(2013). Effect of controlled-release fertilizer on mitigation of N <sub>2</sub> O emission from paddy field in South China: a multi-year field observation. <i>Plant and Soil</i> . 371: 473-486
523	31.97	119.30	rice	1.39	6.91	4.01	1.70	44.00	25.73	781.50	907.50	0.00	0.05	Ji Y et al.(2013). Effect of controlled-release fertilizer on mitigation of N <sub>2</sub> O emission from paddy field in South China: a multi-year field observation. <i>Plant and Soil</i> . 371: 473-486
524	31.97	119.30	rice	1.39	6.91	4.01	1.70	44.00	25.73	781.50	907.50	240.00	0.23	Ji Y et al.(2013). Effect of controlled-release fertilizer on mitigation of N <sub>2</sub> O emission from paddy field in South China: a multi-year field observation. <i>Plant and Soil</i> . 371: 473-486
525	31.97	119.30	rice	1.39	6.91	4.01	1.70	44.00	25.63	642.00	793.50	0.00	0.19	Ji Y et al.(2013). Effect of controlled-release fertilizer on mitigation of N <sub>2</sub> O emission from paddy field in South China: a multi-year field observation. <i>Plant and Soil</i> . 371: 473-486
526	31.97	119.30	rice	1.39	6.91	4.01	1.70	44.00	25.63	642.00	793.50	240.00	0.68	Ji Y et al.(2013). Effect of controlled-release fertilizer on mitigation of N <sub>2</sub> O emission from paddy field in South China: a multi-year field observation. <i>Plant and Soil</i> . 371: 473-486
527	31.97	119.30	rice	1.40	6.91	14.56	17.00	26.00	24.87	823.50	837.00	0.00	0.05	Ji Y et al.(2013). Effect of controlled-release fertilizer on mitigation of N <sub>2</sub> O emission from paddy field in South China: a multi-year field observation. <i>Plant and Soil</i> . 371: 473-486
528	31.97	119.30	rice	1.40	6.91	14.56	17.00	26.00	24.87	823.50	837.00	240.00	0.65	Ji Y et al.(2013). Effect of controlled-release fertilizer on mitigation of N <sub>2</sub> O emission from paddy field in South China: a multi-year field observation. <i>Plant and Soil</i> . 371: 473-486
529	31.97	119.30	rice	1.39	6.91	11.05	17.00	14.00	24.87	823.50	837.00	0.00	0.05	Ji Y et al.(2013). Effect of controlled-release fertilizer on mitigation of N <sub>2</sub> O emission from paddy field in South China: a multi-year field observation. <i>Plant and Soil</i> . 371: 473-486
530	31.97	119.30	rice	1.39	6.91	11.05	17.00	14.00	24.87	823.50	837.00	240.00	0.50	Ji Y et al.(2013). Effect of controlled-release fertilizer on mitigation of N <sub>2</sub> O emission from paddy field in South China: a multi-year field observation. <i>Plant and Soil</i> . 371: 473-486
531	47.58	133.52	rice	1.51	6.50	26.00	1.75	22.00	18.56	457.50	865.50	0.00	0.53	Cheu W et al.(2013). The effect of planting density on carbon dioxide, methane and nitrous oxide emissions from a cold paddy field in the Sanjiang Plain, northeast China. <i>Agriculture, Ecosystems &amp; Environment</i> . 178: 64-70
532	47.58	133.52	rice	1.51	6.50	26.00	1.75	22.00	18.56	457.50	865.50	150.00	1.30	Cheu W et al.(2013). The effect of planting density on carbon dioxide, methane and nitrous oxide emissions from a cold paddy field in the Sanjiang Plain, northeast China. <i>Agriculture, Ecosystems &amp; Environment</i> . 178: 64-70
533	47.58	133.52	rice	1.51	6.50	26.00	1.75	22.00	18.56	457.50	865.50	150.00	1.50	Cheu W et al.(2013). The effect of planting density on carbon dioxide, methane and nitrous oxide emissions from a cold paddy field in the Sanjiang Plain, northeast











955	23.13	113.30	rice	1.42	6.00	23.96	1.62	37.00	25.80	832.50	624.00	150.00	0.97	Liang K. et al. (2017). Nitrogen losses and greenhouse gas emissions under different N and water management in a subtropical double-season rice cropping system. <i>Science of the Total Environment</i> . 609: 46-57.
956	23.13	113.30	rice	1.42	6.00	23.96	1.62	37.00	26.80	832.50	624.00	150.00	1.05	Liang K. et al. (2017). Nitrogen losses and greenhouse gas emissions under different N and water management in a subtropical double-season rice cropping system. <i>Science of the Total Environment</i> . 609: 46-57.
957	23.13	113.30	rice	1.42	6.00	23.96	1.62	37.00	27.80	832.50	624.00	210.00	2.42	Liang K. et al. (2017). Nitrogen losses and greenhouse gas emissions under different N and water management in a subtropical double-season rice cropping system. <i>Science of the Total Environment</i> . 609: 46-57.
958	23.13	113.30	rice	1.42	6.00	23.96	1.62	37.00	28.80	832.50	624.00	180.00	1.68	Liang K. et al. (2017). Nitrogen losses and greenhouse gas emissions under different N and water management in a subtropical double-season rice cropping system. <i>Science of the Total Environment</i> . 609: 46-57.
959	23.13	113.30	rice	1.42	6.00	23.96	1.62	37.00	29.80	832.50	624.00	180.00	1.89	Liang K. et al. (2017). Nitrogen losses and greenhouse gas emissions under different N and water management in a subtropical double-season rice cropping system. <i>Science of the Total Environment</i> . 609: 46-57.
960	30.13	120.16	rice	1.22	5.57	12.22	2.05	27.92	25.70	714.00	781.50	0.00	0.05	Meswiny P. et al. (2005). Nonlinear response of N2O flux to incremental fertilizer addition in a continuous maize (Zea mays L.) cropping system. <i>Global Change Biology</i> . 11: 1712-1719.
961	30.13	120.16	rice	1.22	5.57	12.22	2.05	27.92	25.70	714.00	781.50	75.00	0.13	Meswiny P. et al. (2005). Nonlinear response of N2O flux to incremental fertilizer addition in a continuous maize (Zea mays L.) cropping system. <i>Global Change Biology</i> . 11: 1712-1719.
962	30.13	120.16	rice	1.22	5.57	12.22	2.05	27.92	25.70	714.00	781.50	150.00	0.19	Meswiny P. et al. (2005). Nonlinear response of N2O flux to incremental fertilizer addition in a continuous maize (Zea mays L.) cropping system. <i>Global Change Biology</i> . 11: 1712-1719.
963	30.13	120.16	rice	1.22	5.57	12.22	2.05	27.92	25.70	714.00	781.50	225.00	0.20	Meswiny P. et al. (2005). Nonlinear response of N2O flux to incremental fertilizer addition in a continuous maize (Zea mays L.) cropping system. <i>Global Change Biology</i> . 11: 1712-1719.
964	30.13	120.16	rice	1.22	5.57	12.22	2.05	27.92	25.70	714.00	781.50	300.00	0.36	Meswiny P. et al. (2005). Nonlinear response of N2O flux to incremental fertilizer addition in a continuous maize (Zea mays L.) cropping system. <i>Global Change Biology</i> . 11: 1712-1719.
965	30.13	120.16	rice	1.22	5.57	12.22	2.05	27.92	25.70	714.00	781.50	375.00	0.36	Meswiny P. et al. (2005). Nonlinear response of N2O flux to incremental fertilizer addition in a continuous maize (Zea mays L.) cropping system. <i>Global Change Biology</i> . 11: 1712-1719.
966	30.13	120.16	rice	1.22	5.57	12.22	2.05	27.92	25.70	714.00	781.50	0.00	0.20	Meswiny P. et al. (2005). Nonlinear response of N2O flux to incremental fertilizer addition in a continuous maize (Zea mays L.) cropping system. <i>Global Change Biology</i> . 11: 1712-1719.
967	30.13	120.16	rice	1.22	5.57	12.22	2.05	27.92	25.70	714.00	781.50	75.00	0.23	Meswiny P. et al. (2005). Nonlinear response of N2O flux to incremental fertilizer addition in a continuous maize (Zea mays L.) cropping system. <i>Global Change Biology</i> . 11: 1712-1719.
968	30.13	120.16	rice	1.22	5.57	12.22	2.05	27.92	25.70	714.00	781.50	150.00	0.76	Meswiny P. et al. (2005). Nonlinear response of N2O flux to incremental fertilizer addition in a continuous maize (Zea mays L.) cropping system. <i>Global Change Biology</i> . 11: 1712-1719.
969	30.13	120.16	rice	1.22	5.57	12.22	2.05	27.92	25.70	714.00	781.50	225.00	0.44	Meswiny P. et al. (2005). Nonlinear response of N2O flux to incremental fertilizer addition in a continuous maize (Zea mays L.) cropping system. <i>Global Change Biology</i> . 11: 1712-1719.
970	30.13	120.16	rice	1.22	5.57	12.22	2.05	27.92	25.70	714.00	781.50	300.00	1.07	Meswiny P. et al. (2005). Nonlinear response of N2O flux to incremental fertilizer addition in a continuous maize (Zea mays L.) cropping system. <i>Global Change Biology</i> . 11: 1712-1719.
971	30.13	120.16	rice	1.22	5.57	12.22	2.05	27.92	25.70	714.00	781.50	375.00	1.13	Meswiny P. et al. (2005). Nonlinear response of N2O flux to incremental fertilizer addition in a continuous maize (Zea mays L.) cropping system. <i>Global Change Biology</i> . 11: 1712-1719.
972	28.58	113.33	rice	1.19	4.50	11.10	0.86	24.50	24.64	1066.65	495.45	0.00	7.10	Zou J. et al. (2005). Direct emission factor for N2O from rice-winter wheat rotation systems in southeast China. <i>Atmospheric Environment</i> . 39: 4755-4765.
973	28.58	113.33	rice	1.19	4.50	11.10	0.86	24.50	24.64	1066.65	495.45	450.00	17.20	Zou J. et al. (2005). Direct emission factor for N2O from rice-winter wheat rotation systems in southeast China. <i>Atmospheric Environment</i> . 39: 4755-4765.
974	28.58	113.33	rice	1.19	4.50	11.10	0.86	24.50	24.64	1066.65	495.45	450.00	16.70	Zou J. et al. (2005). Direct emission factor for N2O from rice-winter wheat rotation systems in southeast China. <i>Atmospheric Environment</i> . 39: 4755-4765.
975	36.15	117.15	rice	1.75	7.30	4.76	1.75	22.00	22.47	666.00	1072.80	0.00	0.03	Ding W. et al. (2007). Nitrous oxide emissions from an intensively cultivated maize-wheat rotation soil in the North China Plain. <i>Science of the Total Environment</i> . 373(2-3): 501-511.
976	36.15	117.15	rice	1.75	7.30	4.76	1.75	22.00	22.47	666.00	1072.80	100.00	0.18	Ding W. et al. (2007). Nitrous oxide emissions from an intensively cultivated maize-wheat rotation soil in the North China Plain. <i>Science of the Total Environment</i> . 373(2-3): 501-511.
977	36.15	117.15	rice	1.75	7.30	4.76	1.75	22.00	22.47	666.00	1072.80	200.00	0.26	Ding W. et al. (2007). Nitrous oxide emissions from an intensively cultivated maize-wheat rotation soil in the North China Plain. <i>Science of the Total Environment</i> . 373(2-3): 501-511.
978	36.15	117.15	rice	1.75	7.30	4.76	1.75	22.00	22.47	666.00	1072.80	300.00	0.34	Ding W. et al. (2007). Nitrous oxide emissions from an intensively cultivated maize-wheat rotation soil in the North China Plain. <i>Science of the Total Environment</i> . 373(2-3): 501-511.
979	36.15	117.15	rice	1.75	7.30	4.76	1.75	22.00	22.47	666.00	1072.80	400.00	0.40	Ding W. et al. (2007). Nitrous oxide emissions from an intensively cultivated maize-wheat rotation soil in the North China Plain. <i>Science of the Total Environment</i> . 373(2-3): 501-511.
980	36.15	117.15	rice	1.75	7.30	4.76	1.75	22.00	22.47	666.00	1072.80	500.00	0.43	Ding W. et al. (2007). Nitrous oxide emissions from an intensively cultivated maize-wheat rotation soil in the North China Plain. <i>Science of the Total Environment</i> . 373(2-3): 501-511.
981	36.15	117.15	rice	1.75	7.30	4.76	1.75	22.00	22.47	666.00	1072.80	600.00	0.26	Ding W. et al. (2007). Nitrous oxide emissions from an intensively cultivated maize-wheat rotation soil in the North China Plain. <i>Science of the Total Environment</i> . 373(2-3): 501-511.
982	36.15	117.15	rice	1.75	7.30	4.76	1.75	22.00	22.47	666.00	1072.80	700.00	0.33	Ding W. et al. (2007). Nitrous oxide emissions from an intensively cultivated maize-wheat rotation soil in the North China Plain. <i>Science of the Total Environment</i> . 373(2-3): 501-511.
983	25.99	119.63	rice	1.10	6.50	6.84	1.10	25.00	19.38	477.60	541.20	0.00	0.10	Zang A. et al. (2017). Contrasting effects of straw and straw-derived biochar application on net global warming potential in the Loess Plateau of China. <i>Field Crops Research</i> . 205: 45-54.
984	25.99	119.63	rice	1.10	6.50	6.84	1.10	25.00	19.38	477.60	541.20	95.00	0.48	Zang A. et al. (2017). Contrasting effects of straw and straw-derived biochar application on net global warming potential in the Loess Plateau of China. <i>Field Crops Research</i> . 205: 45-54.
985	25.99	119.63	rice	1.10	6.50	6.84	1.10	25.00	19.38	477.60	541.20	95.00	0.11	Zang A. et al. (2017). Contrasting effects of straw and straw-derived biochar application on net global warming potential in the Loess Plateau of China. <i>Field Crops Research</i> . 205: 45-54.
986	31.98	118.80	wheat	1.40	5.70	14.70	1.32	32.33	11.50	510.50	791.31	0.00	0.68	Li L. et al. (2015). Effects of biochar application on N <sub>2</sub> O and CH <sub>4</sub> in rice field at different periods. <i>Acta Pedologica Sinica</i> . 52(4).
987	31.98	118.80	wheat	1.40	5.70	14.70	1.32	32.33	11.50	510.50	791.31	250.00	4.45	Li L. et al. (2015). Effects of biochar application on N <sub>2</sub> O and CH <sub>4</sub> in rice field at different periods. <i>Acta Pedologica Sinica</i> . 52(4).
988	31.45	120.42	wheat	1.40	6.30	19.50	1.82	25.00	12.16	527.96	927.71	0.00	0.54	Zhang L. et al. (2015). Integrative effects of soil tillage and straw management on crop yields and greenhouse gas emissions in a rice-wheat cropping system. <i>European Journal of Agronomy</i> . 63: 47-54.
989	31.45	120.42	wheat	1.40	6.30	19.50	1.82	25.00	12.16	527.96	927.71	225.00	0.74	Zhang L. et al. (2015). Integrative effects of soil tillage and straw management on crop yields and greenhouse gas emissions in a rice-wheat cropping system. <i>European Journal of Agronomy</i> . 63: 47-54.
990	31.45	120.42	wheat	1.40	6.30	19.50	1.82	25.00	12.16	527.96	927.71	225.00	0.66	Zhang L. et al. (2015). Integrative effects of soil tillage and straw management on crop yields and greenhouse gas emissions in a rice-wheat cropping system. <i>European Journal of Agronomy</i> . 63: 47-54.
991	31.45	120.42	wheat	1.40	6.30	19.50	1.82	25.00	12.16	527.96	927.71	225.00	0.82	Zhang L. et al. (2015). Integrative effects of soil tillage and straw management on crop yields and greenhouse gas emissions in a rice-wheat cropping system. <i>European Journal of Agronomy</i> . 63: 47-54.
992	31.45	120.42	wheat	1.40	6.30	19.50	1.82	25.00	12.16	527.96	927.71	225.00	0.76	Zhang L. et al. (2015). Integrative effects of soil tillage and straw management on crop yields and greenhouse gas emissions in a rice-wheat cropping system. <i>European Journal of Agronomy</i> . 63: 47-54.
993	31.45	120.42	wheat	1.40	6.30	19.50	1.82	25.00	11.78	614.20	992.04	225.00	1.29	Zhang L. et al. (2015). Integrative effects of soil tillage and straw management on crop yields and greenhouse gas emissions in a rice-wheat cropping system. <i>European Journal of Agronomy</i> . 63: 47-54.
994	31.45	120.42	wheat	1.40	6.30	19.50	1.82	25.00	11.78	614.20	992.04	225.00	1.41	Zhang L. et al. (2015). Integrative effects of soil tillage and straw management on crop yields and greenhouse gas emissions in a rice-wheat cropping system. <i>European Journal of Agronomy</i> . 63: 47-54.
995	31.45	120.42	wheat	1.40	6.30	19.50	1.82	25.00	11.78	614.20	992.04	225.00	1.23	Zhang L. et al. (2015). Integrative effects of soil tillage and straw management on crop yields and greenhouse gas emissions in a rice-wheat cropping system. <i>European Journal of Agronomy</i> . 63: 47-54.
996	31.45	120.42	wheat	1.40	6.30	19.50	1.82	25.00	11.78	614.20	992.04	225.00	1.11	Zhang L. et al. (2015). Integrative effects of soil tillage and straw management on crop yields and greenhouse gas emissions in a rice-wheat cropping system. <i>European Journal of Agronomy</i> . 63: 47-54.
997	31.53	120.68	wheat	1.12	6.40	11.28	1.84	33.91	10.17	588.99	530.86	0.00	0.26	Xia L. et al. (2014). Effects of long-term straw incorporation on the net global warming potential and the net economic benefit in a rice-wheat cropping system in China. <i>Agriculture, Ecosystems &amp; Environment</i> . 197(1): 118-127.
998	31.53	120.68	wheat	1.12	6.40	11.28	1.84	33.91	10.17	588.99	530.86	180.00	1.34	Xia L. et al. (2014). Effects of long-term straw incorporation on the net global warming potential and the net economic benefit in a rice-wheat cropping system in China. <i>Agriculture, Ecosystems &amp; Environment</i> . 197(1): 118-127.
999	31.53	120.68	wheat	1.12	6.40	11.28	1.84	33.91	10.58	191.78	876.23	0.00	0.18	Xia L. et al. (2014). Effects of long-term straw incorporation on the net global warming potential and the net economic benefit in a rice-wheat cropping system in China. <i>Agriculture, Ecosystems &amp; Environment</i> . 197(1): 118-127.
1000	31.53	120.68	wheat	1.12	6.40	11.28	1.84	33.91	10.58	191.78	876.23	180.00	0.67	Xia L. et al. (2014). Effects of long-term straw incorporation on the net global warming potential and the net economic benefit in a rice-wheat cropping system in China. <i>Agriculture, Ecosystems &amp; Environment</i> . 197(1): 118-127.
1001	31.53	120.68	wheat	1.12	6.40	11.28	1.84	33.91	10.17	588.99	530.86	180.00	1.22	Xia L. et al. (2014). Effects of long-term straw incorporation on the net global warming potential and the net economic benefit in a rice-wheat cropping system in China. <i>Agriculture, Ecosystems &amp; Environment</i> . 197(1): 118-127.
1002	31.53	120.68	wheat	1.12	6.40	11.28	1.84	33.91	10.58	191.78	876.23	180.00	1.02	Xia L. et al. (2014). Effects of long-term straw incorporation on the net global warming potential and the net economic benefit in a rice-wheat cropping system in China. <i>Agriculture, Ecosystems &amp; Environment</i> . 197(1): 118-127.
1003	31.53	120.68	wheat	1.12	6.40	11.28	1.84	33.91	10.17	588.99	530.86	180.00	0.51	Xia L. et al. (2014). Effects of long-term straw incorporation on the net global warming potential and the net economic benefit in a rice-wheat cropping system in China. <i>Agriculture, Ecosystems &amp; Environment</i> . 197(1): 118-127.
1004	31.53	120.68	wheat	1.12	6.40	11.28	1.84	33.91	10.58	191.78	876.23	180.00	0.37	Xia L. et al. (2014). Effects of long-term straw incorporation on the net global warming potential and the net economic benefit in a rice-wheat cropping system in China. <i>Agriculture, Ecosystems &amp; Environment</i> . 197(1): 118-127.
1005	29.85	115.55	wheat	1.21	4.79	16.89	2.20	21.00	11.93	874.77	699.77	144.00	2.24	Zhang Z. et al. (2015). Effects of tillage practices and straw returning methods on greenhouse gas emissions and net ecosystem economic budget in rice/wheat cropping systems in central China. <i>Atmospheric Environment</i> . 122: 636-644.
1006	29.85	115.55	wheat	1.21	4.79	16.89	2.20	21.00	11.93	874.77	699.77	144.00	2.04	Zhang Z. et al. (2015). Effects of tillage practices and straw returning methods on greenhouse gas emissions and net ecosystem economic budget in rice/wheat cropping systems in central China. <i>Atmospheric Environment</i> . 122: 636-644.
1007	29.85	115.55	wheat	1.21	4.79	16.89	2.20	21.00	11.93	874.77	699.77	144.00	1.67	Zhang Z. et al. (2015). Effects of tillage practices and straw returning methods on greenhouse gas emissions and net ecosystem economic budget in rice/wheat cropping systems in central China. <i>Atmospheric Environment</i> . 122: 636-644.
1008	29.85	115.55	wheat	1.21	4.79	16.89	2.20	21.00	11.93	874.77	699.77	144.00	2.01	Zhang Z. et al. (2015). Effects of tillage practices and straw returning methods on greenhouse gas emissions and net ecosystem economic budget in rice/wheat cropping systems in central China. <i>Atmospheric Environment</i> . 122: 636-644.
1009	29.85	115.55	wheat	1.21	4.79	16.89	2.20	21.00	11.93	874.77	699.77	144.00	2.01	Zhang Z. et al. (2015). Effects of tillage practices and straw returning methods on greenhouse gas emissions and net ecosystem economic budget in rice/wheat cropping systems in central China. <i>Atmospheric Environment</i> . 122: 636-644.
1010	31.53	120.92	wheat	1.20	7.60	11.60	2.30	14.32	11.14	445.44	801.35	0.00	1.16	Yang B. et al. (2015). Mitigating net global warming potential and greenhouse gas intensities by substituting chemical nitrogen fertilizers with organic fertilization strategies in rice-wheat annual rotation systems in China: A 3-year field experiment. <i>Ecological Engineering</i> . 81: 289-297.
1011	31.53	120.92	wheat	1.20	7.60	11.60	2.30	14.32	11.14	445.44	801.35	240.00	1.87	Yang B. et al. (2015). Mitigating net global warming potential and greenhouse gas intensities by substituting chemical nitrogen fertilizers with organic fertilization strategies in rice-wheat annual rotation systems in China: A 3-year field experiment. <i>Ecological Engineering</i> . 81: 289-297.
1012	31.53	120.92	wheat	1.20	7.60	11.60	2.30	14.32	11.14	445.44	801.35	120.00	2.40	Yang B. et al. (2015). Mitigating net global warming potential and greenhouse gas intensities by substituting chemical nitrogen fertilizers with organic fertilization strategies in rice-wheat annual rotation systems in China: A 3-year field experiment. <i>Ecological Engineering</i> . 81: 289-297.
1013	31.53	120.92	wheat	1.20	7.60	11.60	2.30	14.32	11.14	445.44	801.35	81.60	2.10	Yang B. et al. (2015). Mitigating net global warming potential and greenhouse gas intensities by substituting chemical nitrogen fertilizers with organic fertilization strategies in rice-wheat annual rotation systems in China: A 3-year field experiment. <i>Ecological Engineering</i> . 81: 289-297.
1014	33.00	119.00	wheat	1.40	7.47	14.36	0.87	25.00	12.27	644.49	904.92	0.00	0.1	

1051	36.87	115.17	wheat	1.32	8.24	9.06	0.90	32.29	9.30	140.78	1063.57	200.00	0.83	Hu X. et al. (2011). Effects of nitrogen fertilizer management on CH4 and N2O emission from summer maize soil. (In Chinese with English abstract). <i>Scientia Sinica(Chimica)</i> , 41(1): 117-128
1052	36.87	115.17	wheat	1.32	8.24	9.06	0.90	32.29	9.30	140.78	1063.57	200.00	0.85	Hu X. et al. (2011). Effects of nitrogen fertilizer management on CH4 and N2O emission from summer maize soil. (In Chinese with English abstract). <i>Scientia Sinica(Chimica)</i> , 41(1): 117-128
1053	36.87	115.17	wheat	1.32	8.24	9.06	0.90	32.29	9.30	140.78	1063.57	200.00	1.06	Hu X. et al. (2011). Effects of nitrogen fertilizer management on CH4 and N2O emission from summer maize soil. (In Chinese with English abstract). <i>Scientia Sinica(Chimica)</i> , 41(1): 117-128
1054	36.87	115.17	wheat	1.32	8.24	9.06	0.90	32.29	9.30	140.78	1063.57	200.00	0.44	Hu X. et al. (2011). Effects of nitrogen fertilizer management on CH4 and N2O emission from summer maize soil. (In Chinese with English abstract). <i>Scientia Sinica(Chimica)</i> , 41(1): 117-128
1055	35.20	107.67	wheat	1.40	8.20	19.25	0.97	44.00	9.82	144.46	809.21	165.00	0.78	Liang D. (2003). Nitrous oxide losses of nitrogen fertilizer and influential factors on loss soil. (In Chinese with English abstract). Doctor dissertation of Northwest Agriculture & Forestry University (Shanxi, China)
1056	35.20	107.67	wheat	1.40	8.20	19.25	1.18	44.00	9.82	144.46	809.21	165.00	2.90	Liang D. (2003). Nitrous oxide losses of nitrogen fertilizer and influential factors on loss soil. (In Chinese with English abstract). Doctor dissertation of Northwest Agriculture & Forestry University (Shanxi, China)
1057	35.20	107.67	wheat	1.40	8.20	19.25	1.39	44.00	9.82	144.46	809.21	165.00	4.10	Liang D. (2003). Nitrous oxide losses of nitrogen fertilizer and influential factors on loss soil. (In Chinese with English abstract). Doctor dissertation of Northwest Agriculture & Forestry University (Shanxi, China)
1058	38.13	115.07	wheat	1.30	8.60	16.89	1.00	11.00	9.85	219.21	1010.47	0.00	0.13	Ma L. et al. (2012). Ammonia volatilization in wheat-maize rotation system by nitrogen application level and nitrous oxide emissions. (In Chinese with English abstract). <i>Ecology and Environmental Sciences</i> , 21(2): 225-230
1059	38.13	115.07	wheat	1.30	8.60	16.89	1.00	11.00	9.85	219.21	1010.47	75.00	0.14	Ma L. et al. (2012). Ammonia volatilization in wheat-maize rotation system by nitrogen application level and nitrous oxide emissions. (In Chinese with English abstract). <i>Ecology and Environmental Sciences</i> , 21(2): 225-230
1060	38.13	115.07	wheat	1.30	8.60	16.89	1.00	11.00	9.85	219.21	1010.47	225.00	0.25	Ma L. et al. (2012). Ammonia volatilization in wheat-maize rotation system by nitrogen application level and nitrous oxide emissions. (In Chinese with English abstract). <i>Ecology and Environmental Sciences</i> , 21(2): 225-230
1061	38.13	115.07	wheat	1.30	8.60	16.89	1.00	11.00	9.85	219.21	1010.47	1500.00	0.16	Ma L. et al. (2012). Ammonia volatilization in wheat-maize rotation system by nitrogen application level and nitrous oxide emissions. (In Chinese with English abstract). <i>Ecology and Environmental Sciences</i> , 21(2): 225-230
1062	36.87	118.17	wheat	1.51	8.10	16.89	1.52	29.50	11.58	223.35	1236.77	0.00	0.54	Pan Z. et al. (2004). Effects of different straw returning modes and nitrogen application rates on soil N2O emission. (In Chinese with English abstract). <i>Soil Fertilizer Science</i> , 05: 0006-03
1063	36.87	118.17	wheat	1.51	8.10	16.89	1.52	29.50	11.58	223.35	1236.77	100.00	0.86	Pan Z. et al. (2004). Effects of different straw returning modes and nitrogen application rates on soil N2O emission. (In Chinese with English abstract). <i>Soil Fertilizer Science</i> , 05: 0006-03
1064	36.87	118.17	wheat	1.51	8.10	16.89	1.52	29.50	11.58	223.35	1236.77	200.00	0.59	Pan Z. et al. (2004). Effects of different straw returning modes and nitrogen application rates on soil N2O emission. (In Chinese with English abstract). <i>Soil Fertilizer Science</i> , 05: 0006-03
1065	36.87	118.17	wheat	1.51	8.10	16.89	1.52	29.50	11.58	223.35	1236.77	100.00	5.65	Pan Z. et al. (2004). Effects of different straw returning modes and nitrogen application rates on soil N2O emission. (In Chinese with English abstract). <i>Soil Fertilizer Science</i> , 05: 0006-03
1066	35.20	107.67	wheat	1.38	8.30	19.25	0.57	38.80	7.34	226.94	662.15	0.00	0.19	Shi P et al. (2011). Effects of long-term application of fertilization on wheat yield and emission of the CO2 and N2O from soil in loess plateau. (In Chinese with English abstract). Doctor dissertation of Northwest Agriculture & Forestry University (Shanxi, China)
1067	35.20	107.67	wheat	1.38	8.30	19.25	0.57	38.80	7.34	226.94	662.15	120.00	0.46	Shi P et al. (2011). Effects of long-term application of fertilization on wheat yield and emission of the CO2 and N2O from soil in loess plateau. (In Chinese with English abstract). Doctor dissertation of Northwest Agriculture & Forestry University (Shanxi, China)
1068	35.20	107.67	wheat	1.38	8.30	19.25	0.57	38.80	7.34	226.94	662.15	120.00	0.52	Shi P et al. (2011). Effects of long-term application of fertilization on wheat yield and emission of the CO2 and N2O from soil in loess plateau. (In Chinese with English abstract). Doctor dissertation of Northwest Agriculture & Forestry University (Shanxi, China)
1069	35.20	107.67	wheat	1.38	8.30	19.25	0.57	38.80	7.34	226.94	662.15	0.00	0.21	Shi P et al. (2011). Effects of long-term application of fertilization on wheat yield and emission of the CO2 and N2O from soil in loess plateau. (In Chinese with English abstract). Doctor dissertation of Northwest Agriculture & Forestry University (Shanxi, China)
1070	35.20	107.67	wheat	1.38	8.30	19.25	0.57	38.80	7.34	226.94	662.15	120.00	0.61	Shi P et al. (2011). Effects of long-term application of fertilization on wheat yield and emission of the CO2 and N2O from soil in loess plateau. (In Chinese with English abstract). Doctor dissertation of Northwest Agriculture & Forestry University (Shanxi, China)
1071	38.02	115.53	wheat	1.40	8.00	9.06	0.94	47.67	10.12	290.97	1027.19	0.00	0.67	Wang X. et al. (2009). Effect of optimized nitrogen application on denitrification losses and N2O emissions from soil in winter wheat/summer corn rotation system in north China. (In Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> , 15(1): 48-54
1072	38.02	115.53	wheat	1.40	8.00	9.06	0.94	47.67	10.12	290.97	1027.19	210.00	1.40	Wang X. et al. (2009). Effect of optimized nitrogen application on denitrification losses and N2O emissions from soil in winter wheat/summer corn rotation system in north China. (In Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> , 15(1): 48-54
1073	38.02	115.53	wheat	1.40	8.00	9.06	0.94	47.67	10.12	290.97	1027.19	300.00	1.67	Wang X. et al. (2009). Effect of optimized nitrogen application on denitrification losses and N2O emissions from soil in winter wheat/summer corn rotation system in north China. (In Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> , 15(1): 48-54
1074	38.02	115.53	wheat	1.40	8.00	9.06	0.94	47.67	10.12	290.97	1027.19	2100.00	1.27	Wang X. et al. (2009). Effect of optimized nitrogen application on denitrification losses and N2O emissions from soil in winter wheat/summer corn rotation system in north China. (In Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> , 15(1): 48-54
1075	31.97	119.30	wheat	1.39	6.00	14.36	1.70	44.00	13.31	510.04	910.96	100.00	2.96	Ji Y. et al. (2012). Effect of controlled release fertilizer on nitrous oxide emission from a winter wheat field. <i>Original Article</i> , 94: 111-122
1076	31.97	119.30	wheat	1.39	6.00	14.36	1.70	44.00	13.31	510.04	910.96	100.00	2.96	Ji Y. et al. (2012). Effect of controlled release fertilizer on nitrous oxide emission from a winter wheat field. <i>Original Article</i> , 94: 111-122
1077	31.97	119.30	wheat	1.39	6.00	14.36	1.70	44.00	13.31	510.04	910.96	200.00	3.93	Ji Y. et al. (2012). Effect of controlled release fertilizer on nitrous oxide emission from a winter wheat field. <i>Original Article</i> , 94: 111-122
1078	31.97	119.30	wheat	1.39	6.00	14.36	1.70	44.00	13.31	510.04	910.96	200.00	0.35	Ji Y. et al. (2012). Effect of controlled release fertilizer on nitrous oxide emission from a winter wheat field. <i>Original Article</i> , 94: 111-122
1079	31.97	119.30	wheat	1.39	6.00	14.36	1.70	44.00	13.31	510.04	910.96	200.00	0.93	Ji Y. et al. (2012). Effect of controlled release fertilizer on nitrous oxide emission from a winter wheat field. <i>Original Article</i> , 94: 111-122
1080	31.97	119.30	wheat	1.39	6.00	14.36	1.70	44.00	13.31	510.04	910.96	200.00	1.39	Ji Y. et al. (2012). Effect of controlled release fertilizer on nitrous oxide emission from a winter wheat field. <i>Original Article</i> , 94: 111-122
1081	31.97	119.30	wheat	1.39	6.00	14.36	1.70	44.00	13.31	510.04	910.96	270.00	2.17	Ji Y. et al. (2012). Effect of controlled release fertilizer on nitrous oxide emission from a winter wheat field. <i>Original Article</i> , 94: 111-122
1082	32.00	118.80	wheat	1.23	6.10	10.50	1.10	32.33	12.05	407.79	663.66	0.00	2.60	Chen S. et al. (2008). Relationship between nitrous oxide emission and winter wheat production. <i>Biology and Fertility of Soils</i> , 44(7):985-989
1083	32.00	118.80	wheat	1.23	6.10	10.50	1.10	32.33	12.05	407.79	663.66	100.00	5.57	Chen S. et al. (2008). Relationship between nitrous oxide emission and winter wheat production. <i>Biology and Fertility of Soils</i> , 44(7):985-989
1084	32.00	118.80	wheat	1.23	6.10	10.50	1.10	32.33	12.05	407.79	663.66	300.00	7.74	Chen S. et al. (2008). Relationship between nitrous oxide emission and winter wheat production. <i>Biology and Fertility of Soils</i> , 44(7):985-989
1085	32.00	118.80	wheat	1.23	6.10	10.50	1.10	32.33	12.05	407.79	663.66	200.00	7.54	Chen S. et al. (2008). Relationship between nitrous oxide emission and winter wheat production. <i>Biology and Fertility of Soils</i> , 44(7):985-989
1086	32.00	118.80	wheat	1.23	6.10	10.50	1.10	32.33	12.05	407.79	663.66	0.00	3.67	Chen S. et al. (2008). Relationship between nitrous oxide emission and winter wheat production. <i>Biology and Fertility of Soils</i> , 44(7):985-989
1087	32.00	118.80	wheat	1.23	6.10	10.50	1.10	32.33	12.05	407.79	663.66	6.45	Chen S. et al. (2008). Relationship between nitrous oxide emission and winter wheat production. <i>Biology and Fertility of Soils</i> , 44(7):985-989	
1088	32.00	118.80	wheat	1.23	6.10	10.50	1.10	32.33	12.05	407.79	663.66	200.00	6.52	Chen S. et al. (2008). Relationship between nitrous oxide emission and winter wheat production. <i>Biology and Fertility of Soils</i> , 44(7):985-989
1089	32.00	118.80	wheat	1.23	6.10	10.50	1.10	32.33	12.05	407.79	663.66	200.00	6.90	Chen S. et al. (2008). Relationship between nitrous oxide emission and winter wheat production. <i>Biology and Fertility of Soils</i> , 44(7):985-989
1090	32.00	118.80	wheat	1.23	6.10	10.50	1.10	32.33	12.05	407.79	663.66	200.00	6.82	Chen S. et al. (2008). Relationship between nitrous oxide emission and winter wheat production. <i>Biology and Fertility of Soils</i> , 44(7):985-989
1091	32.00	118.80	wheat	1.23	6.10	10.50	1.10	32.33	12.05	407.79	663.66	0.00	4.35	Chen S. et al. (2008). Relationship between nitrous oxide emission and winter wheat production. <i>Biology and Fertility of Soils</i> , 44(7):985-989
1092	32.00	118.80	wheat	1.23	6.10	10.50	1.10	32.33	12.05	407.79	663.66	180.00	8.51	Chen S. et al. (2008). Relationship between nitrous oxide emission and winter wheat production. <i>Biology and Fertility of Soils</i> , 44(7):985-989
1093	32.00	118.80	wheat	1.23	6.10	10.50	1.10	32.33	12.05	407.79	663.66	180.00	8.55	Chen S. et al. (2008). Relationship between nitrous oxide emission and winter wheat production. <i>Biology and Fertility of Soils</i> , 44(7):985-989
1094	32.00	118.80	wheat	1.23	6.10	10.50	1.10	32.33	12.05	407.79	663.66	180.00	9.29	Chen S. et al. (2008). Relationship between nitrous oxide emission and winter wheat production. <i>Biology and Fertility of Soils</i> , 44(7):985-989
1095	32.00	118.80	wheat	1.23	6.10	10.50	1.10	32.33	12.05	407.79	663.66	180.00	8.33	Chen S. et al. (2008). Relationship between nitrous oxide emission and winter wheat production. <i>Biology and Fertility of Soils</i> , 44(7):985-989
1096	32.00	118.80	wheat	1.23	6.10	10.50	1.10	32.33	12.05	407.79	663.66	180.00	8.19	Chen S. et al. (2008). Relationship between nitrous oxide emission and winter wheat production. <i>Biology and Fertility of Soils</i> , 44(7):985-989
1097	32.00	118.80	wheat	1.23	6.10	10.50	1.10	32.33	12.05	407.79	663.66	150.00	5.97	Chen S. et al. (2008). Relationship between nitrous oxide emission and winter wheat production. <i>Biology and Fertility of Soils</i> , 44(7):985-989
1098	32.00	118.80	wheat	1.23	6.10	10.50	1.10	32.33	12.05	407.79	663.66	225.00	7.44	Chen S. et al. (2008). Relationship between nitrous oxide emission and winter wheat production. <i>Biology and Fertility of Soils</i> , 44(7):985-989
1099	31.98	119.30	wheat	1.39	6.00	14.36	1.10	44.00	11.61	692.60	694.73	0.00	0.35	Ji Y. et al. (2012). Effect of controlled-release fertilizer (CRF) on nitrous oxide emission during the wheat growing period. (In Chinese with English abstract). <i>Acta Pedologica Sinica</i> , 49(3):526-534
1100	31.98	119.30	wheat	1.39	6.00	14.36	1.10	44.00	11.61	692.60	694.73	100.00	0.93	Ji Y. et al. (2012). Effect of controlled-release fertilizer (CRF) on nitrous oxide emission during the wheat growing period. (In Chinese with English abstract). <i>Acta Pedologica Sinica</i> , 49(3):526-534
1101	31.98	119.30	wheat	1.39	6.00	14.36	1.10	44.00	11.61	692.60	694.73	200.00	1.39	Ji Y. et al. (2012). Effect of controlled-release fertilizer (CRF) on nitrous oxide emission during the wheat growing period. (In Chinese with English abstract). <i>Acta Pedologica Sinica</i> , 49(3):526-534
1102	31.98	119.30	wheat	1.39	6.00	14.36	1.10	44.00	11.61	692.60	694.73	270.00	2.18	Ji Y. et al. (2012). Effect of controlled-release fertilizer (CRF) on nitrous oxide emission during the wheat growing period. (In Chinese with English abstract). <i>Acta Pedologica Sinica</i> , 49(3):526-534
1103	36.98	117.99	wheat	1.50	8.10	16.89	0.84	29.50	8.91	121.73	733.43	0.00	0.30	Tan Y. C. et al. (2016). Effect of farmland management on N2O and CH4 emission from winter wheat-summer maize rotation system in North China Plain. (In Chinese with English abstract). <i>Acta Scientiae Circumstantiae</i> , 36(7):2638-2649
1104	36.98	117.99	wheat	1.50	8.10	16.89	0.84	29.50	8.91	121.73	733.43	225.00	1.20	Tan Y. C. et al. (2016). Effect of farmland management on N2O and CH4 emission from winter wheat-summer maize rotation system in North China Plain. (In Chinese with English abstract). <i>Acta Scientiae Circumstantiae</i> , 36(7):2638-2649
1105	36.98	117.99	wheat	1.50	8.10	16.89	0.84	29.50	8.91	121.73	733.43	345.00	1.40	Tan Y. C. et al. (2016). Effect of farmland management on N2O and CH4 emission from winter wheat-summer maize rotation system in North China Plain. (In Chinese with English abstract). <i>Acta Scientiae Circumstantiae</i> , 36(7):2638-2649
1106	36.98	117.99	wheat	1.50	8.10	16.89	0.84	29.50	8.91	121.73	733.43	0.00	0.40	Tan Y. C. et al. (2016). Effect of farmland management on N2O and CH4 emission from winter wheat-summer maize rotation system in North China Plain. (In Chinese with English abstract). <i>Acta Scientiae Circumstantiae</i> , 36(7):2638-2649
1107	36.98	117.99	wheat	1.5										





1339	36.15	117.15	wheat	1.43	7.40	16.89	1.23	30.71	9.72	305.10	1206.90	300.00	1.74	Cui Z.Y. et al. (2016). Research on soil N2O emission from winter wheat and nitrogen residual effects of wheat on maize season. (in Chinese with English abstract). Shandong Agricultural University. (Taian, China)
1340	36.15	117.15	wheat	1.43	7.40	16.89	1.23	30.71	11.17	305.10	1082.70	0.00	0.92	Cui Z.Y. et al. (2016). Research on soil N2O emission from winter wheat and nitrogen residual effects of wheat on maize season. (in Chinese with English abstract). Shandong Agricultural University. (Taian, China)
1341	36.15	117.15	wheat	1.43	7.40	16.89	1.23	30.71	11.17	305.10	1082.70	120.00	1.57	Cui Z.Y. et al. (2016). Research on soil N2O emission from winter wheat and nitrogen residual effects of wheat on maize season. (in Chinese with English abstract). Shandong Agricultural University. (Taian, China)
1342	36.15	117.15	wheat	1.43	7.40	16.89	1.23	30.71	11.17	305.10	1082.70	180.00	1.63	Cui Z.Y. et al. (2016). Research on soil N2O emission from winter wheat and nitrogen residual effects of wheat on maize season. (in Chinese with English abstract). Shandong Agricultural University. (Taian, China)
1343	36.15	117.15	wheat	1.43	7.40	16.89	1.23	30.71	11.17	305.10	1082.70	240.00	1.69	Cui Z.Y. et al. (2016). Research on soil N2O emission from winter wheat and nitrogen residual effects of wheat on maize season. (in Chinese with English abstract). Shandong Agricultural University. (Taian, China)
1344	36.15	117.15	wheat	1.43	7.40	16.89	1.23	30.71	11.17	305.10	1082.70	300.00	1.76	Cui Z.Y. et al. (2016). Research on soil N2O emission from winter wheat and nitrogen residual effects of wheat on maize season. (in Chinese with English abstract). Shandong Agricultural University. (Taian, China)
1345	36.65	117.12	wheat	1.45	7.80	10.54	0.08	29.90	9.81	175.50	1107.00	0.00	0.92	Tan D.S. et al. (2016). Effect of controlled-release nitrogen fertilizer on crop regulation and nutrient utilization of winter wheat. (in Chinese with English abstract). Journal of Triticeae Crops. 36(11):1523-1531.
1346	36.65	117.12	wheat	1.45	7.80	10.54	0.08	29.90	9.81	175.50	1107.00	210.00	1.64	Tan D.S. et al. (2016). Effect of controlled-release nitrogen fertilizer on crop regulation and nutrient utilization of winter wheat. (in Chinese with English abstract). Journal of Triticeae Crops. 36(11):1523-1531.
1347	36.65	117.12	wheat	1.45	7.80	10.54	0.08	29.90	9.81	175.50	1107.00	255.00	1.74	Tan D.S. et al. (2016). Effect of controlled-release nitrogen fertilizer on crop regulation and nutrient utilization of winter wheat. (in Chinese with English abstract). Journal of Triticeae Crops. 36(11):1523-1531.
1348	36.65	117.12	wheat	1.45	7.80	10.54	0.08	29.90	9.81	175.50	1107.00	300.00	1.55	Tan D.S. et al. (2016). Effect of controlled-release nitrogen fertilizer on crop regulation and nutrient utilization of winter wheat. (in Chinese with English abstract). Journal of Triticeae Crops. 36(11):1523-1531.
1349	31.55	120.62	wheat	1.48	5.40	11.28	0.75	12.00	13.43	686.40	1053.60	0.00	0.26	Zhou F. et al. (2017). Effect of biochar on CH4 and N2O emissions from Lou soil. (in Chinese with English abstract). Environmental Science. 38(9):3831-3839.
1350	31.55	120.62	wheat	1.48	5.40	11.28	0.75	12.00	13.43	686.40	1053.60	21.00	0.07	Zhou F. et al. (2017). Effect of biochar on CH4 and N2O emissions from Lou soil. (in Chinese with English abstract). Environmental Science. 38(9):3831-3839.
1351	31.55	120.62	wheat	1.48	5.40	11.28	0.75	12.00	13.43	686.40	1053.60	21.00	1.53	Zhou F. et al. (2017). Effect of biochar on CH4 and N2O emissions from Lou soil. (in Chinese with English abstract). Environmental Science. 38(9):3831-3839.
1352	31.28	119.90	wheat	1.28	6.25	14.56	1.56	36.06	13.00	708.00	964.80	0.00	0.54	Sun H.J. et al. (2017). Effects of nitrification inhibitor application on wheat grain yield, N2O emission and NH3 volatilization. (in Chinese with English abstract). Chinese Journal of Soil Science. 49(5):876-881.
1353	31.28	119.90	wheat	1.28	6.25	14.56	1.56	36.06	13.00	708.00	964.80	140.00	2.37	Sun H.J. et al. (2017). Effects of nitrification inhibitor application on wheat grain yield, N2O emission and NH3 volatilization. (in Chinese with English abstract). Chinese Journal of Soil Science. 49(5):876-881.
1354	31.28	119.90	wheat	1.28	6.25	14.56	1.56	36.06	13.00	708.00	964.80	180.00	3.64	Sun H.J. et al. (2017). Effects of nitrification inhibitor application on wheat grain yield, N2O emission and NH3 volatilization. (in Chinese with English abstract). Chinese Journal of Soil Science. 49(5):876-881.
1355	38.15	115.31	wheat	1.51	7.70	9.06	1.44	19.63	9.57	129.60	899.10	0.00	0.52	Wang X.F. et al. (2017). Effects of biochar slurry irrigation on CO2 and N2O emission from winter wheat-summer maize rotation farmland. (in Chinese with English abstract). Journal of Agro-Environment Science. 2017, 36(4):783-792.
1356	38.15	115.31	wheat	1.51	7.70	9.06	1.44	19.63	9.57	129.60	899.10	30.00	0.84	Wang X.F. et al. (2017). Effects of biochar slurry irrigation on CO2 and N2O emission from winter wheat-summer maize rotation farmland. (in Chinese with English abstract). Journal of Agro-Environment Science. 2017, 36(4):783-792.
1357	38.15	115.31	wheat	1.51	7.70	9.06	1.44	19.63	9.57	129.60	899.10	105.00	0.84	Wang X.F. et al. (2017). Effects of biochar slurry irrigation on CO2 and N2O emission from winter wheat-summer maize rotation farmland. (in Chinese with English abstract). Journal of Agro-Environment Science. 2017, 36(4):783-792.
1358	38.15	115.31	wheat	1.51	7.70	9.06	1.44	19.63	9.57	129.60	899.10	210.00	0.92	Wang X.F. et al. (2017). Effects of biochar slurry irrigation on CO2 and N2O emission from winter wheat-summer maize rotation farmland. (in Chinese with English abstract). Journal of Agro-Environment Science. 2017, 36(4):783-792.
1359	38.15	115.31	wheat	1.51	7.70	9.06	1.44	19.63	9.57	129.60	899.10	317.00	0.88	Wang X.F. et al. (2017). Effects of biochar slurry irrigation on CO2 and N2O emission from winter wheat-summer maize rotation farmland. (in Chinese with English abstract). Journal of Agro-Environment Science. 2017, 36(4):783-792.
1360	34.28	108.00	wheat	1.40	7.90	18.56	0.90	17.50	10.59	378.00	861.30	0.00	0.10	Hao Y.X. et al. (2017). Effects of long-term organic amendments on soil N2O emissions from winter wheat-maize cropping systems in the Guanzhong Plain. (in Chinese with English abstract). Environmental Science. 38(6):2586-2593.
1361	34.28	108.00	wheat	1.40	7.90	18.56	0.90	17.50	10.59	378.00	861.30	165.00	0.60	Hao Y.X. et al. (2017). Effects of long-term organic amendments on soil N2O emissions from winter wheat-maize cropping systems in the Guanzhong Plain. (in Chinese with English abstract). Environmental Science. 38(6):2586-2593.
1362	34.28	108.00	wheat	1.40	7.90	18.56	0.90	17.50	10.59	378.00	861.30	330.00	1.40	Hao Y.X. et al. (2017). Effects of long-term organic amendments on soil N2O emissions from winter wheat-maize cropping systems in the Guanzhong Plain. (in Chinese with English abstract). Environmental Science. 38(6):2586-2593.
1363	34.28	108.00	wheat	1.40	7.90	18.56	0.90	17.50	10.59	378.00	861.30	495.00	1.40	Hao Y.X. et al. (2017). Effects of long-term organic amendments on soil N2O emissions from winter wheat-maize cropping systems in the Guanzhong Plain. (in Chinese with English abstract). Environmental Science. 38(6):2586-2593.
1364	34.28	108.00	wheat	1.21	7.44	18.56	0.93	32.00	10.59	378.00	861.30	0.00	0.12	Hun Y.M. et al. (2017). Coupled effects of straw and nitrogen management on N2O and CH4 emissions of rainfed agriculture in Northwest China. Atmospheric Environment. 157:156-166.
1365	34.28	108.00	wheat	1.21	7.44	18.56	0.93	32.00	10.59	378.00	861.30	220.00	0.36	Hun Y.M. et al. (2017). Coupled effects of straw and nitrogen management on N2O and CH4 emissions of rainfed agriculture in Northwest China. Atmospheric Environment. 157:156-166.
1366	34.28	108.00	wheat	1.21	7.44	18.56	0.93	32.00	10.59	378.00	861.30	220.00	1.01	Hun Y.M. et al. (2017). Coupled effects of straw and nitrogen management on N2O and CH4 emissions of rainfed agriculture in Northwest China. Atmospheric Environment. 157:156-166.
1367	34.28	108.00	wheat	1.21	7.44	18.56	0.93	32.00	10.59	378.00	861.30	150.00	0.74	Hun Y.M. et al. (2017). Coupled effects of straw and nitrogen management on N2O and CH4 emissions of rainfed agriculture in Northwest China. Atmospheric Environment. 157:156-166.
1368	34.28	108.00	wheat	1.21	7.44	18.56	0.93	32.00	10.59	378.00	861.30	150.00	0.41	Hun Y.M. et al. (2017). Coupled effects of straw and nitrogen management on N2O and CH4 emissions of rainfed agriculture in Northwest China. Atmospheric Environment. 157:156-166.
1369	34.12	108.40	wheat	1.37	8.20	14.56	0.95	17.00	10.55	299.70	861.30	0.00	0.07	Chen H. et al. (2017). Effects of straw and plastic film mulching on greenhouse gas emissions in Loess Plateau, China: A field study of 2 consecutive wheat-maize rotation cycles. Science of The Total Environment. 579: 814-824.
1370	34.12	108.40	wheat	1.37	8.20	14.56	0.95	17.00	10.55	299.70	861.30	150.00	0.90	Chen H. et al. (2017). Effects of straw and plastic film mulching on greenhouse gas emissions in Loess Plateau, China: A field study of 2 consecutive wheat-maize rotation cycles. Science of The Total Environment. 579: 814-824.
1371	34.12	108.40	wheat	1.37	8.20	14.56	0.95	17.00	10.55	299.70	861.30	150.00	0.78	Chen H. et al. (2017). Effects of straw and plastic film mulching on greenhouse gas emissions in Loess Plateau, China: A field study of 2 consecutive wheat-maize rotation cycles. Science of The Total Environment. 579: 814-824.
1372	34.12	108.40	wheat	1.37	8.20	14.56	0.95	17.00	10.55	299.70	861.30	150.00	0.60	Chen H. et al. (2017). Effects of straw and plastic film mulching on greenhouse gas emissions in Loess Plateau, China: A field study of 2 consecutive wheat-maize rotation cycles. Science of The Total Environment. 579: 814-824.
1373	34.12	108.40	wheat	1.37	8.20	14.56	0.95	17.00	10.55	299.70	861.30	150.00	0.95	Chen H. et al. (2017). Effects of straw and plastic film mulching on greenhouse gas emissions in Loess Plateau, China: A field study of 2 consecutive wheat-maize rotation cycles. Science of The Total Environment. 579: 814-824.
1374	34.12	108.40	wheat	1.37	8.20	14.56	0.95	17.00	10.55	299.70	861.30	150.00	0.79	Chen H. et al. (2017). Effects of straw and plastic film mulching on greenhouse gas emissions in Loess Plateau, China: A field study of 2 consecutive wheat-maize rotation cycles. Science of The Total Environment. 579: 814-824.
1375	34.12	108.40	wheat	1.37	8.20	14.56	0.95	17.00	10.55	299.70	861.30	150.00	1.05	Chen H. et al. (2017). Effects of straw and plastic film mulching on greenhouse gas emissions in Loess Plateau, China: A field study of 2 consecutive wheat-maize rotation cycles. Science of The Total Environment. 579: 814-824.
1376	31.55	120.70	wheat	1.40	6.05	16.13	1.81	12.10	16.10	465.00	816.00	0.00	0.24	Zhao X. et al. (2009). Nitrogen fate and environmental consequence in paddy soil under rice-wheat rotation in the Taihu lake region, China. Plant and Soil. 319: 225-234.
1377	31.55	120.70	wheat	1.40	6.05	16.13	1.81	12.10	16.10	465.00	816.00	100.00	0.40	Zhao X. et al. (2009). Nitrogen fate and environmental consequence in paddy soil under rice-wheat rotation in the Taihu lake region, China. Plant and Soil. 319: 225-234.
1378	31.55	120.70	wheat	1.40	6.05	16.13	1.81	12.10	16.10	465.00	816.00	250.00	0.63	Zhao X. et al. (2009). Nitrogen fate and environmental consequence in paddy soil under rice-wheat rotation in the Taihu lake region, China. Plant and Soil. 319: 225-234.
1379	34.93	110.72	wheat	1.17	8.70	11.30	1.10	31.80	10.08	226.80	985.50	0.00	0.10	Liu C. et al. (2012). Responses of N2O and CH4 fluxes to fertilizer nitrogen addition rates in an irrigated wheat-maize cropping system in northern China. Biogeochemistry. 9: 839-850.
1380	34.93	110.72	wheat	1.17	8.70	11.30	1.10	31.80	10.08	226.80	985.50	60.00	0.48	Liu C. et al. (2012). Responses of N2O and CH4 fluxes to fertilizer nitrogen addition rates in an irrigated wheat-maize cropping system in northern China. Biogeochemistry. 9: 839-850.
1381	34.93	110.72	wheat	1.17	8.70	11.30	1.10	31.80	10.08	226.80	985.50	120.00	0.59	Liu C. et al. (2012). Responses of N2O and CH4 fluxes to fertilizer nitrogen addition rates in an irrigated wheat-maize cropping system in northern China. Biogeochemistry. 9: 839-850.
1382	34.93	110.72	wheat	1.17	8.70	11.30	1.10	31.80	10.08	226.80	985.50	180.00	0.79	Liu C. et al. (2012). Responses of N2O and CH4 fluxes to fertilizer nitrogen addition rates in an irrigated wheat-maize cropping system in northern China. Biogeochemistry. 9: 839-850.
1383	34.93	110.72	wheat	1.17	8.70	11.30	1.10	31.80	10.08	226.80	985.50	300.00	0.91	Liu C. et al. (2012). Responses of N2O and CH4 fluxes to fertilizer nitrogen addition rates in an irrigated wheat-maize cropping system in northern China. Biogeochemistry. 9: 839-850.
1384	34.93	110.72	wheat	1.17	8.70	11.30	1.10	31.80	10.08	226.80	985.50	400.00	1.08	Liu C. et al. (2012). Responses of N2O and CH4 fluxes to fertilizer nitrogen addition rates in an irrigated wheat-maize cropping system in northern China. Biogeochemistry. 9: 839-850.
1385	47.45	126.92	wheat	0.98	6.30	27.96	2.60	42.00	18.20	468.00	885.00	0.00	0.50	Ding H. et al. (2004). Denitrification in losses of nitrogen fertilizer and N2O emission from different crop-black soil system in North-east China. (in Chinese with English abstract). Journal of Agro-Environment Science. 23: 323-326.
1386	47.45	126.92	wheat	0.98	6.30	27.96	2.60	42.00	18.20	468.00	885.00	83.60	0.72	Ding H. et al. (2004). Denitrification in losses of nitrogen fertilizer and N2O emission from different crop-black soil system in North-east China. (in Chinese with English abstract). Journal of Agro-Environment Science. 23: 323-326.
1387	26.75	111.88	wheat	1.30	5.56	7.54	0.74	41.40	14.20	609.00	600.00	0.00	0.10	Huang J. et al. (2011). CO2 and N2O emissions from red soil during wheat and corn growing seasons under different patterns of long-term fertilization. (in Chinese with English abstract). Journal of Ecology and Rural Environment. 27: 7-13.
1388	26.75	111.88	wheat	1.30	5.56	7.54	0.74	41.40	14.20	609.00	600.00	209.62	0.20	Huang J. et al. (2011). CO2 and N2O emissions from red soil during wheat and corn growing seasons under different patterns of long-term fertilization. (in Chinese with English abstract). Journal of Ecology and Rural Environment. 27: 7-13.
1389	26.75	111.88	wheat	1.30	5.56	7.54	0.74	41.40	14.20	609.00	600.00	209.62	0.11	Huang J. et al. (2011). CO2 and N2O emissions from red soil during wheat and corn growing seasons under different patterns of long-term fertilization. (in Chinese with English abstract). Journal of Ecology and Rural Environment. 27: 7-13.
1390	26.75	111.88	wheat	1.30	5.56	7.54	0.74	41.40	14.20	609.00	600.00	209.62	0.20	Huang J. et al. (2011). CO2 and N2O emissions from red soil during wheat and corn growing seasons under different patterns of long-term fertilization. (in Chinese with English abstract). Journal of Ecology and Rural Environment. 27: 7-13.
1391	31.87	118.83	wheat	1.15	6.70	13.10	1.10	51.00	12.05	407.79	663.66	0.00	0.24	Zou J. et al. (2005). Direct emission factor for N2O from rice-winter wheat rotation systems in southeast China. Atmospheric Environment. 39: 4755-4765.
1392	31.87	118.83	wheat	1.15	6.70	13.10	1.10	51.00	12.05	407.79	663.66	100.00	4.83	Zou J. et al. (2005). Direct emission factor for N2O from rice-winter wheat rotation systems in southeast China. Atmospheric Environment. 39: 4755-4765.
1393	31.87	118.83	wheat	1.15	6.70	13.10	1.10	51.00	12.05	407.79	663.66	200.00	6.44	Zou J. et al. (2005). Direct emission factor for N2O from rice-winter wheat rotation systems in southeast China. Atmospheric Environment. 39: 4755-4765.
1394	31.87	118.83	wheat	1.15	6.70	13.10	1.10	51.00	12.05	407.79	663.66	300.00	6.27	Zou J. et al. (2005). Direct emission factor for N2O from rice-winter wheat rotation systems in southeast China. Atmospheric Environment. 39: 4755-4765.
1395	31.87	118.83	wheat	1.15	6.70	13.10	1.10	51.00	12.05	407.79	663.66	150.00	5.41	Zou J. et al. (2005). Direct emission factor for N2O from rice-winter wheat rotation systems in southeast China. Atmospheric Environment. 39: 4755-4765.
1396	31.87	118.83	wheat	1.15	6.70	13.10	1.10	51.00	12.05	407.79	663.66	225.00	6.60	Zou J. et al. (2005). Direct emission factor for N2O from rice-winter wheat rotation systems in southeast China. Atmospheric Environment. 39: 4755-4765.
1397	31.40	120.42	wheat	1.20	5.95	11.40	0.51	21.00	13.00	708.00	964.80	0.00	0.54	Xiang J. et al. (2015). Effects of biochar on nitrous oxide and nitric oxide emissions from paddy field during the wheat growth season. Journal of Cleaner Production. 104: 52-58.
1398	31.40	120.42	wheat	1.20	5.95	11.40	0.51	21.00	13.00	708.00	964.80	225.00	4.06	Xiang J. et al. (2015). Effects of biochar on nitrous oxide and nitric oxide emissions from paddy field during the wheat growth season. Journal of Cleaner Production. 104: 52-58.
1399	31.40	120.42	wheat	1.20	5.95	11.40	0.51	21.00	13.00	708.00	964.80	262.50	5.40	Xiang J. et al. (2015). Effects of biochar on nit



1435	31.40	120.41	wheat	1.20	5.95	11.40	0.51	25.00	13.00	708.00	964.80	225.00	4.06	Xiang J. et al. (2015). Effects of biochar on nitrous oxide and nitric oxide emissions from paddy field during the wheat growth season. <i>Journal of Cleaner Production</i> , 104: 52-58
1436	31.40	120.41	wheat	1.20	5.95	11.40	0.51	25.00	13.00	708.00	964.80	225.00	4.02	Xiang J. et al. (2015). Effects of biochar on nitrous oxide and nitric oxide emissions from paddy field during the wheat growth season. <i>Journal of Cleaner Production</i> , 104: 52-58
1437	31.40	120.41	wheat	1.20	5.95	11.40	0.51	25.00	13.00	708.00	964.80	225.00	3.80	Xiang J. et al. (2015). Effects of biochar on nitrous oxide and nitric oxide emissions from paddy field during the wheat growth season. <i>Journal of Cleaner Production</i> , 104: 52-58
1438	32.60	119.70	wheat	1.16	8.00	18.40	1.45	13.60	11.66	358.07	727.55	0.00	0.88	Yao Z. et al. (2009). Tillage and crop residue management significantly affects N-trace gas emissions during the non-rice season of a subtropical rice-wheat rotation. <i>Soil Biology and Biochemistry</i> , 41(10): 2131-2140
1439	32.60	119.70	wheat	1.16	8.00	18.40	1.45	13.60	11.66	358.07	727.55	0.00	2.24	Yao Z. et al. (2009). Tillage and crop residue management significantly affects N-trace gas emissions during the non-rice season of a subtropical rice-wheat rotation. <i>Soil Biology and Biochemistry</i> , 41(10): 2131-2140
1440	31.55	120.69	wheat	1.11	7.35	20.30	2.10	14.00	10.58	191.78	876.23	135.00	0.45	Zhang X. et al. (2016). Global warming potential and greenhouse gas intensity in rice agriculture driven by high yields and nitrogen use efficiency. <i>Biogeochemistry</i> , 13(9): 2701-2714
1441	31.55	120.69	wheat	1.11	7.35	20.30	2.10	14.00	10.58	191.78	876.23	135.00	1.43	Zhang X. et al. (2016). Global warming potential and greenhouse gas intensity in rice agriculture driven by high yields and nitrogen use efficiency. <i>Biogeochemistry</i> , 13(9): 2701-2714
1442	31.55	120.69	wheat	1.11	7.35	20.30	2.10	14.00	10.58	191.78	876.23	135.00	0.65	Zhang X. et al. (2016). Global warming potential and greenhouse gas intensity in rice agriculture driven by high yields and nitrogen use efficiency. <i>Biogeochemistry</i> , 13(9): 2701-2714
1443	31.55	120.69	wheat	1.11	7.35	20.30	2.10	14.00	10.58	191.78	876.23	174.00	1.40	Zhang X. et al. (2016). Global warming potential and greenhouse gas intensity in rice agriculture driven by high yields and nitrogen use efficiency. <i>Biogeochemistry</i> , 13(9): 2701-2714
1444	31.55	120.69	wheat	1.11	7.35	20.30	2.10	14.00	10.58	191.78	876.23	337.00	1.93	Zhang X. et al. (2016). Global warming potential and greenhouse gas intensity in rice agriculture driven by high yields and nitrogen use efficiency. <i>Biogeochemistry</i> , 13(9): 2701-2714
1445	31.55	120.69	wheat	1.11	7.35	20.30	2.10	14.00	10.58	191.78	876.23	135.00	0.65	Zhang X. et al. (2016). Global warming potential and greenhouse gas intensity in rice agriculture driven by high yields and nitrogen use efficiency. <i>Biogeochemistry</i> , 13(9): 2701-2714
1446	31.55	120.69	wheat	1.11	7.35	20.30	2.10	14.00	10.58	191.78	876.23	180.00	2.13	Zhang X. et al. (2016). Global warming potential and greenhouse gas intensity in rice agriculture driven by high yields and nitrogen use efficiency. <i>Biogeochemistry</i> , 13(9): 2701-2714
1447	31.55	120.69	wheat	1.11	7.35	20.30	2.10	14.00	10.58	191.78	876.23	135.00	1.39	Zhang X. et al. (2016). Global warming potential and greenhouse gas intensity in rice agriculture driven by high yields and nitrogen use efficiency. <i>Biogeochemistry</i> , 13(9): 2701-2714
1448	31.55	120.69	wheat	1.11	7.35	20.30	2.10	14.00	10.58	191.78	876.23	174.00	2.19	Zhang X. et al. (2016). Global warming potential and greenhouse gas intensity in rice agriculture driven by high yields and nitrogen use efficiency. <i>Biogeochemistry</i> , 13(9): 2701-2714
1449	31.55	120.69	wheat	1.11	7.35	20.30	2.10	14.00	10.58	191.78	876.23	337.00	2.61	Zhang X. et al. (2016). Global warming potential and greenhouse gas intensity in rice agriculture driven by high yields and nitrogen use efficiency. <i>Biogeochemistry</i> , 13(9): 2701-2714
1450	31.55	120.69	wheat	1.11	7.35	20.30	2.10	14.00	10.58	191.78	876.23	0.00	0.35	Zhang X. et al. (2016). Global warming potential and greenhouse gas intensity in rice agriculture driven by high yields and nitrogen use efficiency. <i>Biogeochemistry</i> , 13(9): 2701-2714
1451	31.55	120.69	wheat	1.11	7.35	20.30	2.10	14.00	10.58	191.78	876.23	180.00	0.80	Zhang X. et al. (2016). Global warming potential and greenhouse gas intensity in rice agriculture driven by high yields and nitrogen use efficiency. <i>Biogeochemistry</i> , 13(9): 2701-2714
1452	31.55	120.69	wheat	1.11	7.35	20.30	2.10	14.00	10.58	191.78	876.23	135.00	0.49	Zhang X. et al. (2016). Global warming potential and greenhouse gas intensity in rice agriculture driven by high yields and nitrogen use efficiency. <i>Biogeochemistry</i> , 13(9): 2701-2714
1453	31.55	120.69	wheat	1.11	7.35	20.30	2.10	14.00	10.58	191.78	876.23	174.00	0.71	Zhang X. et al. (2016). Global warming potential and greenhouse gas intensity in rice agriculture driven by high yields and nitrogen use efficiency. <i>Biogeochemistry</i> , 13(9): 2701-2714
1454	31.55	120.69	wheat	1.11	7.35	20.30	2.10	14.00	10.58	191.78	876.23	337.00	1.02	Zhang X. et al. (2016). Global warming potential and greenhouse gas intensity in rice agriculture driven by high yields and nitrogen use efficiency. <i>Biogeochemistry</i> , 13(9): 2701-2714
1455	34.9	110.7	wheat	1.20	8.00	11.30	1.10	37.60	11.68	175.31	1243.84	0.00	1.32	Liu C. et al. (2014). Three-year measurements of nitrous oxide emissions from cotton and wheat-maize rotational cropping systems. <i>Atmospheric Environment</i> , 96: 201-208
1456	34.9	110.7	wheat	1.20	8.00	11.30	1.10	37.60	11.68	175.31	1243.84	180.00	2.44	Liu C. et al. (2014). Three-year measurements of nitrous oxide emissions from cotton and wheat-maize rotational cropping systems. <i>Atmospheric Environment</i> , 96: 201-208
1457	34.9	110.7	wheat	1.20	8.00	11.30	1.10	37.60	11.68	175.31	1243.84	0.00	0.95	Liu C. et al. (2014). Three-year measurements of nitrous oxide emissions from cotton and wheat-maize rotational cropping systems. <i>Atmospheric Environment</i> , 96: 201-208
1458	34.9	110.7	wheat	1.20	8.00	11.30	1.10	37.60	11.68	175.31	1243.84	180.00	1.53	Liu C. et al. (2014). Three-year measurements of nitrous oxide emissions from cotton and wheat-maize rotational cropping systems. <i>Atmospheric Environment</i> , 96: 201-208
1459	34.9	110.7	wheat	1.20	8.00	11.30	1.10	37.60	11.68	175.31	1243.84	0.00	0.48	Liu C. et al. (2014). Three-year measurements of nitrous oxide emissions from cotton and wheat-maize rotational cropping systems. <i>Atmospheric Environment</i> , 96: 201-208
1460	34.9	110.7	wheat	1.20	8.00	11.30	1.10	37.60	11.68	175.31	1243.84	180.00	1.32	Liu C. et al. (2014). Three-year measurements of nitrous oxide emissions from cotton and wheat-maize rotational cropping systems. <i>Atmospheric Environment</i> , 96: 201-208
1461	31.53	120.92	wheat	1.20	7.90	11.60	2.30	20.00	11.14	445.44	801.35	0.00	0.74	Yang B. et al. (2015). Mitigating net global warming potential and greenhouse gas intensities by substituting chemical nitrogen fertilizers with organic fertilization strategies in rice-wheat annual rotation systems in China: A 3-year field experiment. <i>Ecological Engineering</i> , 81: 289-297
1462	31.53	120.92	wheat	1.20	7.90	11.60	2.30	20.00	11.14	445.44	801.35	240.00	1.19	Yang B. et al. (2015). Mitigating net global warming potential and greenhouse gas intensities by substituting chemical nitrogen fertilizers with organic fertilization strategies in rice-wheat annual rotation systems in China: A 3-year field experiment. <i>Ecological Engineering</i> , 81: 289-297
1463	31.53	120.92	wheat	1.20	7.90	11.60	2.30	20.00	11.14	445.44	801.35	240.00	1.53	Yang B. et al. (2015). Mitigating net global warming potential and greenhouse gas intensities by substituting chemical nitrogen fertilizers with organic fertilization strategies in rice-wheat annual rotation systems in China: A 3-year field experiment. <i>Ecological Engineering</i> , 81: 289-297
1464	31.53	120.92	wheat	1.20	7.90	11.60	2.30	20.00	11.14	445.44	801.35	0.00	0.17	Xia L. et al. (2016). Integrating agronomic practices to reduce greenhouse gas emissions while increasing the economic return in a rice-based cropping system. <i>Agriculture, Ecosystems &amp; Environment</i> , 231: 24-33
1465	31.53	120.92	wheat	1.20	7.90	11.60	2.30	20.00	11.14	445.44	801.35	90.00	0.93	Xia L. et al. (2016). Integrating agronomic practices to reduce greenhouse gas emissions while increasing the economic return in a rice-based cropping system. <i>Agriculture, Ecosystems &amp; Environment</i> , 231: 24-33
1466	31.53	120.92	wheat	1.20	7.90	11.60	2.30	20.00	11.14	445.44	801.35	135.00	1.33	Xia L. et al. (2016). Integrating agronomic practices to reduce greenhouse gas emissions while increasing the economic return in a rice-based cropping system. <i>Agriculture, Ecosystems &amp; Environment</i> , 231: 24-33
1467	31.53	120.92	wheat	1.20	7.90	11.60	2.30	20.00	11.14	445.44	801.35	180.00	2.09	Xia L. et al. (2016). Integrating agronomic practices to reduce greenhouse gas emissions while increasing the economic return in a rice-based cropping system. <i>Agriculture, Ecosystems &amp; Environment</i> , 231: 24-33
1468	34.33	108.4	wheat	1.45	8.18	8.14	0.95	32.00	10.55	299.70	861.30	0.00	0.27	Zang A. et al. (2017). Contrasting effects of straw and straw-derived biochar application on net global warming potential in the Loess Plateau of China. <i>Field Crops Research</i> , 205: 45-54
1469	34.33	108.4	wheat	1.45	8.18	8.14	0.95	32.00	10.55	299.70	861.30	270.00	0.80	Zang A. et al. (2017). Contrasting effects of straw and straw-derived biochar application on net global warming potential in the Loess Plateau of China. <i>Field Crops Research</i> , 205: 45-54
1470	34.33	108.4	wheat	1.45	8.18	8.14	0.95	32.00	10.55	299.70	861.30	270.00	1.00	Zang A. et al. (2017). Contrasting effects of straw and straw-derived biochar application on net global warming potential in the Loess Plateau of China. <i>Field Crops Research</i> , 205: 45-54
1471	34.33	108.4	wheat	1.45	8.18	8.14	0.95	32.00	10.55	299.70	861.30	0.00	0.22	Zang A. et al. (2017). Contrasting effects of straw and straw-derived biochar application on net global warming potential in the Loess Plateau of China. <i>Field Crops Research</i> , 205: 45-54
1472	34.33	108.4	wheat	1.45	8.18	8.14	0.95	32.00	10.55	299.70	861.30	270.00	0.57	Zang A. et al. (2017). Contrasting effects of straw and straw-derived biochar application on net global warming potential in the Loess Plateau of China. <i>Field Crops Research</i> , 205: 45-54
1473	34.33	108.4	wheat	1.45	8.18	8.14	0.95	32.00	10.55	299.70	861.30	270.00	0.57	Zang A. et al. (2017). Contrasting effects of straw and straw-derived biochar application on net global warming potential in the Loess Plateau of China. <i>Field Crops Research</i> , 205: 45-54
1474	47.4	126.6	wheat	1.20	7.00	28.00	2.20	46.00	15.65	417.60	480.00	0.00	0.14	Qiao Y. et al. (2014). The effect of fertilizer practices on N balance and global warming potential of maize-soybean-wheat rotations in Northeastern China. <i>Field Crops Research</i> , 161: 98-106
1475	47.4	126.6	wheat	1.20	7.00	28.00	2.20	46.00	15.65	417.60	480.00	113.00	0.22	Qiao Y. et al. (2014). The effect of fertilizer practices on N balance and global warming potential of maize-soybean-wheat rotations in Northeastern China. <i>Field Crops Research</i> , 161: 98-106
1476	47.4	126.6	wheat	1.20	7.00	28.00	2.20	46.00	15.65	417.60	480.00	113.00	0.41	Qiao Y. et al. (2014). The effect of fertilizer practices on N balance and global warming potential of maize-soybean-wheat rotations in Northeastern China. <i>Field Crops Research</i> , 161: 98-106
1477	47.4	126.6	wheat	1.20	7.00	28.00	2.20	46.00	15.65	417.60	480.00	113.00	0.20	Qiao Y. et al. (2014). The effect of fertilizer practices on N balance and global warming potential of maize-soybean-wheat rotations in Northeastern China. <i>Field Crops Research</i> , 161: 98-106
1478	47.4	126.6	wheat	1.20	7.00	28.00	2.20	46.00	15.65	417.60	480.00	149.00	0.52	Qiao Y. et al. (2014). The effect of fertilizer practices on N balance and global warming potential of maize-soybean-wheat rotations in Northeastern China. <i>Field Crops Research</i> , 161: 98-106
1479	31.9	118.8	wheat	1.24	6.50	15.30	1.50	54.00	12.29	603.17	882.79	0.00	1.20	Liu S. et al. (2010). Effects of water regime during rice-growing season on annual direct N <sub>2</sub> O emission in a paddy rice-winter wheat rotation system in southeast China. <i>Science of The Total Environment</i> , 408(4): 906-913
1480	31.9	118.8	wheat	1.24	6.50	15.30	1.50	54.00	12.29	603.17	882.79	75.00	3.92	Liu S. et al. (2010). Effects of water regime during rice-growing season on annual direct N <sub>2</sub> O emission in a paddy rice-winter wheat rotation system in southeast China. <i>Science of The Total Environment</i> , 408(4): 906-913
1481	31.9	118.8	wheat	1.24	6.50	15.30	1.50	54.00	12.29	603.17	882.79	150.00	4.93	Liu S. et al. (2010). Effects of water regime during rice-growing season on annual direct N <sub>2</sub> O emission in a paddy rice-winter wheat rotation system in southeast China. <i>Science of The Total Environment</i> , 408(4): 906-913
1482	31.9	118.8	wheat	1.24	6.50	15.30	1.50	54.00	12.29	603.17	882.79	250.00	6.07	Liu S. et al. (2010). Effects of water regime during rice-growing season on annual direct N <sub>2</sub> O emission in a paddy rice-winter wheat rotation system in southeast China. <i>Science of The Total Environment</i> , 408(4): 906-913
1483	31.9	118.8	wheat	1.24	6.50	15.30	1.50	54.00	12.29	603.17	882.79	0.00	1.51	Liu S. et al. (2010). Effects of water regime during rice-growing season on annual direct N <sub>2</sub> O emission in a paddy rice-winter wheat rotation system in southeast China. <i>Science of The Total Environment</i> , 408(4): 906-913
1484	31.9	118.8	wheat	1.24	6.50	15.30	1.50	54.00	12.29	603.17	882.79	75.00	2.88	Liu S. et al. (2010). Effects of water regime during rice-growing season on annual direct N <sub>2</sub> O emission in a paddy rice-winter wheat rotation system in southeast China. <i>Science of The Total Environment</i> , 408(4): 906-913
1485	31.9	118.8	wheat	1.24	6.50	15.30	1.50	54.00	12.29	603.17	882.79	150.00	3.85	Liu S. et al. (2010). Effects of water regime during rice-growing season on annual direct N <sub>2</sub> O emission in a paddy rice-winter wheat rotation system in southeast China. <i>Science of The Total Environment</i> , 408(4): 906-913
1486	31.9	118.8	wheat	1.24	6.50	15.30	1.50	54.00	12.29	603.17	882.79	250.00	5.78	Liu S. et al. (2010). Effects of water regime during rice-growing season on annual direct N <sub>2</sub> O emission in a paddy rice-winter wheat rotation system in southeast China. <i>Science of The Total Environment</i> , 408(4): 906-913
1487	31.9	118.8	wheat	1.24	6.50	15.30	1.50	54.00	12.29	603.17	882.79	0.00	0.96	Liu S. et al. (2010). Effects of water regime during rice-growing season on annual direct N <sub>2</sub> O emission in a paddy rice-winter wheat rotation system in southeast China. <i>Science of The Total Environment</i> , 408(4): 906-913
1488	31.9	118.8	wheat	1.24	6.50	15.30	1.50	54.00	12.29	603.17	882.79	75.00	1.81	Liu S. et al. (2010). Effects of water regime during rice-growing season on annual direct N <sub>2</sub> O emission in a paddy rice-winter wheat rotation system in southeast China. <i>Science of The Total Environment</i> , 408(4): 906-913
1489	31.9	118.8	wheat	1.24	6.50	15.30	1.50	54.00	12.29	603.17	882.79	150.00	2.41	Liu S. et al. (2010). Effects of water regime during rice-growing season on annual direct N <sub>2</sub> O emission in a paddy rice-winter wheat rotation system in southeast China. <i>Science of The Total Environment</i> , 408(4): 906-913
1490	31.9	118.8	wheat	1.24	6.50	15.30	1.50	54.00	12.29	603.17	882.79	250.00	3.88	Liu S. et al. (2010). Effects of water regime during rice-growing season on annual direct N <sub>2</sub> O emission in a paddy rice-winter wheat rotation system in southeast China. <i>Science of The Total Environment</i> , 408(4): 906-913
1491	31.4	120.4	wheat	1.20	5.95	11.40	0.51	29.90	13.00	708.00	964.80	0.00	0.54	Xiang J. et al. (2015). Effects of biochar on nitrous oxide and nitric oxide emissions from paddy field during the wheat growth season. <i>Journal of Cleaner Production</i> , 104: 52-58
1492	31.4	120.4	wheat	1.20	5.95	11.40	0.51	29.90	13.00	708.00	964.80	262.50	5.40	Xiang J. et al. (2015). Effects of biochar on nitrous oxide and nitric oxide emissions from paddy field during the wheat growth season. <i>Journal of Cleaner Production</i> , 104: 52-58
1493	31.4	120.4	wheat	1.20	5.95	11.40	0.51	29.90	13.00	708.00	964.80	225.00	4.06	Xiang J. et al. (2015). Effects of biochar on nitrous oxide and nitric oxide emissions from paddy field during the wheat growth season. <i>Journal of Cleaner Production</i> , 104: 52-58
1494	31.3	105.5	wheat	1.32	8.30	8.47	1.01	6.50	13.00	400.80	585.60	0.00	1.29	Zhou M. et al. (2013). Nitrous oxide emissions and nitrate leaching from a rain-fed wheat-maize rotation in the Sichuan Basin, China. <i>Plant and Soil</i> , 362: 149-159
1495	31.3	105.5	wheat	1.32	8.30	8								



1627	36.87	115.02	maize	1.37	7.72	7.30	0.70	34.00	21.00	380.51	926.89	250.00	1.76	Gao B. et al. (2015). The impact of alternative cropping systems on global warming potential, grain yield and groundwater use. <i>Agriculture Ecosystems &amp; Environment</i> . 203:46-54.
1628	36.87	115.02	maize	1.37	7.72	7.30	0.70	34.00	21.00	380.51	926.89	185.00	1.28	Gao B. et al. (2015). The impact of alternative cropping systems on global warming potential, grain yield and groundwater use. <i>Agriculture Ecosystems &amp; Environment</i> . 203:46-54.
1629	36.87	115.02	maize	1.37	7.72	7.30	0.70	34.00	21.00	380.51	926.89	162.00	1.29	Gao B. et al. (2015). The impact of alternative cropping systems on global warming potential, grain yield and groundwater use. <i>Agriculture Ecosystems &amp; Environment</i> . 203:46-54.
1630	36.87	115.02	maize	1.37	7.72	7.30	0.70	34.00	21.00	380.51	926.89	178.00	1.01	Gao B. et al. (2015). The impact of alternative cropping systems on global warming potential, grain yield and groundwater use. <i>Agriculture Ecosystems &amp; Environment</i> . 203:46-54.
1631	36.87	115.02	maize	1.37	7.72	7.30	0.70	34.00	21.00	380.51	926.89	180.00	1.11	Gao B. et al. (2015). The impact of alternative cropping systems on global warming potential, grain yield and groundwater use. <i>Agriculture Ecosystems &amp; Environment</i> . 203:46-54.
1632	36.87	115.02	maize	1.37	7.72	7.30	0.70	34.00	21.00	380.51	926.89	250.00	1.66	Gao B. et al. (2015). The impact of alternative cropping systems on global warming potential, grain yield and groundwater use. <i>Agriculture Ecosystems &amp; Environment</i> . 203:46-54.
1633	36.87	115.02	maize	1.37	7.72	7.30	0.70	34.00	21.00	380.51	926.89	185.00	1.42	Gao B. et al. (2015). The impact of alternative cropping systems on global warming potential, grain yield and groundwater use. <i>Agriculture Ecosystems &amp; Environment</i> . 203:46-54.
1634	36.87	115.02	maize	1.37	7.72	7.30	0.70	34.00	21.00	380.51	926.89	185.00	1.29	Gao B. et al. (2015). The impact of alternative cropping systems on global warming potential, grain yield and groundwater use. <i>Agriculture Ecosystems &amp; Environment</i> . 203:46-54.
1635	36.87	115.02	maize	1.37	7.72	7.30	0.70	34.00	21.00	380.51	926.89	45.00	0.90	Gao B. et al. (2015). The impact of alternative cropping systems on global warming potential, grain yield and groundwater use. <i>Agriculture Ecosystems &amp; Environment</i> . 203:46-54.
1636	36.87	115.02	maize	1.37	7.72	7.30	0.70	34.00	21.00	380.51	926.89	263.00	3.46	Gao B. et al. (2015). The impact of alternative cropping systems on global warming potential, grain yield and groundwater use. <i>Agriculture Ecosystems &amp; Environment</i> . 203:46-54.
1637	34.93	110.72	maize	1.44	8.30	7.77	0.95	34.09	10.08	226.80	985.50	180.00	1.32	Liu C. et al. (2014). Three-year measurements of nitrous oxide emissions from cotton and wheat-maize rotational cropping systems. <i>Atmospheric Environment</i> . 96(7):201-208.
1638	34.93	110.72	maize	1.44	8.30	7.77	0.95	34.09	10.08	226.80	985.50	180.00	1.32	Liu C. et al. (2014). Three-year measurements of nitrous oxide emissions from cotton and wheat-maize rotational cropping systems. <i>Atmospheric Environment</i> . 96(7):201-208.
1639	34.55	110.42	maize	1.44	8.30	8.78	0.95	18.00	23.30	424.50	984.00	120.00	3.73	Liu C. et al. (2014). Three-year measurements of nitrous oxide emissions from cotton and wheat-maize rotational cropping systems. <i>Atmospheric Environment</i> . 96(7):201-208.
1640	34.55	110.42	maize	1.44	8.30	8.78	0.95	18.00	23.30	424.50	984.00	210.00	2.96	Liu C. et al. (2014). Three-year measurements of nitrous oxide emissions from cotton and wheat-maize rotational cropping systems. <i>Atmospheric Environment</i> . 96(7):201-208.
1641	34.55	110.42	maize	1.44	8.30	8.78	0.95	18.00	23.30	424.50	984.00	250.00	3.17	Liu C. et al. (2014). Three-year measurements of nitrous oxide emissions from cotton and wheat-maize rotational cropping systems. <i>Atmospheric Environment</i> . 96(7):201-208.
1642	47.26	126.38	maize	1.40	7.00	16.24	2.20	21.42	18.10	426.00	870.00	0.00	0.20	Qiao Y. et al. (2014). The effect of fertilizer practices on N balance and global warming potential of maize-soybean-wheat rotations in Northeastern China. <i>Field Crops Research</i> . 161:98-106.
1643	47.26	126.38	maize	1.40	7.00	16.24	2.20	21.42	18.10	426.00	870.00	113.00	0.73	Qiao Y. et al. (2014). The effect of fertilizer practices on N balance and global warming potential of maize-soybean-wheat rotations in Northeastern China. <i>Field Crops Research</i> . 161:98-106.
1644	47.26	126.38	maize	1.40	7.00	16.24	2.20	21.42	18.10	426.00	870.00	113.00	0.85	Qiao Y. et al. (2014). The effect of fertilizer practices on N balance and global warming potential of maize-soybean-wheat rotations in Northeastern China. <i>Field Crops Research</i> . 161:98-106.
1645	47.26	126.38	maize	1.40	7.00	16.24	2.20	21.42	18.10	426.00	870.00	113.00	0.75	Qiao Y. et al. (2014). The effect of fertilizer practices on N balance and global warming potential of maize-soybean-wheat rotations in Northeastern China. <i>Field Crops Research</i> . 161:98-106.
1646	47.26	126.38	maize	1.40	7.00	16.24	2.20	21.42	18.10	426.00	870.00	149.00	2.38	Qiao Y. et al. (2014). The effect of fertilizer practices on N balance and global warming potential of maize-soybean-wheat rotations in Northeastern China. <i>Field Crops Research</i> . 161:98-106.
1647	31.16	105.28	maize	1.32	8.30	6.35	0.55	18.20	22.70	474.00	427.00	0.00	0.12	Zhou M.H. et al. (2014). N2O and CH4 Emissions, and N03 Leaching on a Crop-Yield Basis from a Subtropical Rain-fed Wheat-Maize Rotation in Response to Different Types of Nitrogen Fertilizer. <i>Ecosystems</i> . 17(2):286-301.
1648	31.16	105.28	maize	1.32	8.30	6.35	0.55	18.20	22.70	474.00	427.00	150.00	1.00	Zhou M.H. et al. (2014). N2O and CH4 Emissions, and N03 Leaching on a Crop-Yield Basis from a Subtropical Rain-fed Wheat-Maize Rotation in Response to Different Types of Nitrogen Fertilizer. <i>Ecosystems</i> . 17(2):286-301.
1649	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.30	562.80	792.00	0.00	0.09	Huang T. et al. (2013). Net global warming potential and greenhouse gas intensity in a double-cropping cereal rotation as affected by nitrogen and straw management. <i>Biogeochemistry</i> . 108(8):7897-7911.
1650	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.30	562.80	792.00	260.00	1.99	Huang T. et al. (2013). Net global warming potential and greenhouse gas intensity in a double-cropping cereal rotation as affected by nitrogen and straw management. <i>Biogeochemistry</i> . 108(8):7897-7911.
1651	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.30	562.80	792.00	260.00	1.80	Huang T. et al. (2013). Net global warming potential and greenhouse gas intensity in a double-cropping cereal rotation as affected by nitrogen and straw management. <i>Biogeochemistry</i> . 108(8):7897-7911.
1652	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.30	562.80	792.00	65.00	0.47	Huang T. et al. (2013). Net global warming potential and greenhouse gas intensity in a double-cropping cereal rotation as affected by nitrogen and straw management. <i>Biogeochemistry</i> . 108(8):7897-7911.
1653	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.30	562.80	792.00	260.00	0.72	Huang T. et al. (2013). Net global warming potential and greenhouse gas intensity in a double-cropping cereal rotation as affected by nitrogen and straw management. <i>Biogeochemistry</i> . 108(8):7897-7911.
1654	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.30	562.80	792.00	260.00	1.97	Huang T. et al. (2013). Net global warming potential and greenhouse gas intensity in a double-cropping cereal rotation as affected by nitrogen and straw management. <i>Biogeochemistry</i> . 108(8):7897-7911.
1655	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.30	562.80	792.00	260.00	1.18	Huang T. et al. (2013). Net global warming potential and greenhouse gas intensity in a double-cropping cereal rotation as affected by nitrogen and straw management. <i>Biogeochemistry</i> . 108(8):7897-7911.
1656	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.30	562.80	792.00	260.00	1.21	Huang T. et al. (2013). Net global warming potential and greenhouse gas intensity in a double-cropping cereal rotation as affected by nitrogen and straw management. <i>Biogeochemistry</i> . 108(8):7897-7911.
1663	39.30	115.25	maize	1.36	8.30	9.22	1.01	19.76	22.60	506.40	795.60	0.00	0.71	Shan N. (2014). Nitrogen utilization and loss in winter wheat-summer maize rotation system of Beijing suburb. (in Chinese with English abstract). <i>Agricultural University of Hebei (Baoding, China)</i>
1664	39.30	115.25	maize	1.36	8.30	9.22	1.01	19.76	22.60	506.40	795.60	100.00	1.51	Shan N. (2014). Nitrogen utilization and loss in winter wheat-summer maize rotation system of Beijing suburb. (in Chinese with English abstract). <i>Agricultural University of Hebei (Baoding, China)</i>
1665	39.30	115.25	maize	1.36	8.30	9.22	1.01	19.76	22.60	506.40	795.60	150.00	3.33	Shan N. (2014). Nitrogen utilization and loss in winter wheat-summer maize rotation system of Beijing suburb. (in Chinese with English abstract). <i>Agricultural University of Hebei (Baoding, China)</i>
1666	39.30	115.25	maize	1.36	8.30	9.22	1.01	19.76	22.60	506.40	795.60	200.00	4.51	Shan N. (2014). Nitrogen utilization and loss in winter wheat-summer maize rotation system of Beijing suburb. (in Chinese with English abstract). <i>Agricultural University of Hebei (Baoding, China)</i>
1667	39.30	115.25	maize	1.36	8.30	9.22	1.01	19.76	22.60	506.40	795.60	250.00	5.95	Shan N. (2014). Nitrogen utilization and loss in winter wheat-summer maize rotation system of Beijing suburb. (in Chinese with English abstract). <i>Agricultural University of Hebei (Baoding, China)</i>
1668	39.30	115.25	maize	1.36	8.30	9.22	1.01	19.76	22.60	506.40	795.60	300.00	7.17	Shan N. (2014). Nitrogen utilization and loss in winter wheat-summer maize rotation system of Beijing suburb. (in Chinese with English abstract). <i>Agricultural University of Hebei (Baoding, China)</i>
1669	39.30	115.25	maize	1.36	8.30	9.22	1.01	19.76	22.60	506.40	795.60	400.00	10.00	Shan N. (2014). Nitrogen utilization and loss in winter wheat-summer maize rotation system of Beijing suburb. (in Chinese with English abstract). <i>Agricultural University of Hebei (Baoding, China)</i>
1670	45.41	126.37	maize	1.05	7.12	16.20	1.29	34.00	19.30	376.50	1024.50	0.00	0.21	Ni K. et al. (2012). Nitrous oxide emissions from a rainfed-irrigated black soil in Northeast China: effect of fertilization and maize crop. <i>Biology &amp; Fertility of Soils</i> . 48(9):973-979.
1671	45.41	126.37	maize	1.05	7.12	16.20	1.29	34.00	19.30	376.50	1024.50	225.00	0.88	Ni K. et al. (2012). Nitrous oxide emissions from a rainfed-irrigated black soil in Northeast China: effect of fertilization and maize crop. <i>Biology &amp; Fertility of Soils</i> . 48(9):973-979.
1672	37.38	112.51	maize	1.33	8.40	16.90	1.02	19.90	18.87	501.00	996.00	0.00	0.21	Liu Y.T. et al. (2011). Nitrous oxide emissions from irrigated and fertilized spring maize in semi-arid northern China. <i>Agriculture Ecosystems &amp; Environment</i> . 141(3):287-295.
1673	37.38	112.51	maize	1.33	8.40	16.90	1.02	19.90	18.87	501.00	996.00	120.00	0.78	Liu Y.T. et al. (2011). Nitrous oxide emissions from irrigated and fertilized spring maize in semi-arid northern China. <i>Agriculture Ecosystems &amp; Environment</i> . 141(3):287-295.
1674	37.38	112.51	maize	1.33	8.40	16.90	1.02	19.90	18.87	501.00	996.00	330.00	1.49	Liu Y.T. et al. (2011). Nitrous oxide emissions from irrigated and fertilized spring maize in semi-arid northern China. <i>Agriculture Ecosystems &amp; Environment</i> . 141(3):287-295.
1675	41.32	122.23	maize	1.40	6.40	9.38	0.76	36.09	21.50	399.00	966.00	0.00	0.17	Huang G.H. et al. (1998). N2O emission in maize field and its mitigation. (in Chinese with English abstract). <i>Acta Scientiae Circumstantiae</i> . 18(4):345-349.
1676	41.32	122.23	maize	1.40	6.40	9.38	0.76	36.09	21.50	399.00	966.00	180.00	3.42	Huang G.H. et al. (1998). N2O emission in maize field and its mitigation. (in Chinese with English abstract). <i>Acta Scientiae Circumstantiae</i> . 18(4):345-349.
1677	41.32	122.23	maize	1.40	6.40	9.38	0.76	36.09	21.50	399.00	966.00	180.00	4.00	Huang G.H. et al. (1998). N2O emission in maize field and its mitigation. (in Chinese with English abstract). <i>Acta Scientiae Circumstantiae</i> . 18(4):345-349.
1678	41.32	122.23	maize	1.40	6.40	9.38	0.76	36.09	21.50	399.00	966.00	180.00	1.21	Huang G.H. et al. (1998). N2O emission in maize field and its mitigation. (in Chinese with English abstract). <i>Acta Scientiae Circumstantiae</i> . 18(4):345-349.
1679	37.38	112.51	maize	1.33	7.50	9.80	1.79	22.29	19.70	501.00	996.00	0.00	0.21	Liu Y.T. et al. (2011). Nitrous oxide emissions from spring-maize field under the application of different nitrogen and phosphorus fertilizers. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 30(1468-1475).
1680	37.38	112.51	maize	1.33	7.50	9.80	1.79	22.29	19.70	501.00	996.00	180.00	1.19	Liu Y.T. et al. (2011). Nitrous oxide emissions from spring-maize field under the application of different nitrogen and phosphorus fertilizers. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 30(1468-1475).
1681	37.38	112.51	maize	1.33	7.50	9.80	1.79	22.29	19.70	501.00	996.00	180.00	0.93	Liu Y.T. et al. (2011). Nitrous oxide emissions from spring-maize field under the application of different nitrogen and phosphorus fertilizers. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 30(1468-1475).
1682	37.38	112.51	maize	1.33	7.50	9.80	1.79	22.29	19.70	501.00	996.00	180.00	0.69	Liu Y.T. et al. (2011). Nitrous oxide emissions from spring-maize field under the application of different nitrogen and phosphorus fertilizers. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 30(1468-1475).
1683	35.00	114.24	maize	1.35	8.35	4.43	0.40	13.64	25.10	452.40	607.20	0.00	0.08	Cai Y. et al. (2010). Spatial variation of nitrous oxide emission between interrow soil and interrow plus row soil in a long-term maize cultivated sandy loam soil. <i>Geoderma</i> . 181-182(none):2-10.
1684	35.00	114.24	maize	1.35	8.35	4.43	0.40	13.64	25.10	452.40	607.20	150.00	1.22	Cai Y. et al. (2010). Spatial variation of nitrous oxide emission between interrow soil and interrow plus row soil in a long-term maize cultivated sandy loam soil. <i>Geoderma</i> . 181-182(none):2-10.
1685	35.00	114.24	maize	1.35	8.35	4.43	0.40	13.64	25.10	452.40	607.20	150.00	0.92	Cai Y. et al. (2010). Spatial variation of nitrous oxide emission between interrow soil and interrow plus row soil in a long-term maize cultivated sandy loam soil. <i>Geoderma</i> . 181-182(none):2-10.
1686	35.00	114.24	maize	1.35	8.35	4.43	0.40	13.64	25.10	452.40	607.20	0.00	0.06	Cai Y. et al. (2010). Spatial variation of nitrous oxide emission between interrow soil and interrow plus row soil in a long-term maize cultivated sandy loam soil. <i>Geoderma</i> . 181-182(none):2-10.
1687	35.00	114.24	maize	1.35	8.35	5.61	0.40	13.64	25.10	452.40	607.20	150.00	0.49	Cai Y. et al. (2010). Spatial variation of nitrous oxide emission between interrow soil and interrow plus row soil in a long-term maize cultivated sandy loam soil. <i>Geoderma</i> . 181-182(none):2-10.
1688	35.00	114.24	maize	1.35	8.35	6.51	0.40	13.64	25.10	452.40	607.20	0.00	0.06	Cai Y. et al. (2010). Spatial variation of nitrous oxide emission between interrow soil and interrow plus row soil in a long-term maize cultivated sandy loam soil. <i>Geoderma</i> . 181-182

1723	45.50	126.51	maize	1.26	6.85	12.59	1.14	23.31	19.80	558.00	964.50	210.00	1.04	Gao J.M. (2015). Effects of Different Fertilization Modes on Nitrogen Use and Greenhouse Gas Emissions from Spring Maize in Northeast China. (in Chinese with English abstract). Chinese Academy of Agricultural Sciences. (Beijing, China)
1724	45.50	126.51	maize	1.26	6.85	12.59	1.14	23.31	19.80	558.00	964.50	165.00	0.82	Gao J.M. (2015). Effects of Different Fertilization Modes on Nitrogen Use and Greenhouse Gas Emissions from Spring Maize in Northeast China. (in Chinese with English abstract). Chinese Academy of Agricultural Sciences. (Beijing, China)
1725	39.57	118.60	maize	1.42	7.23	8.82	0.96	19.79	23.00	537.60	849.60	0.00	0.40	Lu T. (2015). Effects of different carbon and nitrogen management practices on N2O emissions from spring maize field. (in Chinese with English abstract). Shihezi University. (Shihezi, China)
1726	39.57	118.60	maize	1.42	7.23	8.82	0.96	19.79	23.00	537.60	849.60	180.00	1.37	Lu T. (2015). Effects of different carbon and nitrogen management practices on N2O emissions from spring maize field. (in Chinese with English abstract). Shihezi University. (Shihezi, China)
1727	39.57	118.60	maize	1.42	7.23	8.82	0.96	19.79	23.00	537.60	849.60	108.00	0.69	Lu T. (2015). Effects of different carbon and nitrogen management practices on N2O emissions from spring maize field. (in Chinese with English abstract). Shihezi University. (Shihezi, China)
1728	39.57	118.60	maize	1.42	7.23	8.82	0.96	19.79	23.00	537.60	849.60	180.00	1.72	Lu T. (2015). Effects of different carbon and nitrogen management practices on N2O emissions from spring maize field. (in Chinese with English abstract). Shihezi University. (Shihezi, China)
1729	45.84	126.83	maize	1.26	7.10	18.68	1.90	23.31	19.80	558.00	964.50	0.00	0.32	Hao X.Y. et al. (2015). Effects of nitrogen fertilizer management measures on greenhouse gas emissions from black soil corn fields. (in Chinese with English abstract). China Environmental Science. 35(11):3227-3238.
1730	45.84	126.83	maize	1.26	7.10	18.68	1.90	23.31	19.80	558.00	964.50	185.00	0.94	Hao X.Y. et al. (2015). Effects of nitrogen fertilizer management measures on greenhouse gas emissions from black soil corn fields. (in Chinese with English abstract). China Environmental Science. 35(11):3227-3238.
1731	45.84	126.83	maize	1.26	7.10	18.68	1.90	23.31	19.80	558.00	964.50	148.00	0.77	Hao X.Y. et al. (2015). Effects of nitrogen fertilizer management measures on greenhouse gas emissions from black soil corn fields. (in Chinese with English abstract). China Environmental Science. 35(11):3227-3238.
1732	45.84	126.83	maize	1.26	7.10	18.68	1.90	23.31	19.80	558.00	964.50	148.00	0.51	Hao X.Y. et al. (2015). Effects of nitrogen fertilizer management measures on greenhouse gas emissions from black soil corn fields. (in Chinese with English abstract). China Environmental Science. 35(11):3227-3238.
1733	35.12	107.40	maize	1.30	8.40	6.48	0.62	24.00	19.70	436.50	493.50	0.00	0.52	Jiang J.S. (2015). Effects of nitrogen fertilization and rotation on greenhouse gases emissions on arid-highland of the loess plateau. (in Chinese with English abstract). The University of Chinese Academy of Sciences. (Yangling, China)
1734	35.12	107.40	maize	1.30	8.40	6.48	0.62	24.00	19.70	436.50	493.50	20.00	1.42	Jiang J.S. (2015). Effects of nitrogen fertilization and rotation on greenhouse gases emissions on arid-highland of the loess plateau. (in Chinese with English abstract). The University of Chinese Academy of Sciences. (Yangling, China)
1735	35.12	107.40	maize	1.30	8.40	6.48	0.62	24.00	19.70	436.50	493.50	160.00	1.01	Jiang J.S. (2015). Effects of nitrogen fertilization and rotation on greenhouse gases emissions on arid-highland of the loess plateau. (in Chinese with English abstract). The University of Chinese Academy of Sciences. (Yangling, China)
1736	35.12	107.40	maize	1.30	8.40	6.48	0.62	24.00	19.70	436.50	493.50	0.00	0.39	Jiang J.S. (2015). Effects of nitrogen fertilization and rotation on greenhouse gases emissions on arid-highland of the loess plateau. (in Chinese with English abstract). The University of Chinese Academy of Sciences. (Yangling, China)
1737	35.12	107.40	maize	1.30	8.40	6.48	0.62	24.00	19.70	436.50	493.50	200.00	1.28	Jiang J.S. (2015). Effects of nitrogen fertilization and rotation on greenhouse gases emissions on arid-highland of the loess plateau. (in Chinese with English abstract). The University of Chinese Academy of Sciences. (Yangling, China)
1738	35.12	107.40	maize	1.30	8.40	6.48	0.62	24.00	19.70	436.50	493.50	160.00	0.90	Jiang J.S. (2015). Effects of nitrogen fertilization and rotation on greenhouse gases emissions on arid-highland of the loess plateau. (in Chinese with English abstract). The University of Chinese Academy of Sciences. (Yangling, China)
1739	37.20	116.38	maize	1.40	8.00	4.93	0.60	20.54	24.90	558.00	838.80	0.00	0.20	Li Y.Q. et al. (2015). Effect of organic and inorganic fertilizer on the emission of CO2 and N2O from the summer maize field in the North China plain. (in Chinese with English abstract). Scientia Agricultura Sinica. 48(21):4381-4389.
1740	37.20	116.38	maize	1.40	8.00	4.93	0.60	20.54	24.90	558.00	838.80	120.00	0.66	Li Y.Q. et al. (2015). Effect of organic and inorganic fertilizer on the emission of CO2 and N2O from the summer maize field in the North China plain. (in Chinese with English abstract). Scientia Agricultura Sinica. 48(21):4381-4389.
1741	37.20	116.38	maize	1.40	8.00	4.93	0.60	20.54	24.90	558.00	838.80	240.00	0.86	Li Y.Q. et al. (2015). Effect of organic and inorganic fertilizer on the emission of CO2 and N2O from the summer maize field in the North China plain. (in Chinese with English abstract). Scientia Agricultura Sinica. 48(21):4381-4389.
1742	37.20	116.38	maize	1.40	8.00	4.93	0.60	20.54	24.90	558.00	838.80	360.00	1.84	Li Y.Q. et al. (2015). Effect of organic and inorganic fertilizer on the emission of CO2 and N2O from the summer maize field in the North China plain. (in Chinese with English abstract). Scientia Agricultura Sinica. 48(21):4381-4389.
1743	37.20	116.38	maize	1.40	8.00	4.93	0.60	20.54	24.90	558.00	838.80	500.00	1.93	Li Y.Q. et al. (2015). Effect of organic and inorganic fertilizer on the emission of CO2 and N2O from the summer maize field in the North China plain. (in Chinese with English abstract). Scientia Agricultura Sinica. 48(21):4381-4389.
1744	37.20	116.38	maize	1.40	8.00	4.93	0.60	20.54	24.90	558.00	838.80	120.00	0.27	Li Y.Q. et al. (2015). Effect of organic and inorganic fertilizer on the emission of CO2 and N2O from the summer maize field in the North China plain. (in Chinese with English abstract). Scientia Agricultura Sinica. 48(21):4381-4389.
1745	37.20	116.38	maize	1.40	8.00	4.93	0.60	20.54	24.90	558.00	838.80	240.00	0.38	Li Y.Q. et al. (2015). Effect of organic and inorganic fertilizer on the emission of CO2 and N2O from the summer maize field in the North China plain. (in Chinese with English abstract). Scientia Agricultura Sinica. 48(21):4381-4389.
1746	37.20	116.38	maize	1.40	8.00	4.93	0.60	20.54	24.90	558.00	838.80	360.00	0.66	Li Y.Q. et al. (2015). Effect of organic and inorganic fertilizer on the emission of CO2 and N2O from the summer maize field in the North China plain. (in Chinese with English abstract). Scientia Agricultura Sinica. 48(21):4381-4389.
1747	37.20	116.38	maize	1.40	8.00	4.93	0.60	20.54	24.90	558.00	838.80	500.00	0.96	Li Y.Q. et al. (2015). Effect of organic and inorganic fertilizer on the emission of CO2 and N2O from the summer maize field in the North China plain. (in Chinese with English abstract). Scientia Agricultura Sinica. 48(21):4381-4389.
1748	35.12	107.40	maize	1.40	8.40	8.15	0.90	17.00	22.10	549.48	492.95	0.00	0.48	Huang H.Z. (2014). Effect of Biochar on Greenhouse emissions from dryland spring maize on the loess plateau. (in Chinese with English abstract). Northwest A & F University. (Yangling, China)
1749	35.12	107.40	maize	1.40	8.40	8.15	0.90	17.00	22.10	549.48	492.95	225.00	1.54	Huang H.Z. (2014). Effect of Biochar on Greenhouse emissions from dryland spring maize on the loess plateau. (in Chinese with English abstract). Northwest A & F University. (Yangling, China)
1750	36.18	117.12	maize	1.43	7.70	7.48	1.00	21.24	24.70	416.40	699.60	0.00	1.39	Li.N. (2014). Effects of tillage practice and poly-coated urea on N2O from summer maize field. Shandong Agricultural University. (Tainan, China)
1751	36.18	117.12	maize	1.43	7.70	7.48	1.00	21.24	24.70	416.40	699.60	225.00	3.12	Li.N. (2014). Effects of tillage practice and poly-coated urea on N2O from summer maize field. Shandong Agricultural University. (Tainan, China)
1752	36.18	117.12	maize	1.43	7.70	7.48	1.00	21.24	24.70	416.40	699.60	225.00	2.81	Li.N. (2014). Effects of tillage practice and poly-coated urea on N2O from summer maize field. Shandong Agricultural University. (Tainan, China)
1753	36.18	117.12	maize	1.43	7.70	7.48	1.00	21.24	24.70	416.40	699.60	0.00	2.31	Li.N. (2014). Effects of tillage practice and poly-coated urea on N2O from summer maize field. Shandong Agricultural University. (Tainan, China)
1754	36.18	117.12	maize	1.43	7.70	7.48	1.00	21.24	24.70	416.40	699.60	225.00	3.63	Li.N. (2014). Effects of tillage practice and poly-coated urea on N2O from summer maize field. Shandong Agricultural University. (Tainan, China)
1755	36.18	117.12	maize	1.43	7.70	7.48	1.00	21.24	24.70	416.40	699.60	225.00	3.38	Li.N. (2014). Effects of tillage practice and poly-coated urea on N2O from summer maize field. Shandong Agricultural University. (Tainan, China)
1756	36.18	117.12	maize	1.43	7.70	7.48	1.00	21.24	24.70	416.40	699.60	0.00	2.00	Li.N. (2014). Effects of tillage practice and poly-coated urea on N2O from summer maize field. Shandong Agricultural University. (Tainan, China)
1757	36.18	117.12	maize	1.43	7.70	7.48	1.00	21.24	24.70	416.40	699.60	225.00	10.42	Li.N. (2014). Effects of tillage practice and poly-coated urea on N2O from summer maize field. Shandong Agricultural University. (Tainan, China)
1758	36.18	117.12	maize	1.43	7.70	7.48	1.00	21.24	24.70	416.40	699.60	225.00	5.27	Li.N. (2014). Effects of tillage practice and poly-coated urea on N2O from summer maize field. Shandong Agricultural University. (Tainan, China)
1759	36.18	117.12	maize	1.43	7.70	7.48	1.00	21.24	24.70	416.40	699.60	225.00	6.71	Li.N. (2014). Effects of tillage practice and poly-coated urea on N2O from summer maize field. Shandong Agricultural University. (Tainan, China)
1760	36.18	117.12	maize	1.43	7.70	7.48	1.00	21.24	24.70	416.40	699.60	225.00	5.89	Li.N. (2014). Effects of tillage practice and poly-coated urea on N2O from summer maize field. Shandong Agricultural University. (Tainan, China)
1761	36.18	117.12	maize	1.43	7.70	7.48	1.00	21.24	24.70	416.40	699.60	0.00	0.70	Li.N. (2014). Effects of tillage practice and poly-coated urea on N2O from summer maize field. Shandong Agricultural University. (Tainan, China)
1762	36.18	117.12	maize	1.43	7.70	7.48	1.00	21.24	24.70	416.40	699.60	225.00	6.86	Li.N. (2014). Effects of tillage practice and poly-coated urea on N2O from summer maize field. Shandong Agricultural University. (Tainan, China)
1763	36.18	117.12	maize	1.43	7.70	7.48	1.00	21.24	24.70	416.40	699.60	225.00	3.76	Li.N. (2014). Effects of tillage practice and poly-coated urea on N2O from summer maize field. Shandong Agricultural University. (Tainan, China)
1764	36.18	117.12	maize	1.43	7.70	7.48	1.00	21.24	24.70	416.40	699.60	225.00	2.61	Li.N. (2014). Effects of tillage practice and poly-coated urea on N2O from summer maize field. Shandong Agricultural University. (Tainan, China)
1765	36.18	117.12	maize	1.43	7.70	7.48	1.00	21.24	24.70	416.40	699.60	225.00	3.22	Li.N. (2014). Effects of tillage practice and poly-coated urea on N2O from summer maize field. Shandong Agricultural University. (Tainan, China)
1766	35.09	115.51	maize	1.49	8.05	8.43	0.81	16.00	26.20	404.40	397.20	0.00	0.96	Xia Weibin, et al. (2014). Effects of wheat straw return ways on integrated global warming effect from dryland soil in north China Plain. (in Chinese with English abstract). Soils. 46(6):1010-1016.
1767	35.09	115.51	maize	1.49	8.05	8.43	0.81	16.00	26.20	404.40	397.20	225.00	2.92	Xia Weibin, et al. (2014). Effects of wheat straw return ways on integrated global warming effect from dryland soil in north China Plain. (in Chinese with English abstract). Soils. 46(6):1010-1016.
1768	35.09	115.51	maize	1.49	8.05	8.43	0.81	16.00	26.20	404.40	397.20	225.00	5.20	Xia Weibin, et al. (2014). Effects of wheat straw return ways on integrated global warming effect from dryland soil in north China Plain. (in Chinese with English abstract). Soils. 46(6):1010-1016.
1769	28.30	113.84	maize	1.36	5.75	8.45	1.51	31.71	23.60	1126.80	466.80	0.00	0.04	Yan W. (2014). Effects of slow-controlled release fertilizer and reducing nitrogen application on loss and utilization of nitrogen and upland crop yield. (in Chinese with English abstract). Hunan Agricultural University. (Changsha, China)
1770	28.30	113.84	maize	1.36	5.75	8.45	1.51	31.71	23.60	1126.80	466.80	240.00	0.32	Yan W. (2014). Effects of slow-controlled release fertilizer and reducing nitrogen application on loss and utilization of nitrogen and upland crop yield. (in Chinese with English abstract). Hunan Agricultural University. (Changsha, China)
1771	41.15	121.35	maize	1.33	7.10	13.17	1.41	19.30	19.70	673.50	858.00	0.00	0.82	Yang L. et al. (2014). Modeling impacts of alternative farming management practices on carbon sequestration and mitigating N2O emissions from spring maize fields. (in Chinese with English abstract). Plant Nutrition and Fertilizer Science. 20(1):75-86.
1772	41.15	121.35	maize	1.33	7.10	13.17	1.41	19.30	19.70	673.50	858.00	265.00	1.11	Yang L. et al. (2014). Modeling impacts of alternative farming management practices on carbon sequestration and mitigating N2O emissions from spring maize fields. (in Chinese with English abstract). Plant Nutrition and Fertilizer Science. 20(1):75-86.
1773	41.15	121.35	maize	1.33	7.10	13.17	1.41	19.30	19.70	673.50	858.00	210.00	1.03	Yang L. et al. (2014). Modeling impacts of alternative farming management practices on carbon sequestration and mitigating N2O emissions from spring maize fields. (in Chinese with English abstract). Plant Nutrition and Fertilizer Science. 20(1):75-86.
1774	41.15	121.35	maize	1.33	7.10	13.17	1.41	19.30	19.70	673.50	858.00	265.00	1.07	Yang L. et al. (2014). Modeling impacts of alternative farming management practices on carbon sequestration and mitigating N2O emissions from spring maize fields. (in Chinese with English abstract). Plant Nutrition and Fertilizer Science. 20(1):75-86.
1775	41.15	121.35	maize	1.33	7.10	13.17	1.41	19.30	19.70	673.50	858.00	210.00	0.96	Yang L. et al. (2014). Modeling impacts of alternative farming management practices on carbon sequestration and mitigating N2O emissions from spring maize fields. (in Chinese with English abstract). Plant Nutrition and Fertilizer Science. 20(1):75-86.
1776	41.15	121.35	maize	1.33	7.10	13.17	1.41	19.30	19.70	673.50	858.00	210.00	0.84	Yang L. et al. (2014). Modeling impacts of alternative farming management practices on carbon sequestration and mitigating N2O emissions from spring maize fields. (in Chinese with English abstract). Plant Nutrition and Fertilizer Science. 20(1):75-86.
1777	45.84	126.83	maize	1.12	6.54	19.20	1.62	23.31	19.80	558.00	964.50	0.00	0.86	Zheng Y. (2014). Effect of Nitrogen application methods on N2O, CO2 emissions and nitrogen balance in typical black soil farmland. (in Chinese with English abstract). Hainan University. (Hainan, China)
1778	45.84	126.83	maize	1.12	6.54	19.20	1.62	23.31	19.80	558.00	964.50	180.00	2.43	Zheng Y. (2014). Effect of Nitrogen application methods on N2O, CO2 emissions and nitrogen balance in typical black soil farmland. (in Chinese with English abstract). Hainan University. (Hainan, China)
1779	45.84	126.83	maize	1.12	6.54	19.20	1.62	23.31	19.80	558.00	964.50	180.00	2.38	Zheng Y. (2014). Effect of Nitrogen application methods on N2O, CO2 emissions and nitrogen balance in typical black soil farmland. (in Chinese with English abstract). Hainan University. (Hainan, China)
1780	45.84	126.83	maize	1.12	6.54	19.20	1.62	23.31	19.80	558.00	964.50	240.00	3.	



1915	34.20	108.24	maize	1.44	8.20	6.95	0.92	54.00	19.73	368.25	758.83	150.00	0.37	Wang D.L. et al. (2017). Effects of gravel mulching on greenhouse gas emissions intensity in wheat-maize rotation system. (in Chinese with English abstract). Transactions of the Chinese Society of Agricultural Engineering. 33(17):208-215.
1916	34.20	108.24	maize	1.44	8.20	6.95	0.92	54.00	19.73	368.25	758.83	150.00	0.35	Wang D.L. et al. (2017). Effects of gravel mulching on greenhouse gas emissions intensity in wheat-maize rotation system. (in Chinese with English abstract). Transactions of the Chinese Society of Agricultural Engineering. 33(17):208-215.
1917	34.20	108.24	maize	1.44	8.20	6.95	0.92	54.00	19.73	368.25	758.83	150.00	0.41	Wang D.L. et al. (2017). Effects of gravel mulching on greenhouse gas emissions intensity in wheat-maize rotation system. (in Chinese with English abstract). Transactions of the Chinese Society of Agricultural Engineering. 33(17):208-215.
1918	34.20	108.24	maize	1.44	8.20	6.95	0.92	54.00	19.73	368.25	758.83	150.00	0.40	Wang D.L. et al. (2017). Effects of gravel mulching on greenhouse gas emissions intensity in wheat-maize rotation system. (in Chinese with English abstract). Transactions of the Chinese Society of Agricultural Engineering. 33(17):208-215.
1919	35.28	107.88	maize	1.41	8.00	6.50	0.80	36.00	19.39	439.90	492.94	150.00	0.46	Wu D.F. et al. (2016). Effect of reduced nitrogen fertilization on sprime maize production and environmental impacts in rainfed areas. (in Chinese with English abstract). Journal of Agro-Environment Science. 35(6):1202-1209.
1920	35.28	107.88	maize	1.41	8.00	6.50	0.80	36.00	19.39	439.90	492.94	150.00	1.40	Wu D.F. et al. (2016). Effect of reduced nitrogen fertilization on sprime maize production and environmental impacts in rainfed areas. (in Chinese with English abstract). Journal of Agro-Environment Science. 35(6):1202-1209.
1921	35.28	107.88	maize	1.41	8.00	6.50	0.80	36.00	19.39	439.90	492.94	150.00	1.00	Wu D.F. et al. (2016). Effect of reduced nitrogen fertilization on sprime maize production and environmental impacts in rainfed areas. (in Chinese with English abstract). Journal of Agro-Environment Science. 35(6):1202-1209.
1922	35.28	107.88	maize	1.41	8.00	6.50	0.80	36.00	19.39	437.56	492.94	200.00	1.30	Wu D.F. et al. (2016). Effect of reduced nitrogen fertilization on sprime maize production and environmental impacts in rainfed areas. (in Chinese with English abstract). Journal of Agro-Environment Science. 35(6):1202-1209.
1923	35.28	107.88	maize	1.41	8.00	6.50	0.80	36.00	19.39	437.56	492.94	150.00	0.90	Wu D.F. et al. (2016). Effect of reduced nitrogen fertilization on sprime maize production and environmental impacts in rainfed areas. (in Chinese with English abstract). Journal of Agro-Environment Science. 35(6):1202-1209.
1924	35.28	107.88	maize	1.41	8.00	6.50	0.80	36.00	19.39	237.90	492.94	200.00	0.80	Wu D.F. et al. (2016). Effect of reduced nitrogen fertilization on sprime maize production and environmental impacts in rainfed areas. (in Chinese with English abstract). Journal of Agro-Environment Science. 35(6):1202-1209.
1925	35.28	107.88	maize	1.41	8.00	6.50	0.80	36.00	19.39	237.90	492.94	150.00	0.70	Wu D.F. et al. (2016). Effect of reduced nitrogen fertilization on sprime maize production and environmental impacts in rainfed areas. (in Chinese with English abstract). Journal of Agro-Environment Science. 35(6):1202-1209.
1926	35.20	108.24	maize	1.43	8.32	8.23	0.95	40.00	19.73	368.25	758.83	0.00	0.18	Feng H. et al. (2017). Effect of film mulching patterns on carbon sequestration in wheat maize rotation system. (in Chinese with English abstract). Transactions of the Chinese Society for Agricultural Machinery. 48(4):180-189.
1927	34.20	108.24	maize	1.43	8.32	8.23	0.95	40.00	19.73	368.25	758.83	225.00	0.25	Feng H. et al. (2017). Effect of film mulching patterns on carbon sequestration in wheat maize rotation system. (in Chinese with English abstract). Transactions of the Chinese Society for Agricultural Machinery. 48(4):180-189.
1928	34.20	108.24	maize	1.43	8.32	8.23	0.95	40.00	19.73	368.25	758.83	225.00	0.32	Feng H. et al. (2017). Effect of film mulching patterns on carbon sequestration in wheat maize rotation system. (in Chinese with English abstract). Transactions of the Chinese Society for Agricultural Machinery. 48(4):180-189.
1929	34.20	108.24	maize	1.43	8.32	8.23	0.95	40.00	19.73	368.25	758.83	225.00	0.47	Feng H. et al. (2017). Effect of film mulching patterns on carbon sequestration in wheat maize rotation system. (in Chinese with English abstract). Transactions of the Chinese Society for Agricultural Machinery. 48(4):180-189.
1930	34.20	108.24	maize	1.43	8.32	8.23	0.95	40.00	19.73	368.25	758.83	225.00	0.54	Feng H. et al. (2017). Effect of film mulching patterns on carbon sequestration in wheat maize rotation system. (in Chinese with English abstract). Transactions of the Chinese Society for Agricultural Machinery. 48(4):180-189.
1931	45.30	124.48	maize	1.41	7.60	13.23	1.40	21.72	20.20	529.50	730.50	0.00	0.45	Gao H.J. et al. (2017). Emission characteristics of greenhouse gas from maize field of black soil region under long-term fertilization. (in Chinese with English abstract). Journal of Agricultural Resources and Environment. 34(5):422-430.
1932	43.30	124.48	maize	1.41	7.60	13.23	1.40	21.72	20.20	529.50	730.50	165.00	1.41	Gao H.J. et al. (2017). Emission characteristics of greenhouse gas from maize field of black soil region under long-term fertilization. (in Chinese with English abstract). Journal of Agricultural Resources and Environment. 34(5):422-430.
1933	43.30	124.48	maize	1.41	7.60	13.23	1.40	21.72	20.20	529.50	730.50	165.00	1.55	Gao H.J. et al. (2017). Emission characteristics of greenhouse gas from maize field of black soil region under long-term fertilization. (in Chinese with English abstract). Journal of Agricultural Resources and Environment. 34(5):422-430.
1934	43.30	124.48	maize	1.41	7.60	13.23	1.40	21.72	20.20	529.50	730.50	165.00	2.30	Gao H.J. et al. (2017). Emission characteristics of greenhouse gas from maize field of black soil region under long-term fertilization. (in Chinese with English abstract). Journal of Agricultural Resources and Environment. 34(5):422-430.
1935	43.30	124.48	maize	1.41	7.60	13.23	1.40	21.72	20.20	529.50	730.50	215.00	1.33	Gao H.J. et al. (2017). Emission characteristics of greenhouse gas from maize field of black soil region under long-term fertilization. (in Chinese with English abstract). Journal of Agricultural Resources and Environment. 34(5):422-430.
1936	45.49	126.48	maize	1.48	6.85	16.65	1.14	43.00	19.90	489.00	963.00	0.00	0.21	Jiang H.M. et al. (2017). Effects of combined application of nitrogen from different source on nitrogen utilization of sprime maize and sustainability of soil fertility in Northeast China. (in Chinese with English abstract). Journal of Plant Nutrition and Fertilizers. 23(4):933-941.
1937	45.49	126.48	maize	1.48	6.85	16.65	1.14	43.00	19.90	489.00	963.00	165.00	0.82	Jiang H.M. et al. (2017). Effects of combined application of nitrogen from different source on nitrogen utilization of sprime maize and sustainability of soil fertility in Northeast China. (in Chinese with English abstract). Journal of Plant Nutrition and Fertilizers. 23(4):933-941.
1938	45.49	126.48	maize	1.48	6.85	16.65	1.14	43.00	19.90	489.00	963.00	165.00	0.38	Jiang H.M. et al. (2017). Effects of combined application of nitrogen from different source on nitrogen utilization of sprime maize and sustainability of soil fertility in Northeast China. (in Chinese with English abstract). Journal of Plant Nutrition and Fertilizers. 23(4):933-941.
1939	43.56	126.28	maize	1.36	6.57	11.37	1.21	45.00	17.17	847.98	844.35	0.00	0.46	Lu Y.J. et al. (2016). Effects of soil straw return and nitrogen on sprime maize yield, greenhouse gas emission and soil enzyme activity in black soils. (in Chinese with English abstract). Chinese Journal of Eco-Agriculture. 24(11):1456-1463.
1940	43.56	126.28	maize	1.36	6.57	11.37	1.21	45.00	17.17	847.98	844.35	120.00	1.28	Lu Y.J. et al. (2016). Effects of soil straw return and nitrogen on sprime maize yield, greenhouse gas emission and soil enzyme activity in black soils. (in Chinese with English abstract). Chinese Journal of Eco-Agriculture. 24(11):1456-1463.
1941	43.56	126.28	maize	1.36	6.57	11.37	1.21	45.00	17.17	847.98	844.35	240.00	3.20	Lu Y.J. et al. (2016). Effects of soil straw return and nitrogen on sprime maize yield, greenhouse gas emission and soil enzyme activity in black soils. (in Chinese with English abstract). Chinese Journal of Eco-Agriculture. 24(11):1456-1463.
1942	43.56	126.28	maize	1.36	6.57	11.37	1.21	45.00	17.17	847.98	844.35	300.00	3.72	Lu Y.J. et al. (2016). Effects of soil straw return and nitrogen on sprime maize yield, greenhouse gas emission and soil enzyme activity in black soils. (in Chinese with English abstract). Chinese Journal of Eco-Agriculture. 24(11):1456-1463.
1943	41.15	121.35	maize	1.40	7.12	13.17	1.41	21.29	21.40	508.50	979.50	0.00	0.82	Liu H.Y. (2016). Quantitative assessment on effects of N application on maize with integrated evaluation index. (in Chinese with English abstract). Soil and Fertilizer Sciences in China. (6):106-110.
1944	41.15	121.35	maize	1.40	7.12	13.17	1.41	21.29	21.40	508.50	979.50	263.30	1.43	Liu H.Y. (2016). Quantitative assessment on effects of N application on maize with integrated evaluation index. (in Chinese with English abstract). Soil and Fertilizer Sciences in China. (6):106-110.
1945	41.15	121.35	maize	1.40	7.12	13.17	1.41	21.29	21.40	508.50	979.50	210.00	1.29	Liu H.Y. (2016). Quantitative assessment on effects of N application on maize with integrated evaluation index. (in Chinese with English abstract). Soil and Fertilizer Sciences in China. (6):106-110.
1946	41.15	121.35	maize	1.40	7.12	13.17	1.41	21.29	21.40	508.50	979.50	250.00	1.50	Liu H.Y. (2016). Quantitative assessment on effects of N application on maize with integrated evaluation index. (in Chinese with English abstract). Soil and Fertilizer Sciences in China. (6):106-110.
1947	40.26	106.34	maize	1.37	8.20	7.42	0.80	23.00	19.90	61.50	732.00	0.00	0.36	Wu Y. et al. (2018). Effects of three soil amendments on greenhouse gas emissions from corn fields in the Heiao irrigation district. (in Chinese with English abstract). Environmental Science. 39(1):310-320.
1948	40.26	106.34	maize	1.37	8.20	7.42	0.80	23.00	19.90	61.50	732.00	487.50	5.52	Wu Y. et al. (2018). Effects of three soil amendments on greenhouse gas emissions from corn fields in the Heiao irrigation district. (in Chinese with English abstract). Environmental Science. 39(1):310-320.
1949	38.80	115.47	maize	1.60	8.50	8.00	0.89	9.00	24.40	290.40	571.20	0.00	0.20	Wei S.S. et al. (2016). Effects of nitrinryr-nitrogen (N) fertilizer application rates on N utilization and N2O emission in summer maize field. (in Chinese with English abstract). Chinese Journal of Applied Ecology. 27(4):1163-1168.
1950	38.80	115.47	maize	1.60	8.50	8.00	0.89	9.00	24.40	290.40	571.20	180.00	0.74	Wei S.S. et al. (2016). Effects of nitrinryr-nitrogen (N) fertilizer application rates on N utilization and N2O emission in summer maize field. (in Chinese with English abstract). Chinese Journal of Applied Ecology. 27(4):1163-1168.
1951	38.80	115.47	maize	1.60	8.50	8.00	0.89	9.00	24.40	290.40	571.20	270.00	1.18	Wei S.S. et al. (2016). Effects of nitrinryr-nitrogen (N) fertilizer application rates on N utilization and N2O emission in summer maize field. (in Chinese with English abstract). Chinese Journal of Applied Ecology. 27(4):1163-1168.
1952	38.80	115.47	maize	1.60	8.50	8.00	0.89	9.00	24.40	290.40	571.20	360.00	1.86	Wei S.S. et al. (2016). Effects of nitrinryr-nitrogen (N) fertilizer application rates on N utilization and N2O emission in summer maize field. (in Chinese with English abstract). Chinese Journal of Applied Ecology. 27(4):1163-1168.
1953	38.80	115.47	maize	1.40	8.30	7.83	0.87	9.00	24.30	580.80	571.20	0.00	0.20	Wang Y.Q. et al. Nitrogen fertilizers application combined with N conversion control additives reducing N2O emissions under summer maize-winter wheat cropping system. (in Chinese with English abstract). Transactions of the Chinese Society of Agricultural Engineering. 33(6):184-191.
1954	38.80	115.47	maize	1.40	8.30	7.83	0.87	9.00	24.30	580.80	571.20	392.00	2.48	Wang Y.Q. et al. Nitrogen fertilizers application combined with N conversion control additives reducing N2O emissions under summer maize-winter wheat cropping system. (in Chinese with English abstract). Transactions of the Chinese Society of Agricultural Engineering. 33(6):184-191.
1955	38.80	115.47	maize	1.40	8.30	7.83	0.87	9.00	24.30	580.80	571.20	300.00	1.38	Wang Y.Q. et al. Nitrogen fertilizers application combined with N conversion control additives reducing N2O emissions under summer maize-winter wheat cropping system. (in Chinese with English abstract). Transactions of the Chinese Society of Agricultural Engineering. 33(6):184-191.
1956	30.05	104.34	maize	1.40	7.90	5.74	0.53	37.00	17.25	644.10	755.62	0.00	0.08	Liu H.T. et al. (2016). Effects of different cultivation and mulching methods on nitrous oxide emission in slope purple soil. (in Chinese with English abstract). Southwest China Journal of Agricultural Sciences. 29(7):1579-1583.
1957	30.05	104.34	maize	1.40	7.90	5.74	0.53	37.00	17.25	644.10	755.62	300.00	0.21	Liu H.T. et al. (2016). Effects of different cultivation and mulching methods on nitrous oxide emission in slope purple soil. (in Chinese with English abstract). Southwest China Journal of Agricultural Sciences. 29(7):1579-1583.
1958	30.05	104.34	maize	1.40	7.90	5.74	0.53	37.00	17.25	644.10	755.62	300.00	0.36	Liu H.T. et al. (2016). Effects of different cultivation and mulching methods on nitrous oxide emission in slope purple soil. (in Chinese with English abstract). Southwest China Journal of Agricultural Sciences. 29(7):1579-1583.
1959	30.05	104.34	maize	1.40	7.90	5.74	0.53	37.00	17.25	644.10	755.62	300.00	0.36	Liu H.T. et al. (2016). Effects of different cultivation and mulching methods on nitrous oxide emission in slope purple soil. (in Chinese with English abstract). Southwest China Journal of Agricultural Sciences. 29(7):1579-1583.
1960	30.05	104.34	maize	1.40	7.90	5.74	0.53	37.00	17.25	644.10	755.62	300.00	0.24	Liu H.T. et al. (2016). Effects of different cultivation and mulching methods on nitrous oxide emission in slope purple soil. (in Chinese with English abstract). Southwest China Journal of Agricultural Sciences. 29(7):1579-1583.
1961	30.05	104.34	maize	1.40	7.90	5.74	0.53	37.00	17.25	644.10	755.62	300.00	0.46	Liu H.T. et al. (2016). Effects of different cultivation and mulching methods on nitrous oxide emission in slope purple soil. (in Chinese with English abstract). Southwest China Journal of Agricultural Sciences. 29(7):1579-1583.
1962	30.05	104.34	maize	1.40	7.90	5.74	0.53	37.00	17.25	644.10	755.62	300.00	0.41	Liu H.T. et al. (2016). Effects of different cultivation and mulching methods on nitrous oxide emission in slope purple soil. (in Chinese with English abstract). Southwest China Journal of Agricultural Sciences. 29(7):1579-1583.
1963	43.29	124.45	maize	1.40	5.74	10.96	0.95	22.52	20.20	417.00	942.00	0.00	0.10	Han W.J. et al. (2016). Study on the effect of new-type fertilizer application on sprime maize production and its environmental impact in black soil area. (in Chinese with English abstract). Journal of Soil and Water Conservation. 30(2):307-311.
1964	43.29	124.45	maize	1.40	5.74	10.96	0.95	22.52	20.20	417.00	942.00	224.00	0.92	Han W.J. et al. (2016). Study on the effect of new-type fertilizer application on sprime maize production and its environmental impact in black soil area. (in Chinese with English abstract). Journal of Soil and Water Conservation. 30(2):307-311.
1965	43.29	124.45	maize	1.40	5.74	10.96	0.95	22.52	20.20	417.00	942.00	224.00	0.95	Han W.J. et al. (2016). Study on the effect of new-type fertilizer application on sprime maize production and its environmental impact in black soil area. (in Chinese with English abstract). Journal of Soil and Water Conservation. 30(2):307-311.
1966	43.29	124.45	maize	1.40	5.74	10.96	0.95	22.52	20.20	417.00	942.00	224.00	0.93	Han W.J. et al. (2016). Study on the effect of new-type fertilizer application on sprime maize production and its environmental impact in black soil area. (in Chinese with English abstract). Journal of Soil and Water Conservation. 30(2):307-311.
1967	43.29	124.45	maize	1.40	5.74	10.96	0.95	22.52	20.08	644.10	755.62	0.00	1.07	Han W.J. et al. (2016). Study on the effect of new-type fertilizer application on sprime maize production and its environmental impact in black soil area. (in Chinese with English abstract). Journal of Soil and Water Conservation. 30(2):307-311.
1968	35.30	113.92	maize	1.37	8.05	8.45	1.08	25.50	12.29	334.80	880.20	225.00	6.23	Han J.M. et al. (2016). Contrasting effect of straw return and its biochar on changes in crop yield and integrated global warming effects under different nitrogen levels. (in Chinese with English abstract). Journal of Nanjing Agricultural University. 39(6):986-995.
1969	35.30	113.92	maize	1.37	8.05	8.45	1.08	25.50	12.29	334.80	880.20	205.50	6.13	Han J.M. et al. (2016). Contrasting effect of straw return and its biochar on changes in crop yield and integrated global warming effects under different nitrogen levels. (in Chinese with English abstract). Journal of Nanjing Agricultural University. 39(6):986-995.
1970	35.30	113.92	maize	1.37	8.05	8.45	1.08	25.50	12.29	334.80	880.20	180.00	3.83	Han J.M. et al. (2016). Contrasting effect of straw return and its biochar on changes in crop yield and integrated global warming effects under different nitrogen levels. (in Chinese with English abstract). Journal of Nanjing Agricultural University. 39(6):986-995.
1971	34.17	108.04	maize	1.44	8.40	8.15	0.90	17.00	22.80	508.50	774.00	0.00	0.18	Cheng G. et al. (2017). Comparative analysis on effect of wheat straw and its biochar amendment on net global warming potential under wheat-maize rotation ecosystem in the Guanzhong Plain. (in Chinese with English abstract). Environmental Science. 38(2):792-801.
1972	34.17	108.04	maize	1.44	8.40	8.15	0.90	17.00	22.80	508.50	774.00	225.00	0.71	Cheng G. et al. (2017). Comparative analysis on effect of wheat straw and its biochar amendment on net global warming potential under wheat-maize rotation ecosystem in the Guanzhong Plain. (in Chinese with English abstract). Environmental Science. 38(2):792-801.
1973	34.17	108.04	maize	1.44	8.40	8.15	0.90	17.00	22.80	508.50	774.00	225.00	0.76	Cheng G. et al. (2017). Comparative analysis on effect of wheat straw and its biochar amendment on net global warming potential under wheat-maize rotation ecosystem in the Guanzhong Plain. (in Chinese with English abstract). Environmental Science. 38(2):792-801.
1974	30.05	104.34	maize	1.40	7.90	5.34	0.53	37.00	17.25					

2011	44.32	125.42	maize	1.37	7.44	21.70	2.62	25.23	20.00	318.00	1059.00	175.00	6.62	Yan L. et al. (2016). Effects of improving nitrogen management on nitrogen utilization, nitrogen balance, and reactive nitrogen losses in a Mollisol with maize monoculture in Northeast China. <i>Environmental Science &amp; Pollution Research</i> . 23(5):4576-4584.
2012	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.60	562.80	792.00	0.00	0.10	Huang T. et al. (2017). Effect of fertilizer N rates and straw management on yield-scaled nitrous oxide emissions in a maize-wheat double cropping system. <i>Field Crops Research</i> . 204: 1-11.
2013	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.60	562.80	792.00	212.00	1.10	Huang T. et al. (2017). Effect of fertilizer N rates and straw management on yield-scaled nitrous oxide emissions in a maize-wheat double cropping system. <i>Field Crops Research</i> . 204: 1-11.
2014	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.60	562.80	792.00	260.00	1.79	Huang T. et al. (2017). Effect of fertilizer N rates and straw management on yield-scaled nitrous oxide emissions in a maize-wheat double cropping system. <i>Field Crops Research</i> . 204: 1-11.
2015	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.30	648.00	656.40	0.00	0.17	Huang T. et al. (2017). Effect of fertilizer N rates and straw management on yield-scaled nitrous oxide emissions in a maize-wheat double cropping system. <i>Field Crops Research</i> . 204: 1-11.
2016	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.30	648.00	656.40	130.00	0.74	Huang T. et al. (2017). Effect of fertilizer N rates and straw management on yield-scaled nitrous oxide emissions in a maize-wheat double cropping system. <i>Field Crops Research</i> . 204: 1-11.
2017	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.30	648.00	656.40	260.00	1.99	Huang T. et al. (2017). Effect of fertilizer N rates and straw management on yield-scaled nitrous oxide emissions in a maize-wheat double cropping system. <i>Field Crops Research</i> . 204: 1-11.
2018	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.50	480.00	792.00	0.00	0.14	Huang T. et al. (2017). Effect of fertilizer N rates and straw management on yield-scaled nitrous oxide emissions in a maize-wheat double cropping system. <i>Field Crops Research</i> . 204: 1-11.
2019	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.50	480.00	792.00	130.00	0.40	Huang T. et al. (2017). Effect of fertilizer N rates and straw management on yield-scaled nitrous oxide emissions in a maize-wheat double cropping system. <i>Field Crops Research</i> . 204: 1-11.
2020	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.50	480.00	792.00	260.00	0.62	Huang T. et al. (2017). Effect of fertilizer N rates and straw management on yield-scaled nitrous oxide emissions in a maize-wheat double cropping system. <i>Field Crops Research</i> . 204: 1-11.
2021	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.50	480.00	792.00	0.00	0.19	Huang T. et al. (2017). Effect of fertilizer N rates and straw management on yield-scaled nitrous oxide emissions in a maize-wheat double cropping system. <i>Field Crops Research</i> . 204: 1-11.
2022	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.50	480.00	792.00	159.00	1.17	Huang T. et al. (2017). Effect of fertilizer N rates and straw management on yield-scaled nitrous oxide emissions in a maize-wheat double cropping system. <i>Field Crops Research</i> . 204: 1-11.
2023	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.50	480.00	792.00	260.00	2.71	Huang T. et al. (2017). Effect of fertilizer N rates and straw management on yield-scaled nitrous oxide emissions in a maize-wheat double cropping system. <i>Field Crops Research</i> . 204: 1-11.
2024	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.50	480.00	792.00	0.00	0.22	Huang T. et al. (2017). Effect of fertilizer N rates and straw management on yield-scaled nitrous oxide emissions in a maize-wheat double cropping system. <i>Field Crops Research</i> . 204: 1-11.
2025	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.50	480.00	792.00	130.00	1.24	Huang T. et al. (2017). Effect of fertilizer N rates and straw management on yield-scaled nitrous oxide emissions in a maize-wheat double cropping system. <i>Field Crops Research</i> . 204: 1-11.
2026	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.50	480.00	792.00	260.00	2.39	Huang T. et al. (2017). Effect of fertilizer N rates and straw management on yield-scaled nitrous oxide emissions in a maize-wheat double cropping system. <i>Field Crops Research</i> . 204: 1-11.
2027	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.50	480.00	792.00	0.00	0.17	Huang T. et al. (2017). Effect of fertilizer N rates and straw management on yield-scaled nitrous oxide emissions in a maize-wheat double cropping system. <i>Field Crops Research</i> . 204: 1-11.
2028	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.50	480.00	792.00	130.00	0.50	Huang T. et al. (2017). Effect of fertilizer N rates and straw management on yield-scaled nitrous oxide emissions in a maize-wheat double cropping system. <i>Field Crops Research</i> . 204: 1-11.
2029	39.48	116.28	maize	1.31	8.10	7.10	0.80	28.00	23.50	480.00	792.00	260.00	0.71	Huang T. et al. (2017). Effect of fertilizer N rates and straw management on yield-scaled nitrous oxide emissions in a maize-wheat double cropping system. <i>Field Crops Research</i> . 204: 1-11.
2030	35.00	114.24	maize	1.51	8.80	7.40	0.85	16.20	25.30	446.40	573.60	0.00	0.57	Niu Y. et al. (2017). Yield-scaled N <sub>2</sub> O emissions were effectively reduced by biochar amendment of sandy loam soil under maize-wheat rotation in the North China Plain. <i>Atmospheric Environment</i> . 170: 58-70.
2031	35.00	114.24	maize	1.51	8.80	7.40	0.85	16.20	25.30	446.40	573.60	200.00	3.30	Niu Y. et al. (2017). Yield-scaled N <sub>2</sub> O emissions were effectively reduced by biochar amendment of sandy loam soil under maize-wheat rotation in the North China Plain. <i>Atmospheric Environment</i> . 170: 58-70.
2032	39.58	116.59	maize	1.48	8.80	0.70	0.75	16.27	24.90	402.00	808.80	0.00	0.47	Li H R. et al. (2018). Effect of different irrigation and fertilization managements on N <sub>2</sub> O emissions and yield in summer maize-winter wheat field. (in Chinese with English abstract). <i>Transactions of the Chinese Society of Agricultural Engineering</i> . 34(16):103-112.
2033	39.58	116.59	maize	1.48	8.80	0.70	0.75	16.27	24.90	402.00	808.80	405.50	3.87	Li H R. et al. (2018). Effect of different irrigation and fertilization managements on N <sub>2</sub> O emissions and yield in summer maize-winter wheat field. (in Chinese with English abstract). <i>Transactions of the Chinese Society of Agricultural Engineering</i> . 34(16):103-112.
2034	39.58	116.59	maize	1.48	8.80	0.70	0.75	16.27	24.90	402.00	808.80	205.20	1.20	Li H R. et al. (2018). Effect of different irrigation and fertilization managements on N <sub>2</sub> O emissions and yield in summer maize-winter wheat field. (in Chinese with English abstract). <i>Transactions of the Chinese Society of Agricultural Engineering</i> . 34(16):103-112.
2035	39.58	116.59	maize	1.48	8.80	0.70	0.75	16.27	24.90	402.00	808.80	205.20	1.26	Li H R. et al. (2018). Effect of different irrigation and fertilization managements on N <sub>2</sub> O emissions and yield in summer maize-winter wheat field. (in Chinese with English abstract). <i>Transactions of the Chinese Society of Agricultural Engineering</i> . 34(16):103-112.
2036	39.58	116.59	maize	1.48	8.80	0.70	0.75	16.27	24.90	402.00	808.80	282.00	2.52	Li H R. et al. (2018). Effect of different irrigation and fertilization managements on N <sub>2</sub> O emissions and yield in summer maize-winter wheat field. (in Chinese with English abstract). <i>Transactions of the Chinese Society of Agricultural Engineering</i> . 34(16):103-112.
2037	34.93	110.72	maize	1.44	8.30	7.27	0.95	34.09	10.08	226.80	985.50	0.00	0.48	Liu C. et al. (2014). Three-year measurements of nitrous oxide emissions from cotton and wheat-maize rotational cropping systems. <i>Atmospheric Environment</i> . 96(7):201-208.
2038	34.93	110.72	maize	1.44	8.30	7.27	0.95	34.09	10.08	226.80	985.50	180.00	1.32	Liu C. et al. (2014). Three-year measurements of nitrous oxide emissions from cotton and wheat-maize rotational cropping systems. <i>Atmospheric Environment</i> . 96(7):201-208.
2039	34.55	110.42	maize	1.44	8.30	8.78	0.95	18.00	23.30	424.50	984.00	120.00	3.73	Liu C. et al. (2014). Three-year measurements of nitrous oxide emissions from cotton and wheat-maize rotational cropping systems. <i>Atmospheric Environment</i> . 96(7):201-208.
2040	34.55	110.42	maize	1.44	8.30	8.78	0.95	18.00	23.30	424.50	984.00	210.00	2.96	Liu C. et al. (2014). Three-year measurements of nitrous oxide emissions from cotton and wheat-maize rotational cropping systems. <i>Atmospheric Environment</i> . 96(7):201-208.
2041	34.55	110.42	maize	1.44	8.30	8.78	0.95	18.00	23.30	424.50	984.00	250.00	3.17	Liu C. et al. (2014). Three-year measurements of nitrous oxide emissions from cotton and wheat-maize rotational cropping systems. <i>Atmospheric Environment</i> . 96(7):201-208.
2042	37.38	112.51	maize	1.33	8.50	9.45	1.79	16.15	20.60	448.80	765.60	0.00	0.25	Zhu Y. C. et al. (2016). Effects of controlled release fertilizer and nitrification inhibitor additions on nitrous oxide emissions from spring maize field in Northern China. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 35(7):1421-1428.
2043	37.38	112.51	maize	1.33	8.50	9.45	1.79	16.15	20.60	448.80	765.60	180.00	1.25	Zhu Y. C. et al. (2016). Effects of controlled release fertilizer and nitrification inhibitor additions on nitrous oxide emissions from spring maize field in Northern China. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 35(7):1421-1428.
2044	37.38	112.51	maize	1.33	8.50	9.45	1.79	16.15	21.20	285.60	363.60	0.00	0.15	Zhu Y. C. et al. (2016). Effects of controlled release fertilizer and nitrification inhibitor additions on nitrous oxide emissions from spring maize field in Northern China. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 35(7):1421-1428.
2045	37.38	112.51	maize	1.33	8.50	9.45	1.79	16.15	21.20	285.60	363.60	180.00	1.21	Zhu Y. C. et al. (2016). Effects of controlled release fertilizer and nitrification inhibitor additions on nitrous oxide emissions from spring maize field in Northern China. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 35(7):1421-1428.
2046	37.38	112.51	maize	1.33	8.50	9.45	1.79	16.15	19.90	410.40	338.40	0.00	0.34	Zhu Y. C. et al. (2016). Effects of controlled release fertilizer and nitrification inhibitor additions on nitrous oxide emissions from spring maize field in Northern China. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 35(7):1421-1428.
2047	37.38	112.51	maize	1.33	8.50	9.45	1.79	16.15	19.90	410.40	338.40	180.00	1.70	Zhu Y. C. et al. (2016). Effects of controlled release fertilizer and nitrification inhibitor additions on nitrous oxide emissions from spring maize field in Northern China. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 35(7):1421-1428.
2048	37.38	112.51	maize	1.33	8.50	9.45	1.79	16.15	19.90	410.40	338.40	0.00	0.15	Zhu Y. C. et al. (2016). Effects of controlled release fertilizer and nitrification inhibitor additions on nitrous oxide emissions from spring maize field in Northern China. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 35(7):1421-1428.
2049	37.38	112.51	maize	1.33	8.50	9.45	1.79	16.15	19.90	410.40	338.40	180.00	1.78	Zhu Y. C. et al. (2016). Effects of controlled release fertilizer and nitrification inhibitor additions on nitrous oxide emissions from spring maize field in Northern China. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 35(7):1421-1428.
2050	40.26	106.34	maize	1.37	8.30	8.47	0.62	23.00	19.90	61.50	732.00	0.00	0.40	Liu G. et al. (2019). Effect of optimized nitrogen application on nitrous oxide emission and ammonia volatilization in Hetao irrigation area. (in Chinese with English abstract). <i>Acta Scientiae Circumstantiae</i> . 39(2):578-584.
2051	40.26	106.34	maize	1.37	8.30	8.47	0.62	23.00	19.90	61.50	732.00	375.00	5.44	Liu G. et al. (2019). Effect of optimized nitrogen application on nitrous oxide emission and ammonia volatilization in Hetao irrigation area. (in Chinese with English abstract). <i>Acta Scientiae Circumstantiae</i> . 39(2):578-584.
2052	40.26	106.34	maize	1.37	8.30	8.47	0.62	23.00	19.90	61.50	732.00	175.00	2.98	Liu G. et al. (2019). Effect of optimized nitrogen application on nitrous oxide emission and ammonia volatilization in Hetao irrigation area. (in Chinese with English abstract). <i>Acta Scientiae Circumstantiae</i> . 39(2):578-584.
2053	36.09	117.09	maize	1.43	7.15	7.47	0.95	21.24	25.88	443.00	735.60	0.00	0.48	Yang Q. L. et al. (2018). Effects of combined application of manure and chemical fertilizers on loss of gaseous nitrogen and yield of summer maize. (in Chinese with English abstract). <i>Scientia Agriculturae Sinica</i> . 51(13):2476-2488.
2054	36.09	117.09	maize	1.43	7.15	7.47	0.95	21.24	25.88	443.00	735.60	200.00	1.17	Yang Q. L. et al. (2018). Effects of combined application of manure and chemical fertilizers on loss of gaseous nitrogen and yield of summer maize. (in Chinese with English abstract). <i>Scientia Agriculturae Sinica</i> . 51(13):2476-2488.
2055	36.09	117.09	maize	1.43	7.15	7.47	0.95	21.24	26.60	357.50	626.40	0.00	0.20	Yang Q. L. et al. (2018). Effects of combined application of manure and chemical fertilizers on loss of gaseous nitrogen and yield of summer maize. (in Chinese with English abstract). <i>Scientia Agriculturae Sinica</i> . 51(13):2476-2488.
2056	36.09	117.09	maize	1.43	7.15	7.97	0.95	21.24	26.60	357.50	626.40	200.00	1.11	Yang Q. L. et al. (2018). Effects of combined application of manure and chemical fertilizers on loss of gaseous nitrogen and yield of summer maize. (in Chinese with English abstract). <i>Scientia Agriculturae Sinica</i> . 51(13):2476-2488.
2057	41.15	121.35	maize	1.40	7.12	13.17	1.41	21.29	21.40	508.50	979.50	0.00	0.82	Liu H. Y. et al. (2016). Quantitative assessment on effects of N application on maize with integrated evaluation index. (in Chinese with English abstract). <i>Soil and Fertilizer Sciences in China</i> . (6):106-110.
2058	41.15	121.35	maize	1.40	7.12	13.17	1.41	21.29	21.40	508.50	979.50	263.30	1.43	Liu H. Y. et al. (2016). Quantitative assessment on effects of N application on maize with integrated evaluation index. (in Chinese with English abstract). <i>Soil and Fertilizer Sciences in China</i> . (6):106-110.
2059	41.15	121.35	maize	1.40	7.12	13.17	1.41	21.29	21.40	508.50	979.50	210.00	1.29	Liu H. Y. et al. (2016). Quantitative assessment on effects of N application on maize with integrated evaluation index. (in Chinese with English abstract). <i>Soil and Fertilizer Sciences in China</i> . (6):106-110.
2060	43.34	124.53	maize	1.37	5.45	14.90	1.37	21.72	19.80	478.50	943.50	0.00	0.28	Song Z. X. (2018). Study on the ecological environment effect of controlled release fertilizer application in spring maize in black soil region of northeast China. (in Chinese with English abstract). <i>Chinese Academy of Agricultural Sciences</i> . (Beijing, China)
2061	43.34	124.53	maize	1.37	5.45	14.90	1.37	21.72	19.80	478.50	943.50	180.00	0.69	Song Z. X. (2018). Study on the ecological environment effect of controlled release fertilizer application in spring maize in black soil region of northeast China. (in Chinese with English abstract). <i>Chinese Academy of Agricultural Sciences</i> . (Beijing, China)
2062	34.36	108.52	maize	1.40	8.00	4.89	0.85	17.00	22.80	345.00	774.00	0.00	0.13	Liu L. (2018). Effect of plastic-covered ridge and furrow rainwater harvesting systems and nitrogen fertilizer application on N <sub>2</sub> O emission and water and fertilizer use efficiency of spring maize. (in Chinese with English abstract). Master dissertation of Northwest Agriculture and Forestry University. (Xianyang, China)
2063	34.36	108.52	maize	1.40	8.00	4.89	0.85	17.00	22.80	345.00	774.00	225.00	0.93	Liu L. (2018). Effect of plastic-covered ridge and furrow rainwater harvesting systems and nitrogen fertilizer application on N <sub>2</sub> O emission and water and fertilizer use efficiency of spring maize. (in Chinese with English abstract). Master dissertation of Northwest Agriculture and Forestry University. (Xianyang, China)
2064	34.36	108.52	maize	1.40	8.00	4.89	0.85	17.00	22.80	345.00	774.00	225.00	0.65	Liu L. (2018). Effect of plastic-covered ridge and furrow rainwater harvesting systems and nitrogen fertilizer application on N <sub>2</sub> O emission and water and fertilizer use efficiency of spring maize. (in Chinese with English abstract). Master dissertation of Northwest Agriculture and Forestry University. (Xianyang, China)
2065	34.36	108.52	maize	1.40	8.00	4.89	0.85	17.00	22.80	345.00	774.00	0.00	0.12	Liu L. (2018). Effect of plastic-covered ridge and furrow rainwater harvesting systems and nitrogen fertilizer application on N <sub>2</sub> O emission and water and fertilizer use efficiency of spring maize. (in Chinese with English abstract). Master dissertation of Northwest Agriculture and Forestry University. (Xianyang, China)
2066	34.36	108.52	maize	1.40	8.00	4.89	0.85	17.00	22.80	345.00	774.00	225.00	0.96	Liu L. (2018). Effect of plastic-covered ridge and furrow rainwater harvesting systems and nitrogen fertilizer application on N <sub>2</sub> O emission and water and fertilizer use efficiency of spring maize. (in Chinese with English abstract). Master dissertation of Northwest Agriculture and Forestry University. (Xianyang, China)
2067	34.36	108.52	maize	1.40	8.00	4.89	0.85	17.00	22.80	345.00	774.00	135.00	0.71	Liu L. (2018). Effect of plastic-covered ridge and furrow rainwater harvesting systems and nitrogen fertilizer application on N <sub>2</sub> O emission and water and fertilizer use efficiency of spring maize. (in Chinese with English abstract). Master dissertation of Northwest Agriculture and Forestry University. (Xianyang, China)
2068	34.36	108.52	maize	1.40	8.00	4.89	0.85	17.00	22.80	345.00	774.00	0.00	0.18	Liu L. (2018). Effect of plastic-covered ridge and furrow rainwater harvesting systems and nitrogen fertilizer application on N <sub>2</sub> O emission and water and fertilizer use efficiency of spring maize. (in Chinese with English abstract). Master dissertation of Northwest Agriculture and Forestry University. (Xianyang, China)
2069	34.36	108.52	maize	1.40	8.00	4.89	0.85	17.00	22.80	345.00	774.00	225.00	0.43	Liu L. (2018). Effect of plastic-covered ridge and furrow rainwater harvesting systems and nitrogen fertilizer application on N <sub>2</sub> O emission and water and fertilizer use efficiency of spring maize. (in Chinese with

2107	34.20	108.24	maize	1.38	8.40	6.97	0.89	17.00	23.30	424.50	901.50	210.00	0.15	Zhang B. (2018). Effects of water and fertilizer supply on soil N <sub>2</sub> O emissions in maize-wheat rotation system. (in Chinese with English abstract). Master dissertation of Northwest Agriculture and Forestry University. (Xi'an, China)
2108	34.20	108.24	maize	1.38	8.40	6.97	0.89	17.00	23.30	424.50	901.50	210.00	0.34	Zhang B. (2018). Effects of water and fertilizer supply on soil N <sub>2</sub> O emissions in maize-wheat rotation system. (in Chinese with English abstract). Master dissertation of Northwest Agriculture and Forestry University. (Xi'an, China)
2109	28.37	116.26	maize	1.25	6.00	9.39	0.98	23.05	24.80	1237.20	620.40	60.00	0.21	Afreen N. (2017). Impacts of soil fertility management on nitrogen use efficiency and greenhouse gas emissions in a double maize cropping system in Southern China. (in Chinese with English abstract). PhD dissertation of Chinese Academy of Agricultural Sciences. (Beijing, China)
2110	28.37	116.26	maize	1.25	6.00	9.39	0.98	23.05	24.80	1237.20	620.40	60.00	0.37	Afreen N. (2017). Impacts of soil fertility management on nitrogen use efficiency and greenhouse gas emissions in a double maize cropping system in Southern China. (in Chinese with English abstract). PhD dissertation of Chinese Academy of Agricultural Sciences. (Beijing, China)
2111	28.37	116.26	maize	1.25	6.00	9.39	0.98	23.05	24.80	1237.20	620.40	60.00	0.30	Afreen N. (2017). Impacts of soil fertility management on nitrogen use efficiency and greenhouse gas emissions in a double maize cropping system in Southern China. (in Chinese with English abstract). PhD dissertation of Chinese Academy of Agricultural Sciences. (Beijing, China)
2112	28.37	116.26	maize	1.25	6.00	9.39	0.98	23.05	24.80	1237.20	620.40	60.00	0.30	Afreen N. (2017). Impacts of soil fertility management on nitrogen use efficiency and greenhouse gas emissions in a double maize cropping system in Southern China. (in Chinese with English abstract). PhD dissertation of Chinese Academy of Agricultural Sciences. (Beijing, China)
2113	28.37	116.26	maize	1.25	6.00	9.39	0.98	23.05	24.80	1237.20	620.40	60.00	0.36	Afreen N. (2017). Impacts of soil fertility management on nitrogen use efficiency and greenhouse gas emissions in a double maize cropping system in Southern China. (in Chinese with English abstract). PhD dissertation of Chinese Academy of Agricultural Sciences. (Beijing, China)
2114	28.37	116.26	maize	1.25	6.00	9.39	0.98	23.05	24.80	1237.20	620.40	60.00	0.44	Afreen N. (2017). Impacts of soil fertility management on nitrogen use efficiency and greenhouse gas emissions in a double maize cropping system in Southern China. (in Chinese with English abstract). PhD dissertation of Chinese Academy of Agricultural Sciences. (Beijing, China)
2115	28.37	116.26	maize	1.25	6.00	9.39	0.98	23.05	24.80	1237.20	620.40	60.00	0.20	Afreen N. (2017). Impacts of soil fertility management on nitrogen use efficiency and greenhouse gas emissions in a double maize cropping system in Southern China. (in Chinese with English abstract). PhD dissertation of Chinese Academy of Agricultural Sciences. (Beijing, China)
2116	28.37	116.26	maize	1.25	6.00	9.39	0.98	23.05	24.80	1237.20	620.40	60.00	0.29	Afreen N. (2017). Impacts of soil fertility management on nitrogen use efficiency and greenhouse gas emissions in a double maize cropping system in Southern China. (in Chinese with English abstract). PhD dissertation of Chinese Academy of Agricultural Sciences. (Beijing, China)
2117	28.37	116.26	maize	1.25	6.00	9.39	0.98	23.05	24.80	1237.20	620.40	60.00	0.33	Afreen N. (2017). Impacts of soil fertility management on nitrogen use efficiency and greenhouse gas emissions in a double maize cropping system in Southern China. (in Chinese with English abstract). PhD dissertation of Chinese Academy of Agricultural Sciences. (Beijing, China)
2118	28.37	116.26	maize	1.25	6.00	9.39	0.98	23.05	24.80	1237.20	620.40	120.00	0.40	Afreen N. (2017). Impacts of soil fertility management on nitrogen use efficiency and greenhouse gas emissions in a double maize cropping system in Southern China. (in Chinese with English abstract). PhD dissertation of Chinese Academy of Agricultural Sciences. (Beijing, China)
2119	28.37	116.26	maize	1.25	6.00	9.39	0.98	23.05	24.80	1237.20	620.40	60.00	0.31	Afreen N. (2017). Impacts of soil fertility management on nitrogen use efficiency and greenhouse gas emissions in a double maize cropping system in Southern China. (in Chinese with English abstract). PhD dissertation of Chinese Academy of Agricultural Sciences. (Beijing, China)
2120	28.37	116.26	maize	1.25	6.00	9.39	0.98	23.05	24.80	1237.20	620.40	60.00	0.48	Afreen N. (2017). Impacts of soil fertility management on nitrogen use efficiency and greenhouse gas emissions in a double maize cropping system in Southern China. (in Chinese with English abstract). PhD dissertation of Chinese Academy of Agricultural Sciences. (Beijing, China)
2121	28.37	116.26	maize	1.25	6.00	9.39	0.98	23.05	24.80	1237.20	620.40	120.00	0.71	Afreen N. (2017). Impacts of soil fertility management on nitrogen use efficiency and greenhouse gas emissions in a double maize cropping system in Southern China. (in Chinese with English abstract). PhD dissertation of Chinese Academy of Agricultural Sciences. (Beijing, China)
2122	36.09	117.09	maize	1.43	7.70	10.26	2.17	21.24	25.00	272.00	730.80	0.00	0.10	Jia X. (2017). Effects of mixed organic and inorganic N fertilizer on soil fertility and Nitrogen balance of summer maize. (in Chinese with English abstract). Master dissertation of Shandong Agricultural University. (Tai'an, China)
2123	36.09	117.09	maize	1.43	7.70	10.26	2.17	21.24	25.00	272.00	730.80	200.00	0.95	Jia X. (2017). Effects of mixed organic and inorganic N fertilizer on soil fertility and Nitrogen balance of summer maize. (in Chinese with English abstract). Master dissertation of Shandong Agricultural University. (Tai'an, China)
2124	47.58	135.52	maize	1.27	6.12	36.80	3.12	13.90	16.10	465.00	816.00	0.00	0.44	Song C. et al. (2009). Effects of soil moisture, temperature, and nitrogen fertilization on soil respiration and nitrous oxide emission during maize growth period in northeast China. <i>Acta Agriculturae Scandinavica, Section B-Soil &amp; Plant Science</i> . 59(2): 97-106
2125	47.58	135.52	maize	1.27	6.12	36.80	3.12	13.90	16.10	465.00	816.00	150.00	2.00	Song C. et al. (2009). Effects of soil moisture, temperature, and nitrogen fertilization on soil respiration and nitrous oxide emission during maize growth period in northeast China. <i>Acta Agriculturae Scandinavica, Section B-Soil &amp; Plant Science</i> . 59(2): 97-106
2126	47.58	135.52	maize	1.27	6.12	36.80	3.12	13.90	16.10	465.00	816.00	250.00	2.84	Song C. et al. (2009). Effects of soil moisture, temperature, and nitrogen fertilization on soil respiration and nitrous oxide emission during maize growth period in northeast China. <i>Acta Agriculturae Scandinavica, Section B-Soil &amp; Plant Science</i> . 59(2): 97-106
2127	34.93	110.72	maize	1.17	8.70	11.30	1.10	31.80	23.30	424.50	984.00	0.00	1.01	Liu C. et al. (2012). Responses of N <sub>2</sub> O and CH <sub>4</sub> fluxes to fertilizer nitrogen addition rates in an irrigated wheat-maize cropping system in northern China. <i>Biogeochemistry</i> . 9: 839-850
2128	34.93	110.72	maize	1.17	8.70	11.30	1.10	31.80	23.30	424.50	984.00	75.00	1.61	Liu C. et al. (2012). Responses of N <sub>2</sub> O and CH <sub>4</sub> fluxes to fertilizer nitrogen addition rates in an irrigated wheat-maize cropping system in northern China. <i>Biogeochemistry</i> . 9: 839-850
2129	34.93	110.72	maize	1.17	8.70	11.30	1.10	31.80	23.30	424.50	984.00	150.00	2.00	Liu C. et al. (2012). Responses of N <sub>2</sub> O and CH <sub>4</sub> fluxes to fertilizer nitrogen addition rates in an irrigated wheat-maize cropping system in northern China. <i>Biogeochemistry</i> . 9: 839-850
2130	34.93	110.72	maize	1.17	8.70	11.30	1.10	31.80	23.30	424.50	984.00	250.00	2.72	Liu C. et al. (2012). Responses of N <sub>2</sub> O and CH <sub>4</sub> fluxes to fertilizer nitrogen addition rates in an irrigated wheat-maize cropping system in northern China. <i>Biogeochemistry</i> . 9: 839-850
2131	34.93	110.72	maize	1.17	8.70	11.30	1.10	31.80	23.30	424.50	984.00	350.00	3.21	Liu C. et al. (2012). Responses of N <sub>2</sub> O and CH <sub>4</sub> fluxes to fertilizer nitrogen addition rates in an irrigated wheat-maize cropping system in northern China. <i>Biogeochemistry</i> . 9: 839-850
2132	34.93	110.72	maize	1.17	8.70	11.30	1.10	31.80	23.30	424.50	984.00	450.00	4.49	Liu C. et al. (2012). Responses of N <sub>2</sub> O and CH <sub>4</sub> fluxes to fertilizer nitrogen addition rates in an irrigated wheat-maize cropping system in northern China. <i>Biogeochemistry</i> . 9: 839-850
2133	47.45	126.92	maize	0.98	6.30	27.96	2.60	42.00	18.20	468.00	885.00	0.00	0.41	Ding H. et al. (2004). Denitrification in losses of nitrogen fertilizer and N <sub>2</sub> O emission from different crop-black soil system in North-east China. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 23: 323-326
2134	47.45	126.92	maize	0.98	6.30	27.96	2.60	42.00	18.20	468.00	885.00	160.36	1.37	Ding H. et al. (2004). Denitrification in losses of nitrogen fertilizer and N <sub>2</sub> O emission from different crop-black soil system in North-east China. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 23: 323-326
2135	31.27	105.47	maize	1.30	8.30	6.96	0.87	21.08	25.00	727.50	766.50	0.00	0.56	Xiang H. et al. (2007). Effects of nitrogen fertilizer application on N <sub>2</sub> O emission in purple soil and maize root system. (in Chinese with English abstract). <i>Acta Scientiae Circumstantiae</i> . 27: 413-420
2136	31.27	105.47	maize	1.30	8.30	6.96	0.87	21.08	25.00	727.50	766.50	150.00	1.39	Xiang H. et al. (2007). Effects of nitrogen fertilizer application on N <sub>2</sub> O emission in purple soil and maize root system. (in Chinese with English abstract). <i>Acta Scientiae Circumstantiae</i> . 27: 413-420
2137	31.27	105.47	maize	1.30	8.30	6.96	0.87	21.08	25.00	727.50	766.50	250.00	1.60	Xiang H. et al. (2007). Effects of nitrogen fertilizer application on N <sub>2</sub> O emission in purple soil and maize root system. (in Chinese with English abstract). <i>Acta Scientiae Circumstantiae</i> . 27: 413-420
2138	26.75	111.88	maize	1.30	5.56	7.54	0.74	41.40	22.40	900.00	670.50	0.00	0.10	Huang J. et al. (2011). CO <sub>2</sub> and N <sub>2</sub> O emissions from red soil during wheat and corn growing seasons under different patterns of long-term fertilization. (in Chinese with English abstract). <i>Journal of Ecology and Rural Environment</i> . 27: 7-13
2139	26.75	111.88	maize	1.30	5.56	7.54	0.74	41.40	22.40	900.00	670.50	89.84	0.17	Huang J. et al. (2011). CO <sub>2</sub> and N <sub>2</sub> O emissions from red soil during wheat and corn growing seasons under different patterns of long-term fertilization. (in Chinese with English abstract). <i>Journal of Ecology and Rural Environment</i> . 27: 7-13
2140	26.75	111.88	maize	1.30	5.56	7.54	0.74	41.40	22.40	900.00	670.50	89.84	0.11	Huang J. et al. (2011). CO <sub>2</sub> and N <sub>2</sub> O emissions from red soil during wheat and corn growing seasons under different patterns of long-term fertilization. (in Chinese with English abstract). <i>Journal of Ecology and Rural Environment</i> . 27: 7-13
2141	26.75	111.88	maize	1.30	5.56	7.54	0.74	41.40	22.40	900.00	670.50	89.84	0.24	Huang J. et al. (2011). CO <sub>2</sub> and N <sub>2</sub> O emissions from red soil during wheat and corn growing seasons under different patterns of long-term fertilization. (in Chinese with English abstract). <i>Journal of Ecology and Rural Environment</i> . 27: 7-13
2142	37.63	112.85	maize	1.36	7.50	9.83	1.79	17.00	18.87	501.00	996.00	0.00	0.21	Liu Y. et al. (2011). Nitrous oxide emissions from spring-maize field under the application of different and phosphorus fertilizers. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 30: 1468-1475
2143	37.63	112.85	maize	1.36	7.50	9.83	1.79	17.00	18.87	501.00	996.00	180.00	1.19	Liu Y. et al. (2011). Nitrous oxide emissions from spring-maize field under the application of different and phosphorus fertilizers. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 30: 1468-1475
2144	37.63	112.85	maize	1.36	7.50	9.83	1.79	17.00	18.87	501.00	996.00	180.00	0.93	Liu Y. et al. (2011). Nitrous oxide emissions from spring-maize field under the application of different and phosphorus fertilizers. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 30: 1468-1475
2145	37.63	112.85	maize	1.36	7.50	9.83	1.79	17.00	18.87	501.00	996.00	180.00	0.69	Liu Y. et al. (2011). Nitrous oxide emissions from spring-maize field under the application of different and phosphorus fertilizers. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 30: 1468-1475
2146	31.62	120.47	maize	1.20	6.20	12.00	1.46	31.00	25.86	565.56	661.31	193.00	0.91	Zhang A. et al. (2012). Effect of biochar amendment on maize yield and greenhouse gas emissions from a soil organic carbon poor calcareous loamy soil from Central China Plain. <i>Plant and Soil</i> . 351: 263-275
2147	31.62	120.47	maize	1.20	6.20	12.00	1.46	31.00	25.86	565.56	661.31	232.00	2.81	Zhang A. et al. (2012). Effect of biochar amendment on maize yield and greenhouse gas emissions from a soil organic carbon poor calcareous loamy soil from Central China Plain. <i>Plant and Soil</i> . 351: 263-275
2148	47.43	126.63	maize	0.98	7.02	27.90	2.20	5.50	14.95	410.00	549.60	0.00	0.26	Miao S. et al. (2014). Frozen cropland soil in northeast China as source of N <sub>2</sub> O and CO <sub>2</sub> emissions. <i>PLoS ONE</i> . 9(12): e115761
2149	47.43	126.63	maize	0.98	7.02	27.90	2.20	5.50	14.95	410.00	549.60	20.25	0.40	Miao S. et al. (2014). Frozen cropland soil in northeast China as source of N <sub>2</sub> O and CO <sub>2</sub> emissions. <i>PLoS ONE</i> . 9(12): e115761
2150	47.43	126.63	maize	0.98	7.02	27.90	2.20	5.50	14.95	410.00	549.60	56.25	1.36	Miao S. et al. (2014). Frozen cropland soil in northeast China as source of N <sub>2</sub> O and CO <sub>2</sub> emissions. <i>PLoS ONE</i> . 9(12): e115761
2151	37.63	112.85	maize	1.36	7.50	9.45	1.79	17.00	18.87	501.00	996.00	0.00	0.18	Zhou P. et al. (2011). Effects of fertilization and environment factors on N <sub>2</sub> O emission in spring corn field in North China Plain: a case study of Jinzhong in Shanxi province. (in Chinese with English abstract). <i>Chinese Journal of Agronomy</i> . 32(2): 179-184
2152	37.63	112.85	maize	1.36	7.50	9.45	1.79	17.00	18.87	501.00	996.00	180.00	1.17	Zhou P. et al. (2011). Effects of fertilization and environment factors on N <sub>2</sub> O emission in spring corn field in North China Plain: a case study of Jinzhong in Shanxi province. (in Chinese with English abstract). <i>Chinese Journal of Agronomy</i> . 32(2): 179-184
2153	41.13	121.35	maize	1.33	7.10	13.20	1.40	19.30	21.40	508.50	979.50	0.00	0.63	Yang L. et al. (2013). Impacts of fertilization alternatives and crop straw incorporation on N <sub>2</sub> O Emissions from a spring maize field in Northeastern China. <i>Journal of Integrative Agriculture</i> . 13(4): 881-892
2154	41.13	121.35	maize	1.33	7.10	13.20	1.40	19.30	21.40	508.50	979.50	210.00	1.03	Yang L. et al. (2013). Impacts of fertilization alternatives and crop straw incorporation on N <sub>2</sub> O Emissions from a spring maize field in Northeastern China. <i>Journal of Integrative Agriculture</i> . 13(4): 881-892
2155	41.13	121.35	maize	1.33	7.10	13.20	1.40	19.30	21.40	508.50	979.50	265.00	1.11	Yang L. et al. (2013). Impacts of fertilization alternatives and crop straw incorporation on N <sub>2</sub> O Emissions from a spring maize field in Northeastern China. <i>Journal of Integrative Agriculture</i> . 13(4): 881-892
2156	41.13	121.35	maize	1.33	7.10	13.20	1.40	19.30	21.40	508.50	979.50	0.00	0.54	Yang L. et al. (2013). Impacts of fertilization alternatives and crop straw incorporation on N <sub>2</sub> O Emissions from a spring maize field in Northeastern China. <i>Journal of Integrative Agriculture</i> . 13(4): 881-892
2157	41.13	121.35	maize	1.33	7.10	13.20	1.40	19.30	21.40	508.50	979.50	210.00	0.96	Yang L. et al. (2013). Impacts of fertilization alternatives and crop straw incorporation on N <sub>2</sub> O Emissions from a spring maize field in Northeastern China. <i>Journal of Integrative Agriculture</i> . 13(4): 881-892
2158	41.13	121.35	maize	1.33	7.10	13.20	1.40	19.30	21.40	508.50	979.50	265.00	1.07	Yang L. et al. (2013). Impacts of fertilization alternatives and crop straw incorporation on N <sub>2</sub> O Emissions from a spring maize field in Northeastern China. <i>Journal of Integrative Agriculture</i> . 13(4): 881-892
2159	26.76	111.87	maize	1.26	5.70	6.06	1.07	41.40	22.40	900.00	1.65	0.00	0.16	Zhai L. et al. (2011). Long-term application of organic manure and mineral fertilizer on N <sub>2</sub> O and CO <sub>2</sub> Emissions in a red soil from cultivated maize-wheat rotation in China. <i>Agricultural Sciences in China</i> . 10: 1748-1757
2160	26.76	111.87	maize	1.26	5.70	6.06	1.07	41.40	22.40	900.00	1.65	210.00	0.17	Zhai L. et al. (2011). Long-term application of organic manure and mineral fertilizer on N <sub>2</sub> O and CO <sub>2</sub> Emissions in a red soil from cultivated maize-wheat rotation in China. <i>Agricultural Sciences in China</i> . 10: 1748-1757
2161	26.76	111.87	maize	1.26										













2683	39.5	116.4	vegetable	1.52	8.00	9.06	1.11	8.00	21.63	325.20	631.20	784.50	4.70	Yan H. et al. (2014). Characteristics of nitrous oxide emissions and the affecting factors from vegetable fields on the North China Plain. <i>Journal of Environmental Management</i> . 144: 316-321
2684	39.5	116.4	vegetable	1.27	8.20	16.90	0.71	8.00	21.63	325.20	631.20	0.00	0.41	Diao T. et al. (2013). Measurements of N <sub>2</sub> O emissions from different vegetable fields on the North China Plain. <i>Atmospheric Environment</i> . 72: 70-76
2685	39.5	116.4	vegetable	1.27	8.20	16.90	0.71	8.00	21.63	325.20	631.20	636.00	0.56	Diao T. et al. (2013). Measurements of N <sub>2</sub> O emissions from different vegetable fields on the North China Plain. <i>Atmospheric Environment</i> . 72: 70-76
2686	39.5	116.4	vegetable	1.27	8.20	16.90	0.71	8.00	21.63	325.20	631.20	703.50	1.23	Diao T. et al. (2013). Measurements of N <sub>2</sub> O emissions from different vegetable fields on the North China Plain. <i>Atmospheric Environment</i> . 72: 70-76
2687	39.5	116.4	vegetable	1.27	8.20	16.90	0.71	8.00	21.63	325.20	631.20	703.50	1.23	Diao T. et al. (2013). Measurements of N <sub>2</sub> O emissions from different vegetable fields on the North China Plain. <i>Atmospheric Environment</i> . 72: 70-76
2688	39.5	116.4	vegetable	1.27	8.20	16.90	0.71	8.00	21.63	325.20	631.20	703.50	0.86	Diao T. et al. (2013). Measurements of N <sub>2</sub> O emissions from different vegetable fields on the North China Plain. <i>Atmospheric Environment</i> . 72: 70-76
2689	39.5	116.4	vegetable	1.27	8.20	16.90	0.71	8.00	21.63	325.20	631.20	703.50	1.98	Diao T. et al. (2013). Measurements of N <sub>2</sub> O emissions from different vegetable fields on the North China Plain. <i>Atmospheric Environment</i> . 72: 70-76
2690	39.5	116.4	vegetable	1.34	7.82	5.78	0.71	36.00	16.96	129.60	823.50	0.00	0.71	Zhang Z. et al. (2009). Effects of different fertilizer levels on N <sub>2</sub> O flux from protected vegetable land. (in Chinese with English abstract). <i>Transactions of the Chinese Society of Agricultural Engineering</i> 26(5):269-275
2691	39.5	116.4	vegetable	1.34	7.82	5.78	0.71	36.00	16.96	129.60	823.50	285.60	4.10	Zhang Z. et al. (2009). Effects of different fertilizer levels on N <sub>2</sub> O flux from protected vegetable land. (in Chinese with English abstract). <i>Transactions of the Chinese Society of Agricultural Engineering</i> 26(5):269-275
2692	39.5	116.4	vegetable	1.34	7.82	5.78	0.71	36.00	16.96	129.60	823.50	535.60	5.26	Zhang Z. et al. (2009). Effects of different fertilizer levels on N <sub>2</sub> O flux from protected vegetable land. (in Chinese with English abstract). <i>Transactions of the Chinese Society of Agricultural Engineering</i> 26(5):269-275
2693	39.5	116.4	vegetable	1.34	7.82	5.78	0.71	36.00	16.96	129.60	823.50	783.00	4.58	Zhang Z. et al. (2009). Effects of different fertilizer levels on N <sub>2</sub> O flux from protected vegetable land. (in Chinese with English abstract). <i>Transactions of the Chinese Society of Agricultural Engineering</i> 26(5):269-275
2694	39.5	116.4	vegetable	1.34	7.82	5.78	0.71	36.00	16.96	129.60	823.50	935.60	0.93	Zhang Z. et al. (2009). Effects of different fertilizer levels on N <sub>2</sub> O flux from protected vegetable land. (in Chinese with English abstract). <i>Transactions of the Chinese Society of Agricultural Engineering</i> 26(5):269-275
2695	29.78	106.44	vegetable	1.32	5.64	8.83	1.50	52.50	24.68	430.20	2.70	0.00	0.80	Mu Z. et al. (2012). Soil greenhouse gas fluxes and net global warming potential from intensively cultivated vegetable fields in southwestern China. <i>Journal of Soil Science and Plant Nutrition</i> . 13: 566-578
2696	29.78	106.44	vegetable	1.32	5.64	8.83	1.50	52.50	24.68	430.20	2.70	220.00	6.80	Mu Z. et al. (2012). Soil greenhouse gas fluxes and net global warming potential from intensively cultivated vegetable fields in southwestern China. <i>Journal of Soil Science and Plant Nutrition</i> . 13: 566-578
2697	29.78	106.44	vegetable	1.32	5.64	8.83	1.50	52.50	24.68	430.20	2.70	244.00	10.40	Mu Z. et al. (2012). Soil greenhouse gas fluxes and net global warming potential from intensively cultivated vegetable fields in southwestern China. <i>Journal of Soil Science and Plant Nutrition</i> . 13: 566-578
2698	29.78	106.44	vegetable	1.32	5.64	8.83	1.50	52.50	24.68	430.20	2.70	0.00	0.20	Mu Z. et al. (2012). Soil greenhouse gas fluxes and net global warming potential from intensively cultivated vegetable fields in southwestern China. <i>Journal of Soil Science and Plant Nutrition</i> . 13: 566-578
2699	29.78	106.44	vegetable	1.32	5.64	8.83	1.50	52.50	24.68	430.20	2.70	96.00	1.10	Mu Z. et al. (2012). Soil greenhouse gas fluxes and net global warming potential from intensively cultivated vegetable fields in southwestern China. <i>Journal of Soil Science and Plant Nutrition</i> . 13: 566-578
2700	29.78	106.44	vegetable	1.32	5.64	8.83	1.50	52.50	24.68	430.20	2.70	113.00	1.40	Mu Z. et al. (2012). Soil greenhouse gas fluxes and net global warming potential from intensively cultivated vegetable fields in southwestern China. <i>Journal of Soil Science and Plant Nutrition</i> . 13: 566-578
2701	29.78	106.44	vegetable	1.32	5.64	8.83	1.50	52.50	24.68	430.20	2.70	0.00	0.20	Mu Z. et al. (2012). Soil greenhouse gas fluxes and net global warming potential from intensively cultivated vegetable fields in southwestern China. <i>Journal of Soil Science and Plant Nutrition</i> . 13: 566-578
2702	29.78	106.44	vegetable	1.32	5.64	8.83	1.50	52.50	24.68	430.20	2.70	231.00	2.80	Mu Z. et al. (2012). Soil greenhouse gas fluxes and net global warming potential from intensively cultivated vegetable fields in southwestern China. <i>Journal of Soil Science and Plant Nutrition</i> . 13: 566-578
2703	29.78	106.44	vegetable	1.32	5.64	8.83	1.50	52.50	24.68	430.20	2.70	262.00	3.60	Mu Z. et al. (2012). Soil greenhouse gas fluxes and net global warming potential from intensively cultivated vegetable fields in southwestern China. <i>Journal of Soil Science and Plant Nutrition</i> . 13: 566-578
2704	29.78	106.44	vegetable	1.32	5.64	8.83	1.50	52.50	24.68	430.20	2.70	0.00	0.10	Mu Z. et al. (2012). Soil greenhouse gas fluxes and net global warming potential from intensively cultivated vegetable fields in southwestern China. <i>Journal of Soil Science and Plant Nutrition</i> . 13: 566-578
2705	29.78	106.44	vegetable	1.32	5.64	8.83	1.50	52.50	24.68	430.20	2.70	125.00	1.10	Mu Z. et al. (2012). Soil greenhouse gas fluxes and net global warming potential from intensively cultivated vegetable fields in southwestern China. <i>Journal of Soil Science and Plant Nutrition</i> . 13: 566-578
2706	29.78	106.44	vegetable	1.32	5.64	8.83	1.50	52.50	24.68	430.20	2.70	142.00	2.20	Mu Z. et al. (2012). Soil greenhouse gas fluxes and net global warming potential from intensively cultivated vegetable fields in southwestern China. <i>Journal of Soil Science and Plant Nutrition</i> . 13: 566-578
2707	32.02	118.87	others	1.30	5.80	18.60	2.10	30.40	28.29	187.87	334.81	0.00	2.28	Jia J. et al. (2013). Net ecosystem carbon budget, net global warming potential and greenhouse gas intensity in intensive vegetable ecosystems in China. <i>Agriculture, Ecosystems &amp; Environment</i> . 150: 27-37
2708	32.02	118.87	others	1.30	5.80	18.60	2.10	30.40	28.29	187.87	334.81	720.00	16.41	Jia J. et al. (2013). Net ecosystem carbon budget, net global warming potential and greenhouse gas intensity in intensive vegetable ecosystems in China. <i>Agriculture, Ecosystems &amp; Environment</i> . 150: 27-37
2709	34.93	110.72	others	1.23	8.65	9.60	1.09	37.60	22.14	411.86	986.52	0.00	1.97	Meng S. (2011). Emissions of nitrous oxide (N <sub>2</sub> O) and nitric oxide (NO) from an irrigated cotton field in south Shanxi. (in Chinese with English abstract). Master dissertation of Huazhong Agricultural University. (Wuhan, China)
2710	34.93	110.72	others	1.23	8.65	9.60	1.09	37.60	22.14	411.86	986.52	27.00	2.36	Meng S. (2011). Emissions of nitrous oxide (N <sub>2</sub> O) and nitric oxide (NO) from an irrigated cotton field in south Shanxi. (in Chinese with English abstract). Master dissertation of Huazhong Agricultural University. (Wuhan, China)
2711	28.25	116.92	others	1.32	4.80	4.18	0.69	41.20	28.55	648.12	748.08	0.00	0.10	Ding H. et al. (2004). Denitrification in losses of nitrogen fertilizer and N <sub>2</sub> O emission from different crop-black soil system in North-east China. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 23: 323-326
2712	28.25	116.92	others	1.32	4.80	4.18	0.69	41.20	28.55	648.12	748.08	51.75	0.27	Ding H. et al. (2004). Denitrification in losses of nitrogen fertilizer and N <sub>2</sub> O emission from different crop-black soil system in North-east China. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 23: 323-326
2713	28.25	116.92	others	1.32	4.80	4.18	0.69	41.20	28.55	648.12	748.08	103.50	0.37	Ding H. et al. (2004). Denitrification in losses of nitrogen fertilizer and N <sub>2</sub> O emission from different crop-black soil system in North-east China. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 23: 323-326
2714	47.45	126.92	others	0.98	6.30	27.96	2.60	42.00	18.20	469.18	766.42	0.00	0.38	Ding H. et al. (2004). Denitrification in losses of nitrogen fertilizer and N <sub>2</sub> O emission from different crop-black soil system in North-east China. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 23: 323-326
2715	47.45	126.92	others	0.98	6.30	27.96	2.60	42.00	18.20	469.18	766.42	49.50	0.41	Ding H. et al. (2004). Denitrification in losses of nitrogen fertilizer and N <sub>2</sub> O emission from different crop-black soil system in North-east China. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 23: 323-326
2716	28.25	116.92	others	1.32	4.83	7.20	0.69	41.20	27.09	1332.96	543.49	0.00	0.53	Xiong Z. et al. (2002). The effects of summer legume crop cultivation on nitrous oxide emissions from upland farmland. (in Chinese with English abstract). <i>Scientia Agricultura Sinica</i> . 35: 1104-1108
2717	28.25	116.92	others	1.32	4.83	7.20	0.69	41.20	27.09	1332.96	543.49	103.00	0.88	Xiong Z. et al. (2002). The effects of summer legume crop cultivation on nitrous oxide emissions from upland farmland. (in Chinese with English abstract). <i>Scientia Agricultura Sinica</i> . 35: 1104-1108
2718	28.25	116.92	others	1.32	4.83	7.20	0.69	41.20	27.15	1440.53	684.42	0.00	0.66	Xiong Z. et al. (2002). The effects of summer legume crop cultivation on nitrous oxide emissions from upland farmland. (in Chinese with English abstract). <i>Scientia Agricultura Sinica</i> . 35: 1104-1108
2719	28.25	116.92	others	1.32	4.83	7.20	0.69	41.20	27.15	1440.53	684.42	34.50	0.88	Xiong Z. et al. (2002). The effects of summer legume crop cultivation on nitrous oxide emissions from upland farmland. (in Chinese with English abstract). <i>Scientia Agricultura Sinica</i> . 35: 1104-1108
2720	29.63	114.58	others	0.72	5.05	24.80	2.74	6.44	16.97	2050.09	1112.25	0.00	0.16	Lin S. et al. (2011). Nitrous oxide emissions from rape field as affected by nitrogen fertilizer management: A case study in Central China. <i>Atmospheric Environment</i> . 45: 1775-1779
2721	29.63	114.58	others	0.72	5.05	24.80	2.74	6.44	16.97	2050.09	1112.25	60.00	0.48	Lin S. et al. (2011). Nitrous oxide emissions from rape field as affected by nitrogen fertilizer management: A case study in Central China. <i>Atmospheric Environment</i> . 45: 1775-1779
2722	29.63	114.58	others	0.72	5.05	24.80	2.74	6.44	16.97	2050.09	1112.25	120.00	0.76	Lin S. et al. (2011). Nitrous oxide emissions from rape field as affected by nitrogen fertilizer management: A case study in Central China. <i>Atmospheric Environment</i> . 45: 1775-1779
2723	29.63	114.58	others	0.72	5.05	24.80	2.74	6.44	16.97	2050.09	1112.25	240.00	0.90	Lin S. et al. (2011). Nitrous oxide emissions from rape field as affected by nitrogen fertilizer management: A case study in Central China. <i>Atmospheric Environment</i> . 45: 1775-1779
2724	31.54	120.72	others	1.40	5.60	10.09	2.20	12.10	25.96	590.39	632.28	0.00	0.49	Xiao W. et al. (2013). Relationship between nitrogen application rate and nitrous oxide emission and effect of nitrification inhibitor in vegetable farming system. (in Chinese with English abstract). <i>Acta Pedologica Sinica</i> . 50: 743-751
2725	31.54	120.72	others	1.40	5.60	10.09	2.20	12.10	25.96	590.39	632.28	200.00	1.96	Xiao W. et al. (2013). Relationship between nitrogen application rate and nitrous oxide emission and effect of nitrification inhibitor in vegetable farming system. (in Chinese with English abstract). <i>Acta Pedologica Sinica</i> . 50: 743-751
2726	31.54	120.72	others	1.40	5.60	10.09	2.20	12.10	25.96	590.39	632.28	300.00	3.43	Xiao W. et al. (2013). Relationship between nitrogen application rate and nitrous oxide emission and effect of nitrification inhibitor in vegetable farming system. (in Chinese with English abstract). <i>Acta Pedologica Sinica</i> . 50: 743-751
2727	31.54	120.72	others	1.40	5.60	10.09	2.20	12.10	25.96	590.39	632.28	400.00	6.85	Xiao W. et al. (2013). Relationship between nitrogen application rate and nitrous oxide emission and effect of nitrification inhibitor in vegetable farming system. (in Chinese with English abstract). <i>Acta Pedologica Sinica</i> . 50: 743-751
2728	41.53	122.38	others	1.33	6.70	22.10	0.80	26.00	23.30	500.00	600.00	0.00	0.91	Chen X. et al. (2002). Nitrous oxide emission from upland crops and crop-soil systems in northeastern China. <i>Nutrient Cycling in Agroecosystems</i> . 62: 241-247
2729	41.53	122.38	others	1.33	6.70	22.10	0.80	26.00	23.30	500.00	600.00	50.00	1.47	Chen X. et al. (2002). Nitrous oxide emission from upland crops and crop-soil systems in northeastern China. <i>Nutrient Cycling in Agroecosystems</i> . 62: 241-247
2730	41.53	122.38	others	1.33	6.70	22.10	0.80	26.00	23.30	500.00	600.00	100.00	2.61	Chen X. et al. (2002). Nitrous oxide emission from upland crops and crop-soil systems in northeastern China. <i>Nutrient Cycling in Agroecosystems</i> . 62: 241-247
2731	29.88	114.22	others	0.72	5.05	24.80	2.70	24.00	18.50	480.00	627.00	0.00	0.16	Lin S. et al. (2011). Nitrous oxide emissions from rape field as affected by nitrogen fertilizer management: A case study in Central China. <i>Atmospheric Environment</i> . 45: 1775-1779
2732	29.88	114.22	others	0.72	5.05	24.80	2.70	24.00	18.50	480.00	627.00	60.00	0.48	Lin S. et al. (2011). Nitrous oxide emissions from rape field as affected by nitrogen fertilizer management: A case study in Central China. <i>Atmospheric Environment</i> . 45: 1775-1779
2733	29.88	114.22	others	0.72	5.05	24.80	2.70	24.00	18.50	480.00	627.00	120.00	0.76	Lin S. et al. (2011). Nitrous oxide emissions from rape field as affected by nitrogen fertilizer management: A case study in Central China. <i>Atmospheric Environment</i> . 45: 1775-1779
2734	29.88	114.22	others	0.72	5.05	24.80	2.70	24.00	18.50	480.00	627.00	240.00	0.96	Lin S. et al. (2011). Nitrous oxide emissions from rape field as affected by nitrogen fertilizer management: A case study in Central China. <i>Atmospheric Environment</i> . 45: 1775-1779
2735	42.03	116.28	others	1.56	7.07	18.90	1.87	23.00	15.30	379.00	1000.00	0.00	0.74	Zhang J. et al. (2008). N <sub>2</sub> O emission from the semi-arid ecosystem under mineral fertilizer (urea and superphosphate) and increased precipitation in northern China. <i>Atmospheric Environment</i> . 42: 291-302
2736	42.03	116.28	others	1.56	7.07	18.90	1.87	23.00	15.30	379.00	1000.00	50.00	0.96	Zhang J. et al. (2008). N <sub>2</sub> O emission from the semi-arid ecosystem under mineral fertilizer (urea and superphosphate) and increased precipitation in northern China. <i>Atmospheric Environment</i> . 42: 291-302
2737	42.03	116.28	others	1.56	7.07	18.90	1.87	23.00	15.30	379.00	1000.00	100.00	1.26	Zhang J. et al. (2008). N <sub>2</sub> O emission from the semi-arid ecosystem under mineral fertilizer (urea and superphosphate) and increased precipitation in northern China. <i>Atmospheric Environment</i> . 42: 291-302
2738	42.03	116.28	others	1.56	7.07	18.90	1.87	23.00	15.30	379.00	1000.00	150.00	1.58	Zhang J. et al. (2008). N <sub>2</sub> O emission from the semi-arid ecosystem under mineral fertilizer (urea and superphosphate) and increased precipitation in northern China. <i>Atmospheric Environment</i> . 42: 291-302
2739	42.03	116.28	others	1.56	7.07	18.90	1.87	23.00	15.30	379.00	1000.00	0.00	0.77	Zhang J. et al. (2008). N <sub>2</sub> O emission from the semi-arid ecosystem under mineral fertilizer (urea and superphosphate) and increased precipitation in northern China. <i>Atmospheric Environment</i> . 42: 291-302
2740	42.03	116.28	others	1.56	7.07	18.90	1.87	23.00	15.30	379.00	1000.00	100.00	1.27	Zhang J. et al. (2008). N <sub>2</sub> O emission from the semi-arid ecosystem under mineral fertilizer (urea and superphosphate) and increased precipitation in northern China. <i>Atmospheric Environment</i> . 42: 291-302
2741	32.58	119.70	others	1.16	7.90	20.00	1.51	25.00	24.92	370.90	214.20	0.00	0.73	Yao Z. et al. (2015). Annual nitric and nitrous oxide fluxes from Chinese subtropical plastic greenhouse and conventional vegetable cultivations. <i>Environmental Pollution</i> . 196: 89-97
2742	32.58	119.70	others	1.16	7.90	20.00	1.51	25.00	24.92	370.90	214.20	705.00	12.70	Yao Z. et al. (2015). Annual nitric and nitrous oxide fluxes from Chinese subtropical plastic greenhouse and conventional vegetable cultivations. <i>Environmental Pollution</i> . 196: 89-97
2743	32.58	119.70	others											

# Database of NH<sub>3</sub>

Coordinates		Crop type	BD (g cm <sup>-3</sup> )	Soil pH	SOC (g kg <sup>-1</sup> )	TN (%)	Clay (%)	TEMP (°C)	PRECIP (mm)	EVAP (mm)	NFR (kg N ha <sup>-1</sup> )	NH <sub>3</sub> emissions (kg NH <sub>3</sub> -N ha <sup>-1</sup> )	Reference	
Num	Lat													Long
1	31.53	120.68	rice	1.52	7.36	34.48	1.79	20.82	26.67	530.64	809.28	0.00	6.92	Wang X. et al. (2007). Nitrogen Cycling and Losses Under Rice-Wheat Rotations with Coated Urea and Urea in the Taihu Lake Region. <i>Pedosphere</i> . 17(1): 62-69
2	31.53	120.68	rice	1.52	7.36	34.48	1.79	20.82	26.67	530.64	809.28	150.00	48.91	Wang X. et al. (2007). Nitrogen Cycling and Losses Under Rice-Wheat Rotations with Coated Urea and Urea in the Taihu Lake Region. <i>Pedosphere</i> . 17(1): 62-69
3	31.53	120.68	rice	1.52	7.36	34.48	1.79	20.82	26.67	530.64	809.28	300.00	110.67	Wang X. et al. (2007). Nitrogen Cycling and Losses Under Rice-Wheat Rotations with Coated Urea and Urea in the Taihu Lake Region. <i>Pedosphere</i> . 17(1): 62-69
4	29.92	115.50	rice	1.40	5.39	33.40	2.54	23.00	26.88	629.88	628.32	0.00	7.88	Zhang J. et al. (2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture, Ecosystems &amp; Environment</i> . 140(1-2): 164-173
5	29.92	115.50	rice	1.40	5.39	33.40	2.54	23.00	26.88	629.88	628.32	210.00	36.70	Zhang J. et al. (2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture, Ecosystems &amp; Environment</i> . 140(1-2): 164-173
6	29.92	115.50	rice	1.40	5.85	27.00	2.48	23.00	26.83	668.64	629.64	0.00	9.84	Zhang J. et al. (2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture, Ecosystems &amp; Environment</i> . 140(1-2): 164-173
7	29.92	115.50	rice	1.40	5.85	27.00	2.48	23.00	26.83	668.64	629.64	210.00	28.50	Zhang J. et al. (2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture, Ecosystems &amp; Environment</i> . 140(1-2): 164-173
8	29.92	115.50	rice	1.40	5.39	33.40	2.54	23.00	26.88	629.88	628.32	0.00	4.44	Zhang J. et al. (2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture, Ecosystems &amp; Environment</i> . 140(1-2): 164-173
9	29.92	115.50	rice	1.40	5.39	33.40	2.54	23.00	26.88	629.88	628.32	210.00	27.60	Zhang J. et al. (2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture, Ecosystems &amp; Environment</i> . 140(1-2): 164-173
10	29.92	115.50	rice	1.40	5.85	27.00	2.48	23.00	26.88	629.88	628.32	0.00	5.57	Zhang J. et al. (2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture, Ecosystems &amp; Environment</i> . 140(1-2): 164-173
11	29.92	115.50	rice	1.40	5.85	27.00	2.48	23.00	26.88	629.88	628.32	210.00	18.20	Zhang J. et al. (2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture, Ecosystems &amp; Environment</i> . 140(1-2): 164-173
12	30.87	121.75	rice	1.39	7.90	13.00	1.47	25.00	26.43	684.00	684.12	0.00	6.50	Xiao Y. et al. (2005). Economic values of nitrogen transformation in rice field ecosystems. (in Chinese with English abstract). <i>Chinese Journal of Applied Ecology</i> . 16(9): 1745-1750
13	30.87	121.75	rice	1.39	7.90	13.00	1.47	25.00	26.43	684.00	684.12	225.00	92.25	Xiao Y. et al. (2005). Economic values of nitrogen transformation in rice field ecosystems. (in Chinese with English abstract). <i>Chinese Journal of Applied Ecology</i> . 16(9): 1745-1750
14	30.87	121.75	rice	1.39	7.90	13.00	1.47	25.00	26.43	684.00	684.12	375.00	161.25	Xiao Y. et al. (2005). Economic values of nitrogen transformation in rice field ecosystems. (in Chinese with English abstract). <i>Chinese Journal of Applied Ecology</i> . 16(9): 1745-1750
15	30.87	121.75	rice	1.39	7.90	13.00	1.47	25.00	26.43	684.00	684.12	525.00	236.25	Xiao Y. et al. (2005). Economic values of nitrogen transformation in rice field ecosystems. (in Chinese with English abstract). <i>Chinese Journal of Applied Ecology</i> . 16(9): 1745-1750
16	29.85	115.55	rice	1.42	5.80	23.86	2.39	23.00	25.84	942.24	634.08	0.00	18.41	Zhang X. (2015). Effects of nitrogen types on NH <sub>3</sub> volatilization and N <sub>2</sub> O emissions and nitrogen utilization in no-tillage paddy fields of central China. (in Chinese with English abstract). Master dissertation of Huazhong Agricultural University (Wuhan, China)
17	29.85	115.55	rice	1.42	5.80	23.86	2.39	23.00	25.84	942.24	634.08	180.00	42.24	Zhang X. (2015). Effects of nitrogen types on NH <sub>3</sub> volatilization and N <sub>2</sub> O emissions and nitrogen utilization in no-tillage paddy fields of central China. (in Chinese with English abstract). Master dissertation of Huazhong Agricultural University (Wuhan, China)
18	29.85	115.55	rice	1.42	5.80	23.86	2.39	23.00	25.84	942.24	634.08	0.00	19.39	Zhang X. (2015). Effects of nitrogen types on NH <sub>3</sub> volatilization and N <sub>2</sub> O emissions and nitrogen utilization in no-tillage paddy fields of central China. (in Chinese with English abstract). Master dissertation of Huazhong Agricultural University (Wuhan, China)
19	29.85	115.55	rice	1.42	5.80	23.86	2.39	23.00	25.84	942.24	634.08	180.00	47.44	Zhang X. (2015). Effects of nitrogen types on NH <sub>3</sub> volatilization and N <sub>2</sub> O emissions and nitrogen utilization in no-tillage paddy fields of central China. (in Chinese with English abstract). Master dissertation of Huazhong Agricultural University (Wuhan, China)
20	31.53	120.70	rice	1.52	7.60	35.00	2.12	20.82	26.23	726.96	779.28	0.00	5.51	Zhao M. et al. (2015). Mitigating gaseous nitrogen emissions intensity from a Chinese rice cropping system through an improved management practice aimed to close the yield gap. <i>Agriculture, Ecosystems &amp; Environment</i> . 203: 36-45
21	31.53	120.70	rice	1.52	7.60	35.00	2.12	20.82	26.23	726.96	779.28	300.00	16.42	Zhao M. et al. (2015). Mitigating gaseous nitrogen emissions intensity from a Chinese rice cropping system through an improved management practice aimed to close the yield gap. <i>Agriculture, Ecosystems &amp; Environment</i> . 203: 36-45
22	31.53	120.70	rice	1.52	7.60	35.00	2.12	20.82	26.23	726.96	779.28	225.00	53.21	Zhao M. et al. (2015). Mitigating gaseous nitrogen emissions intensity from a Chinese rice cropping system through an improved management practice aimed to close the yield gap. <i>Agriculture, Ecosystems &amp; Environment</i> . 203: 36-45
23	31.53	120.70	rice	1.52	7.60	35.00	2.12	20.82	26.23	726.96	779.28	365.00	61.59	Zhao M. et al. (2015). Mitigating gaseous nitrogen emissions intensity from a Chinese rice cropping system through an improved management practice aimed to close the yield gap. <i>Agriculture, Ecosystems &amp; Environment</i> . 203: 36-45
24	31.53	120.70	rice	1.52	7.60	35.00	2.12	20.82	26.21	526.20	624.00	0.00	7.56	Zhao M. et al. (2015). Mitigating gaseous nitrogen emissions intensity from a Chinese rice cropping system through an improved management practice aimed to close the yield gap. <i>Agriculture, Ecosystems &amp; Environment</i> . 203: 36-45
25	31.53	120.70	rice	1.52	7.60	35.00	2.12	20.82	26.21	526.20	624.00	300.00	22.60	Zhao M. et al. (2015). Mitigating gaseous nitrogen emissions intensity from a Chinese rice cropping system through an improved management practice aimed to close the yield gap. <i>Agriculture, Ecosystems &amp; Environment</i> . 203: 36-45
26	31.53	120.70	rice	1.52	7.60	35.00	2.12	20.82	26.21	526.20	624.00	225.00	48.91	Zhao M. et al. (2015). Mitigating gaseous nitrogen emissions intensity from a Chinese rice cropping system through an improved management practice aimed to close the yield gap. <i>Agriculture, Ecosystems &amp; Environment</i> . 203: 36-45
27	31.53	120.70	rice	1.52	7.60	35.00	2.12	20.82	26.21	526.20	624.00	365.00	72.13	Zhao M. et al. (2015). Mitigating gaseous nitrogen emissions intensity from a Chinese rice cropping system through an improved management practice aimed to close the yield gap. <i>Agriculture, Ecosystems &amp; Environment</i> . 203: 36-45
28	30.50	114.30	rice	1.42	6.30	20.70	0.86	24.00	27.06	623.28	733.44	0.00	22.10	Xia W. (2011). Nitrogen Cycling in Rice-Wheat Rotation System under Optimized Nitrogen Management. (in Chinese with English abstract). Master dissertation of Chinese Academy of Agricultural Sciences (Beijing, China)
29	30.50	114.30	rice	1.42	6.30	20.70	0.86	24.00	27.06	623.28	733.44	210.00	62.82	Xia W. (2011). Nitrogen Cycling in Rice-Wheat Rotation System under Optimized Nitrogen Management. (in Chinese with English abstract). Master dissertation of Chinese Academy of Agricultural Sciences (Beijing, China)
30	30.50	114.30	rice	1.42	6.30	20.70	0.86	24.00	27.06	623.28	733.44	147.00	45.88	Xia W. (2011). Nitrogen Cycling in Rice-Wheat Rotation System under Optimized Nitrogen Management. (in Chinese with English abstract). Master dissertation of Chinese Academy of Agricultural Sciences (Beijing, China)
31	30.50	114.30	rice	1.42	6.30	20.70	0.86	24.00	27.06	623.28	733.44	147.00	41.27	Xia W. (2011). Nitrogen Cycling in Rice-Wheat Rotation System under Optimized Nitrogen Management. (in Chinese with English abstract). Master dissertation of Chinese Academy of Agricultural Sciences (Beijing, China)
32	31.20	119.90	rice	1.42	6.00	12.60	0.64	17.33	26.15	652.44	687.84	0.00	5.80	Zhao D. et al. (2012). Characteristics of N loss and environmental effect of paddy field in Taihu area. (in Chinese with English abstract). <i>Ecology and Environmental Sciences</i> . 21(6): 1149-1154
33	31.20	119.90	rice	1.42	6.00	12.60	0.64	17.33	26.15	652.44	687.84	81.00	10.80	Zhao D. et al. (2012). Characteristics of N loss and environmental effect of paddy field in Taihu area. (in Chinese with English abstract). <i>Ecology and Environmental Sciences</i> . 21(6): 1149-1154
34	31.20	119.90	rice	1.42	6.00	12.60	0.64	17.33	26.15	652.44	687.84	135.00	17.20	Zhao D. et al. (2012). Characteristics of N loss and environmental effect of paddy field in Taihu area. (in Chinese with English abstract). <i>Ecology and Environmental Sciences</i> . 21(6): 1149-1154
35	31.20	119.90	rice	1.42	6.00	12.60	0.64	17.33	26.15	652.44	687.84	189.00	24.90	Zhao D. et al. (2012). Characteristics of N loss and environmental effect of paddy field in Taihu area. (in Chinese with English abstract). <i>Ecology and Environmental Sciences</i> . 21(6): 1149-1154
36	31.20	119.90	rice	1.42	6.00	12.60	0.64	17.33	26.15	652.44	687.84	216.00	33.70	Zhao D. et al. (2012). Characteristics of N loss and environmental effect of paddy field in Taihu area. (in Chinese with English abstract). <i>Ecology and Environmental Sciences</i> . 21(6): 1149-1154
37	31.20	119.90	rice	1.42	6.00	12.60	0.64	17.33	26.15	652.44	687.84	243.00	43.00	Zhao D. et al. (2012). Characteristics of N loss and environmental effect of paddy field in Taihu area. (in Chinese with English abstract). <i>Ecology and Environmental Sciences</i> . 21(6): 1149-1154
38	45.20	132.25	rice	1.11	6.00	61.20	1.62	23.31	17.71	401.76	568.56	0.00	5.86	Meng X. (2012). Research to Utilize and Loss of Nitrogen and Impact on Environment in Rice Field. (in Chinese with English abstract). Master dissertation of Northeast Agricultural University (Harbin, China)
39	45.20	132.25	rice	1.11	6.00	61.20	1.62	23.31	17.71	401.76	568.56	103.30	14.25	Meng X. (2012). Research to Utilize and Loss of Nitrogen and Impact on Environment in Rice Field. (in Chinese with English abstract). Master dissertation of Northeast Agricultural University (Harbin, China)
40	45.20	132.25	rice	1.11	6.00	61.20	1.62	23.31	17.71	401.76	568.56	103.30	16.52	Meng X. (2012). Research to Utilize and Loss of Nitrogen and Impact on Environment in Rice Field. (in Chinese with English abstract). Master dissertation of Northeast Agricultural University (Harbin, China)
41	45.20	132.25	rice	1.11	6.00	61.20	1.62	23.31	17.71	401.76	568.56	82.70	10.91	Meng X. (2012). Research to Utilize and Loss of Nitrogen and Impact on Environment in Rice Field. (in Chinese with English abstract). Master dissertation of Northeast Agricultural University (Harbin, China)
42	45.20	132.25	rice	1.11	6.00	61.20	1.62	23.31	17.71	401.76	568.56	82.70	14.57	Meng X. (2012). Research to Utilize and Loss of Nitrogen and Impact on Environment in Rice Field. (in Chinese with English abstract). Master dissertation of Northeast Agricultural University (Harbin, China)
43	45.20	132.25	rice	1.11	6.00	61.20	1.62	23.31	17.71	401.76	568.56	82.70	12.57	Meng X. (2012). Research to Utilize and Loss of Nitrogen and Impact on Environment in Rice Field. (in Chinese with English abstract). Master dissertation of Northeast Agricultural University (Harbin, China)
44	26.75	111.87	rice	1.07	6.80	24.50	1.58	28.76	27.02	737.64	695.16	0.00	0.74	Li J. et al. (2005). Effects of chemical fertilizers application combined with manure on ammonia volatilization and rice yield in red paddy soil. (in Chinese with English abstract). <i>Plant Nutrition and Fertilizer Science</i> . 11(1): 51-56
45	26.75	111.87	rice	1.07	6.80	24.50	1.58	28.76	27.02	737.64	695.16	150.00	57.36	Li J. et al. (2005). Effects of chemical fertilizers application combined with manure on ammonia volatilization and rice yield in red paddy soil. (in Chinese with English abstract). <i>Plant Nutrition and Fertilizer Science</i> . 11(1): 51-56
46	30.50	114.30	rice	1.42	6.30	20.69	0.86	24.00	26.95	802.32	707.04	0.00	22.11	Xia W. et al. (2010). Effect of optimized nitrogen application on ammonia volatilization from paddy field under wheat-rice rotation system. (in Chinese with English abstract). <i>Plant Nutrition and Fertilizer Science</i> . 16(1): 6-13
47	30.50	114.30	rice	1.42	6.30	20.69	0.86	24.00	26.95	802.32	707.04	210.00	62.82	Xia W. et al. (2010). Effect of optimized nitrogen application on ammonia volatilization from paddy field under wheat-rice rotation system. (in Chinese with English abstract). <i>Plant Nutrition and Fertilizer Science</i> . 16(1): 6-13
48	30.50	114.30	rice	1.42	6.30	20.69	0.86	24.00	26.95	802.32	707.04	147.00	45.88	Xia W. et al. (2010). Effect of optimized nitrogen application on ammonia volatilization from paddy field under wheat-rice rotation system. (in Chinese with English abstract). <i>Plant Nutrition and Fertilizer Science</i> . 16(1): 6-13
49	30.50	114.30	rice	1.42	6.30	20.69	0.86	24.00	26.95	802.32	707.04	147.00	41.27	Xia W. et al. (2010). Effect of optimized nitrogen application on ammonia volatilization from paddy field under wheat-rice rotation system. (in Chinese with English abstract). <i>Plant Nutrition and Fertilizer Science</i> . 16(1): 6-13
50	32.40	119.40	rice	1.42	7.43	6.68	0.55	17.55	25.68	607.32	677.04	0.00	0.39	Ye S. et al. (2011). Effects of Nitrogen Application Rate on Ammonia Volatilization and Nitrogen Utilization in Rice Growing Season. (in Chinese with English abstract). <i>Chin J Rice Sci</i> . 25(1): 71-78
51	32.40	119.40	rice	1.42	7.43	6.68	0.55	17.55	25.68	607.32	677.04	100.00	11.32	Ye S. et al. (2011). Effects of Nitrogen Application Rate on Ammonia Volatilization and Nitrogen Utilization in Rice Growing Season. (in Chinese with English abstract). <i>Chin J Rice Sci</i> . 25(1): 71-78
52	32.40	119.40	rice	1.42	7.43	6.68	0.55	17.55	25.68	607.32	677.04	200.00	35.42	Ye S. et al. (2011). Effects of Nitrogen Application Rate on Ammonia Volatilization and Nitrogen Utilization in Rice Growing Season. (in Chinese with English abstract). <i>Chin J Rice Sci</i> . 25(1): 71-78
53	32.40	119.40	rice	1.42	7.43	6.68	0.55	17.55	25.68	607.32	677.04	300.00	70.81	Ye S. et al. (2011). Effects of Nitrogen Application Rate on Ammonia Volatilization and Nitrogen Utilization in Rice Growing Season. (in Chinese with English abstract). <i>Chin J Rice Sci</i> . 25(1): 71-78
54	32.40	119.40	rice	1.42	7.43	6.68	0.55	17.55	25.68	607.32	677.04	400.00	102.43	Ye S. et al. (2011). Effects of Nitrogen Application Rate on Ammonia Volatilization and Nitrogen Utilization in Rice Growing Season. (in Chinese with English abstract). <i>Chin J Rice Sci</i> . 25(1): 71-78
55	30.27	120.20	rice	1.42	5.20	22.40	2.01	29.60	25.30	518.52	706.68	0.00	2.70	Zhao L. et al. (2009). Effects of SRI on Rice Yield, Water Productivity and NH <sub>3</sub> Volatilization from Soil with Different N Application Rates. (in Chinese with English abstract). <i>Chinese Journal of Soil Science</i> . 40(03): 576-579
56	30.27	120.20	rice	1.42	5.20	22.40	2.01	29.60	25.30	518.52	706.68	120.00	7.86	Zhao L. et al. (2009). Effects of SRI on Rice Yield, Water Productivity and NH <sub>3</sub> Volatilization from Soil with Different N Application Rates. (in Chinese with English abstract). <i>Chinese Journal of Soil Science</i> . 40(03): 576-579
57	30.27	120.20	rice	1.42	5.20	22.40	2.01	29.60	25.30	518.52	706.68	120.00	9.89	Zhao L. et al. (2009). Effects of SRI on Rice Yield, Water Productivity and NH <sub>3</sub> Volatilization from Soil with Different N Application Rates. (in Chinese with English abstract). <i>Chinese Journal of Soil Science</i> . 40(03): 576-579
58	30.27	120.20	rice	1.42	5.20	22.40	2.01	29.60	25.30	518.52	706.68	80.00	7.18	Zhao L. et al. (2009). Effects of SRI on Rice Yield, Water Productivity and NH <sub>3</sub> Volatilization from Soil with Different N Application Rates. (in Chinese with English abstract). <i>Chinese Journal of Soil Science</i> . 40(03): 576-579
59	30.27	120.20	rice	1.42	5.20									

83	28.20	113.60	rice	1.07	5.70	13.97	3.21	31.71	27.43	750.72	510.24	150.00	55.58	Zhou L. (2014). Effects of reduction application of controlled-release nitrogen fertilizer on growth, nitrogen uptake-utilization of rice and ammonia volatilization in paddy soil. (in Chinese with English abstract). Master dissertation of Hunan Agricultural University (Changsha, China)
84	28.20	113.60	rice	1.07	5.70	13.97	3.21	31.71	27.43	750.72	510.24	0.00	15.02	Zhou L. (2014). Effects of reduction application of controlled-release nitrogen fertilizer on growth, nitrogen uptake-utilization of rice and ammonia volatilization in paddy soil. (in Chinese with English abstract). Master dissertation of Hunan Agricultural University (Changsha, China)
85	28.20	113.60	rice	1.07	5.70	13.97	3.21	31.71	27.43	750.72	510.24	180.00	80.54	Zhou L. (2014). Effects of reduction application of controlled-release nitrogen fertilizer on growth, nitrogen uptake-utilization of rice and ammonia volatilization in paddy soil. (in Chinese with English abstract). Master dissertation of Hunan Agricultural University (Changsha, China)
86	28.20	113.10	rice	1.40	5.77	37.67	1.92	29.05	26.77	562.80	618.12	0.00	5.65	Zhu J. (2013). Effect of nitrogen application levels on ammonia volatilization and its mechanisms in typical double cropping paddy field of southern hills region. (in Chinese with English abstract). Master dissertation of Central South University (Changsha, China)
87	28.20	113.10	rice	1.40	5.77	37.67	1.92	29.05	26.77	562.80	618.12	112.50	38.31	Zhu J. (2013). Effect of nitrogen application levels on ammonia volatilization and its mechanisms in typical double cropping paddy field of southern hills region. (in Chinese with English abstract). Master dissertation of Central South University (Changsha, China)
88	28.20	113.10	rice	1.40	5.77	37.67	1.92	29.05	26.77	562.80	618.12	150.00	65.67	Zhu J. (2013). Effect of nitrogen application levels on ammonia volatilization and its mechanisms in typical double cropping paddy field of southern hills region. (in Chinese with English abstract). Master dissertation of Central South University (Changsha, China)
89	28.20	113.10	rice	1.40	5.77	37.67	1.92	29.05	26.77	562.80	618.12	187.50	85.20	Zhu J. (2013). Effect of nitrogen application levels on ammonia volatilization and its mechanisms in typical double cropping paddy field of southern hills region. (in Chinese with English abstract). Master dissertation of Central South University (Changsha, China)
90	28.20	113.10	rice	1.40	5.77	37.67	1.92	29.05	26.77	562.80	618.12	225.00	104.64	Zhu J. (2013). Effect of nitrogen application levels on ammonia volatilization and its mechanisms in typical double cropping paddy field of southern hills region. (in Chinese with English abstract). Master dissertation of Central South University (Changsha, China)
91	28.20	113.10	rice	1.40	5.77	37.67	1.92	29.05	26.77	562.80	618.12	300.00	137.97	Zhu J. (2013). Effect of nitrogen application levels on ammonia volatilization and its mechanisms in typical double cropping paddy field of southern hills region. (in Chinese with English abstract). Master dissertation of Central South University (Changsha, China)
92	31.53	120.68	rice	1.52	7.36	35.00	2.09	6.68	26.36	507.24	645.60	0.00	7.59	Cao Y. et al. (2015). Effects of integrated high-efficiency practice versus conventional practice on rice yield and N fate. Agriculture, Ecosystems & Environment. 202: 1-7
93	31.53	120.68	rice	1.52	7.36	35.00	2.09	6.68	26.36	507.24	645.60	0.00	49.20	Cao Y. et al. (2015). Effects of integrated high-efficiency practice versus conventional practice on rice yield and N fate. Agriculture, Ecosystems & Environment. 202: 1-7
94	31.53	120.68	rice	1.52	7.36	35.00	2.09	6.68	26.36	507.24	645.60	225.00	22.60	Cao Y. et al. (2015). Effects of integrated high-efficiency practice versus conventional practice on rice yield and N fate. Agriculture, Ecosystems & Environment. 202: 1-7
95	29.95	115.55	rice	1.44	5.18	23.86	1.63	23.00	27.71	747.36	634.08	0.00	3.48	Liu T. et al. (2015). Deep placement of nitrogen fertilizers reduces ammonia volatilization and increases nitrogen utilization efficiency in no-tillage paddy fields in central China. Field Crops Research. 184: 80-90
96	29.95	115.55	rice	1.44	5.18	23.86	1.63	23.00	27.71	747.36	634.08	216.00	59.52	Liu T. et al. (2015). Deep placement of nitrogen fertilizers reduces ammonia volatilization and increases nitrogen utilization efficiency in no-tillage paddy fields in central China. Field Crops Research. 184: 80-90
97	29.95	115.55	rice	1.44	5.18	23.86	1.63	23.00	27.71	747.36	634.08	216.00	47.55	Liu T. et al. (2015). Deep placement of nitrogen fertilizers reduces ammonia volatilization and increases nitrogen utilization efficiency in no-tillage paddy fields in central China. Field Crops Research. 184: 80-90
98	29.95	115.55	rice	1.44	5.18	23.86	1.63	23.00	27.71	747.36	634.08	216.00	39.26	Liu T. et al. (2015). Deep placement of nitrogen fertilizers reduces ammonia volatilization and increases nitrogen utilization efficiency in no-tillage paddy fields in central China. Field Crops Research. 184: 80-90
99	29.95	115.55	rice	1.44	5.18	23.86	1.63	23.00	27.71	747.36	634.08	216.00	32.72	Liu T. et al. (2015). Deep placement of nitrogen fertilizers reduces ammonia volatilization and increases nitrogen utilization efficiency in no-tillage paddy fields in central China. Field Crops Research. 184: 80-90
100	29.95	115.55	rice	1.44	5.18	23.86	1.63	23.00	27.71	747.36	634.08	216.00	64.77	Liu T. et al. (2015). Deep placement of nitrogen fertilizers reduces ammonia volatilization and increases nitrogen utilization efficiency in no-tillage paddy fields in central China. Field Crops Research. 184: 80-90
101	29.95	115.55	rice	1.44	5.18	23.86	1.63	23.00	27.71	747.36	634.08	216.00	55.09	Liu T. et al. (2015). Deep placement of nitrogen fertilizers reduces ammonia volatilization and increases nitrogen utilization efficiency in no-tillage paddy fields in central China. Field Crops Research. 184: 80-90
102	29.95	115.55	rice	1.44	5.18	23.86	1.63	23.00	27.71	747.36	634.08	216.00	46.97	Liu T. et al. (2015). Deep placement of nitrogen fertilizers reduces ammonia volatilization and increases nitrogen utilization efficiency in no-tillage paddy fields in central China. Field Crops Research. 184: 80-90
103	29.95	115.55	rice	1.44	5.18	23.86	1.63	23.00	27.71	747.36	634.08	216.00	38.78	Liu T. et al. (2015). Deep placement of nitrogen fertilizers reduces ammonia volatilization and increases nitrogen utilization efficiency in no-tillage paddy fields in central China. Field Crops Research. 184: 80-90
104	31.53	120.68	rice	1.52	7.36	35.00	2.09	20.82	26.23	726.96	779.28	0.00	1.29	Cao Y. et al. (2013). Assessment of ammonia volatilization from paddy fields under crop management practices aimed to increase grain yield and N efficiency. Field Crops Research. 147: 23-31
105	31.53	120.68	rice	1.52	7.36	35.00	2.09	20.82	26.23	726.96	779.28	300.00	51.88	Cao Y. et al. (2013). Assessment of ammonia volatilization from paddy fields under crop management practices aimed to increase grain yield and N efficiency. Field Crops Research. 147: 23-31
106	31.53	120.68	rice	1.52	7.36	35.00	2.09	20.82	26.23	726.96	779.28	270.00	26.90	Cao Y. et al. (2013). Assessment of ammonia volatilization from paddy fields under crop management practices aimed to increase grain yield and N efficiency. Field Crops Research. 147: 23-31
107	31.53	120.68	rice	1.52	7.36	35.00	2.09	20.82	26.23	726.96	779.28	0.00	49.20	Cao Y. et al. (2013). Assessment of ammonia volatilization from paddy fields under crop management practices aimed to increase grain yield and N efficiency. Field Crops Research. 147: 23-31
108	31.53	120.68	rice	1.52	7.36	35.00	2.09	20.82	26.23	726.96	779.28	300.00	49.20	Cao Y. et al. (2013). Assessment of ammonia volatilization from paddy fields under crop management practices aimed to increase grain yield and N efficiency. Field Crops Research. 147: 23-31
109	31.53	120.68	rice	1.52	7.36	35.00	2.09	20.82	26.23	726.96	779.28	270.00	29.69	Cao Y. et al. (2013). Assessment of ammonia volatilization from paddy fields under crop management practices aimed to increase grain yield and N efficiency. Field Crops Research. 147: 23-31
110	38.13	106.27	rice	1.39	8.58	14.87	1.09	22.64	21.53	118.08	405.48	0.00	27.60	Zhang H. et al. (2011). Study on the ammonia volatilization from paddy field in irrigation area of the Yellow River. (in Chinese with English abstract). Plant Nutrition and Fertilizer Science. 17(5): 1131-1139
111	38.13	106.27	rice	1.39	8.58	14.87	1.09	22.64	21.53	118.08	405.48	300.00	94.10	Zhang H. et al. (2011). Study on the ammonia volatilization from paddy field in irrigation area of the Yellow River. (in Chinese with English abstract). Plant Nutrition and Fertilizer Science. 17(5): 1131-1139
112	38.13	106.27	rice	1.39	8.58	14.87	1.09	22.64	21.53	118.08	405.48	240.00	71.40	Zhang H. et al. (2011). Study on the ammonia volatilization from paddy field in irrigation area of the Yellow River. (in Chinese with English abstract). Plant Nutrition and Fertilizer Science. 17(5): 1131-1139
113	31.53	120.68	rice	1.52	7.35	35.00	2.01	20.82	27.26	470.76	707.88	0.00	2.96	Zhang B. et al. (2017). Effects of chlorine-containing nitrogen fertilizer on ammonia volatilization and yields under rice-wheat rotation system in Taihu Lake region. (in Chinese with English abstract). Journal of Plant Nutrition and Fertilizer. 23(3): 557-566
114	31.53	120.68	rice	1.52	7.35	35.00	2.01	20.82	27.26	470.76	707.88	240.00	22.51	Zhang B. et al. (2017). Effects of chlorine-containing nitrogen fertilizer on ammonia volatilization and yields under rice-wheat rotation system in Taihu Lake region. (in Chinese with English abstract). Journal of Plant Nutrition and Fertilizer. 23(3): 557-566
115	31.53	120.68	rice	1.52	7.35	35.00	2.01	20.82	27.26	470.76	707.88	240.00	26.21	Zhang B. et al. (2017). Effects of chlorine-containing nitrogen fertilizer on ammonia volatilization and yields under rice-wheat rotation system in Taihu Lake region. (in Chinese with English abstract). Journal of Plant Nutrition and Fertilizer. 23(3): 557-566
116	31.53	120.68	rice	1.52	7.35	35.00	2.01	20.82	27.26	470.76	707.88	0.00	4.41	Zhang B. et al. (2017). Effects of chlorine-containing nitrogen fertilizer on ammonia volatilization and yields under rice-wheat rotation system in Taihu Lake region. (in Chinese with English abstract). Journal of Plant Nutrition and Fertilizer. 23(3): 557-566
117	31.53	120.68	rice	1.52	7.35	35.00	2.01	20.82	27.26	470.76	707.88	240.00	28.89	Zhang B. et al. (2017). Effects of chlorine-containing nitrogen fertilizer on ammonia volatilization and yields under rice-wheat rotation system in Taihu Lake region. (in Chinese with English abstract). Journal of Plant Nutrition and Fertilizer. 23(3): 557-566
118	31.53	120.68	rice	1.52	7.35	35.00	2.01	20.82	27.26	470.76	707.88	240.00	30.54	Zhang B. et al. (2017). Effects of chlorine-containing nitrogen fertilizer on ammonia volatilization and yields under rice-wheat rotation system in Taihu Lake region. (in Chinese with English abstract). Journal of Plant Nutrition and Fertilizer. 23(3): 557-566
119	31.55	120.70	rice	1.48	7.35	35.00	2.01	20.82	25.00	717.96	707.88	0.00	3.52	Zhang W. et al. (2016). Study on effect of thiourea amine on crop yield and ammonia volatilization in a rice-wheat rotation system. (in Chinese with English abstract). Master dissertation of Sichuan Agricultural University (Sichuan, China)
120	31.55	120.70	rice	1.48	7.35	35.00	2.01	20.82	25.00	717.96	707.88	240.00	21.58	Zhang W. et al. (2016). Study on effect of thiourea amine on crop yield and ammonia volatilization in a rice-wheat rotation system. (in Chinese with English abstract). Master dissertation of Sichuan Agricultural University (Sichuan, China)
121	31.55	120.70	rice	1.48	7.35	35.00	2.01	20.82	25.00	717.96	707.88	240.00	21.79	Zhang W. et al. (2016). Study on effect of thiourea amine on crop yield and ammonia volatilization in a rice-wheat rotation system. (in Chinese with English abstract). Master dissertation of Sichuan Agricultural University (Sichuan, China)
122	31.55	120.70	rice	1.48	7.35	35.00	2.01	20.82	25.00	717.96	707.88	0.00	2.49	Zhang W. et al. (2016). Study on effect of thiourea amine on crop yield and ammonia volatilization in a rice-wheat rotation system. (in Chinese with English abstract). Master dissertation of Sichuan Agricultural University (Sichuan, China)
123	31.55	120.70	rice	1.48	7.35	35.00	2.01	20.82	25.00	717.96	707.88	240.00	22.53	Zhang W. et al. (2016). Study on effect of thiourea amine on crop yield and ammonia volatilization in a rice-wheat rotation system. (in Chinese with English abstract). Master dissertation of Sichuan Agricultural University (Sichuan, China)
124	31.55	120.70	rice	1.48	7.35	35.00	2.01	20.82	25.00	717.96	707.88	240.00	21.99	Zhang W. et al. (2016). Study on effect of thiourea amine on crop yield and ammonia volatilization in a rice-wheat rotation system. (in Chinese with English abstract). Master dissertation of Sichuan Agricultural University (Sichuan, China)
125	31.65	117.67	rice	1.39	6.18	34.36	1.30	17.76	26.81	533.28	582.96	0.00	7.04	Wu L. (2016). Study about the Effect of Nitrogen Application Rate on Nitrogen Loss and Threshold of Nitrogen Fertilizer Input under Rice-wheat Rotation. (in Chinese with English abstract). Master dissertation of Anhui Agricultural University (Hefei, China)
126	31.65	117.67	rice	1.39	6.18	34.36	1.30	17.76	26.81	533.28	582.96	168.75	36.69	Wu L. (2016). Study about the Effect of Nitrogen Application Rate on Nitrogen Loss and Threshold of Nitrogen Fertilizer Input under Rice-wheat Rotation. (in Chinese with English abstract). Master dissertation of Anhui Agricultural University (Hefei, China)
127	31.65	117.67	rice	1.39	6.18	34.36	1.30	17.76	26.81	533.28	582.96	225.00	40.55	Wu L. (2016). Study about the Effect of Nitrogen Application Rate on Nitrogen Loss and Threshold of Nitrogen Fertilizer Input under Rice-wheat Rotation. (in Chinese with English abstract). Master dissertation of Anhui Agricultural University (Hefei, China)
128	31.65	117.67	rice	1.39	6.18	34.36	1.30	17.76	26.81	533.28	582.96	281.25	52.71	Wu L. (2016). Study about the Effect of Nitrogen Application Rate on Nitrogen Loss and Threshold of Nitrogen Fertilizer Input under Rice-wheat Rotation. (in Chinese with English abstract). Master dissertation of Anhui Agricultural University (Hefei, China)
129	31.65	117.67	rice	1.39	6.18	34.36	1.30	17.76	26.81	533.28	582.96	337.50	72.36	Wu L. (2016). Study about the Effect of Nitrogen Application Rate on Nitrogen Loss and Threshold of Nitrogen Fertilizer Input under Rice-wheat Rotation. (in Chinese with English abstract). Master dissertation of Anhui Agricultural University (Hefei, China)
130	31.53	120.68	rice	1.52	7.36	35.00	2.09	20.82	25.00	717.96	707.88	0.00	2.96	Ao Y. et al. (2016). Effects of Urea-ammonium Mixed Nitrogen Fertilizer on Ammonia Volatilization and Nitrogen Use Efficiency in Paddy Field of Taihu Lake Region. (in Chinese with English abstract). Soils. 48(2): 248-253
131	31.53	120.68	rice	1.52	7.36	35.00	2.09	20.82	25.00	717.96	707.88	240.00	22.51	Ao Y. et al. (2016). Effects of Urea-ammonium Mixed Nitrogen Fertilizer on Ammonia Volatilization and Nitrogen Use Efficiency in Paddy Field of Taihu Lake Region. (in Chinese with English abstract). Soils. 48(2): 248-253
132	31.53	120.68	rice	1.52	7.36	35.00	2.09	20.82	25.00	717.96	707.88	240.00	26.21	Ao Y. et al. (2016). Effects of Urea-ammonium Mixed Nitrogen Fertilizer on Ammonia Volatilization and Nitrogen Use Efficiency in Paddy Field of Taihu Lake Region. (in Chinese with English abstract). Soils. 48(2): 248-253
133	43.73	124.25	rice	1.48	6.90	22.42	1.82	20.75	21.54	380.16	668.64	0.00	0.79	Qi X. (2016). Study on the effect of one-off application of several new slow/control release fertilizers on Rice. (in Chinese with English abstract). Master dissertation of Jilin Agricultural University (Changchun, China)
134	43.73	124.25	rice	1.48	6.90	22.42	1.82	20.75	21.54	380.16	668.64	180.00	2.48	Qi X. (2016). Study on the effect of one-off application of several new slow/control release fertilizers on Rice. (in Chinese with English abstract). Master dissertation of Jilin Agricultural University (Changchun, China)
135	30.55	103.65	rice	1.40	6.97	27.50	2.11	18.40	21.81	894.48	471.24	0.00	2.88	Fu Y. (2016). Effects of Controlled-release Nitrogen Fertilizer Combined with Urea on Growth, Nitrogen Uptake and Accumulation of Rice. (in Chinese with English abstract). Master dissertation of Sichuan Agricultural University (Sichuan, China)
136	30.55	103.65	rice	1.40	6.97	27.50	2.11	18.40	21.81	894.48	471.24	150.00	24.41	Fu Y. (2016). Effects of Controlled-release Nitrogen Fertilizer Combined with Urea on Growth, Nitrogen Uptake and Accumulation of Rice. (in Chinese with English abstract). Master dissertation of Sichuan Agricultural University (Sichuan, China)
137	31.62	120.47	rice	1.52	6.80	28.59	0.85	17.75	25.16	754.56	708.60	0.00	5.21	Wang H. et al. (2016). Suppression of Ammonia Volatilization from Rice-Wheat Rotation Fields Amended with Controlled-Release Urea and Urea. Agronomy Journal. 108(3): 1214-1224
138	31.62	120.47	rice	1.52	6.80	28.59	0.85	17.75	25.16	754.56	708.60	255.00	8.72	Wang H. et al. (2016). Suppression of Ammonia Volatilization from Rice-Wheat Rotation Fields Amended with Controlled-Release Urea and Urea. Agronomy Journal. 108(3): 1214-1224
139	31.62	120.47	rice	1.52	6.80	28.59	0.85	17.75	25.16	754.56	708.60	0.00	3.41	Wang H. et al. (2016). Suppression of Ammonia Volatilization from Rice-Wheat Rotation Fields Amended with Controlled-Release Urea and Urea. Agronomy Journal. 108(3): 1214-1224
140	31.62	120.47	rice	1.52	6.80	28.59	0.85	17.75	25.16	754.56	708.60	255.00	8.89	Wang H. et al. (2016). Suppression of Ammonia Volatilization from Rice-Wheat Rotation Fields Amended with Controlled-Release Urea and Urea. Agronomy Journal. 108(3): 1214-1224
141	19.50	109.60	rice	1.30	4.98	30.40	1.39	25.74	29.86	399.72	696.48	0.00	1.23	Xue X. et al. (2018). Effects of loss-controlled urea on ammonia volatilization, N translocation and utilization efficiency in paddy rice. (in Chinese with English abstract). Chinese Journal of Applied Ecology. 29(1): 133-140
142	19.50	109.60	rice	1.30	4.98	30.40	1.39	25.74	29.86	399.72	696.48	185.00	28.56	Xue X. et al. (2018). Effects of loss-controlled urea on ammonia volatilization, N translocation and utilization efficiency in paddy rice. (in Chinese with English abstract). Chinese Journal of Applied Ecology. 29(1): 133-140
143	28.32	113.82	rice	1.07	5.61	16.60	1.21	31.71	25.79	965.16	510.24	0.00	7.60	Tian C. et al. (2018). Ammonia Volatilization Loss and Nitrogen Use Efficiency in Double-cropping Rice Field as Affected by Decreasing Controlled-release Urea Application Level. (in Chinese with English abstract). Chin J Rice Sci. 32(4): 387-397
144	28.32	113.82	rice	1.07	5.61	16.60	1.21	31.71	25.79	965				



170	29.80	115.50	rice	1.50	5.18	23.86	2.39	23.00	26.10	386.20	634.08	180.00	51.60	Liu T et al.(2018).Effects of Fertilizer Sources and Tillage Practices on NH3 Volatilization, Grain Yield, and N Use Efficiency of Rice Fields in Central China.Frontiers in Plant Science.9: 385
171	31.30	119.80	rice	1.40	6.25	26.85	1.56	17.33	24.22	517.56	640.80	0.00	1.38	Sun H et al.(2018).Biochar application mode influences nitrogen leaching and NH3 volatilization losses in a rice paddy soil irrigated with N-rich wastewater.Environmental technology.39(16): 2090-2096
172	31.30	119.80	rice	1.40	6.25	26.85	1.56	17.33	24.22	517.56	640.80	225.00	15.80	Sun H et al.(2018).Biochar application mode influences nitrogen leaching and NH3 volatilization losses in a rice paddy soil irrigated with N-rich wastewater.Environmental technology.39(16): 2090-2096
173	30.13	120.16	rice	1.40	5.57	28.25	2.05	29.60	25.49	656.04	641.88	0.00	11.54	Zhang Y et al.(2017).Tracing the fate of nitrogen with 15N isotope considering suitable fertilizer rate related to yield and environment impacts in paddy field. Paddy and Water Environment.15(4): 943-949
174	30.13	120.16	rice	1.40	5.57	28.25	2.05	29.60	25.49	656.04	641.88	75.00	30.77	Zhang Y et al.(2017).Tracing the fate of nitrogen with 15N isotope considering suitable fertilizer rate related to yield and environment impacts in paddy field. Paddy and Water Environment.15(4): 943-949
175	30.13	120.16	rice	1.40	5.57	28.25	2.05	29.60	25.49	656.04	641.88	225.00	112.31	Zhang Y et al.(2017).Tracing the fate of nitrogen with 15N isotope considering suitable fertilizer rate related to yield and environment impacts in paddy field. Paddy and Water Environment.15(4): 943-949
176	30.13	120.16	rice	1.40	5.57	28.25	2.05	29.60	25.49	656.04	641.88	375.00	215.39	Zhang Y et al.(2017).Tracing the fate of nitrogen with 15N isotope considering suitable fertilizer rate related to yield and environment impacts in paddy field. Paddy and Water Environment.15(4): 943-949
177	19.50	109.60	rice	1.30	4.98	30.40	1.39	25.74	26.68	976.20	491.52	0.00	1.23	XU X et al.(2017).Effects of loss-controlled urea on ammonia volatilization,N translocation and utilization efficiency in paddy rice.(in Chinese with English abstract).Chinese Journal of Applied Ecology.29(1): 133-140
178	19.50	109.60	rice	1.30	4.98	30.40	1.39	25.74	26.68	976.20	491.52	185.00	28.56	XU X et al.(2017).Effects of loss-controlled urea on ammonia volatilization,N translocation and utilization efficiency in paddy rice.(in Chinese with English abstract).Chinese Journal of Applied Ecology.29(1): 133-140
179	28.30	113.50	rice	1.07	5.60	16.62	1.21	31.71	25.33	1138.08	492.12	0.00	7.60	Tian C et al.(2018).Ammonia volatilization loss and nitrogen use efficiency in double-cropping rice field as affected by decreasing controlled-release urea application level.(in Chinese with English abstract).Chinese Journal of Applied Ecology.29(1): 133-140
180	28.30	113.50	rice	1.07	5.60	16.62	1.21	31.71	25.33	1138.08	492.12	180.00	47.20	Tian C et al.(2018).Ammonia volatilization loss and nitrogen use efficiency in double-cropping rice field as affected by decreasing controlled-release urea application level.(in Chinese with English abstract).Chinese Journal of Applied Ecology.29(1): 133-140
181	28.30	113.50	rice	1.07	5.60	16.62	1.21	31.71	25.33	1138.08	492.12	0.00	10.30	Tian C et al.(2018).Ammonia volatilization loss and nitrogen use efficiency in double-cropping rice field as affected by decreasing controlled-release urea application level.(in Chinese with English abstract).Chinese Journal of Applied Ecology.29(1): 133-140
182	28.30	113.50	rice	1.07	5.60	16.62	1.21	31.71	25.33	1138.08	492.12	180.00	61.90	Tian C et al.(2018).Ammonia volatilization loss and nitrogen use efficiency in double-cropping rice field as affected by decreasing controlled-release urea application level.(in Chinese with English abstract).Chinese Journal of Applied Ecology.29(1): 133-140
183	31.50	120.60	rice	1.48	7.00	26.60	2.83	31.90	25.08	1026.84	707.88	0.00	16.26	Wang S et al.(2018).Quantitative determination of N loss through denitrification under different N fertilizer application rates by membrane inlet mass spectrometry.(in Chinese with English abstract).Chinese Journal of Soil.50(4): 664-673
184	31.50	120.60	rice	1.48	7.00	26.60	2.83	31.90	25.08	1026.84	707.88	270.00	48.79	Wang S et al.(2018).Quantitative determination of N loss through denitrification under different N fertilizer application rates by membrane inlet mass spectrometry.(in Chinese with English abstract).Chinese Journal of Soil.50(4): 664-673
185	31.50	120.60	rice	1.48	7.00	26.60	2.83	31.90	25.08	1026.84	707.88	300.00	69.81	Wang S et al.(2018).Quantitative determination of N loss through denitrification under different N fertilizer application rates by membrane inlet mass spectrometry.(in Chinese with English abstract).Chinese Journal of Soil.50(4): 664-673
186	31.50	120.60	rice	1.48	7.00	26.60	2.83	31.90	25.08	1026.84	707.88	375.00	81.59	Wang S et al.(2018).Quantitative determination of N loss through denitrification under different N fertilizer application rates by membrane inlet mass spectrometry.(in Chinese with English abstract).Chinese Journal of Soil.50(4): 664-673
187	38.13	115.07	wheat	1.51	7.80	19.30	1.00	14.90	10.75	359.80	1026.48	0.00	5.25	Li X.(2007).Fate of Fertilizer Nitrogen and Gaseous N Loss in Winter Wheat-Summer Maize Rotation System in North China Plain.(in Chinese with English abstract).Master dissertation of Hebei Agricultural University (Baoding, China)
188	38.13	115.07	wheat	1.51	7.80	19.30	1.00	14.90	10.75	359.80	1026.48	75.00	5.97	Li X.(2007).Fate of Fertilizer Nitrogen and Gaseous N Loss in Winter Wheat-Summer Maize Rotation System in North China Plain.(in Chinese with English abstract).Master dissertation of Hebei Agricultural University (Baoding, China)
189	38.13	115.07	wheat	1.51	7.80	19.30	1.00	14.90	10.75	359.80	1026.48	150.00	7.22	Li X.(2007).Fate of Fertilizer Nitrogen and Gaseous N Loss in Winter Wheat-Summer Maize Rotation System in North China Plain.(in Chinese with English abstract).Master dissertation of Hebei Agricultural University (Baoding, China)
190	38.13	115.07	wheat	1.51	7.80	19.30	1.00	14.90	10.75	359.80	1026.48	225.00	9.31	Li X.(2007).Fate of Fertilizer Nitrogen and Gaseous N Loss in Winter Wheat-Summer Maize Rotation System in North China Plain.(in Chinese with English abstract).Master dissertation of Hebei Agricultural University (Baoding, China)
191	38.13	115.07	wheat	1.51	7.80	19.30	1.00	14.90	10.75	359.80	1026.48	300.00	12.85	Li X.(2007).Fate of Fertilizer Nitrogen and Gaseous N Loss in Winter Wheat-Summer Maize Rotation System in North China Plain.(in Chinese with English abstract).Master dissertation of Hebei Agricultural University (Baoding, China)
192	38.13	115.07	wheat	1.51	8.60	19.30	1.00	9.00	10.75	359.80	1026.48	0.00	5.25	Mu Y. et al.(2012). Effects of N Fertilization Rates on the NH3 Volatilization and N2O Emissions from the Wheat-Maize Rotation System in North China Plain.(in Chinese with English abstract).Ecology and Environmental Sciences.21(2): 225-230
193	38.13	115.07	wheat	1.51	8.60	19.30	1.00	9.00	10.75	359.80	1026.48	75.00	6.03	Mu Y. et al.(2012). Effects of N Fertilization Rates on the NH3 Volatilization and N2O Emissions from the Wheat-Maize Rotation System in North China Plain.(in Chinese with English abstract).Ecology and Environmental Sciences.21(2): 225-230
194	38.13	115.07	wheat	1.51	8.60	19.30	1.00	9.00	10.75	359.80	1026.48	150.00	7.46	Mu Y. et al.(2012). Effects of N Fertilization Rates on the NH3 Volatilization and N2O Emissions from the Wheat-Maize Rotation System in North China Plain.(in Chinese with English abstract).Ecology and Environmental Sciences.21(2): 225-230
195	38.13	115.07	wheat	1.51	8.60	19.30	1.00	9.00	10.75	359.80	1026.48	225.00	9.47	Mu Y. et al.(2012). Effects of N Fertilization Rates on the NH3 Volatilization and N2O Emissions from the Wheat-Maize Rotation System in North China Plain.(in Chinese with English abstract).Ecology and Environmental Sciences.21(2): 225-230
196	39.60	116.00	wheat	1.38	8.30	15.90	0.09	19.76	21.80	532.00	982.00	0.00	3.01	Shan N.(2014). Nitrogen Utilization and Loss in Winter Wheat-Summer Maize Rotation System of Beijing Suburb.(in Chinese with English abstract).Master dissertation of Hebei Agricultural University (Baoding, China)
197	39.60	116.00	wheat	1.38	8.30	15.90	0.09	19.76	21.80	532.00	982.00	50.00	4.35	Shan N.(2014). Nitrogen Utilization and Loss in Winter Wheat-Summer Maize Rotation System of Beijing Suburb.(in Chinese with English abstract).Master dissertation of Hebei Agricultural University (Baoding, China)
198	39.60	116.00	wheat	1.38	8.30	15.90	0.09	19.76	21.80	532.00	982.00	100.00	5.91	Shan N.(2014). Nitrogen Utilization and Loss in Winter Wheat-Summer Maize Rotation System of Beijing Suburb.(in Chinese with English abstract).Master dissertation of Hebei Agricultural University (Baoding, China)
199	39.60	116.00	wheat	1.38	8.30	15.90	0.09	19.76	21.80	532.00	982.00	150.00	9.46	Shan N.(2014). Nitrogen Utilization and Loss in Winter Wheat-Summer Maize Rotation System of Beijing Suburb.(in Chinese with English abstract).Master dissertation of Hebei Agricultural University (Baoding, China)
200	39.60	116.00	wheat	1.38	8.30	15.90	0.09	19.76	21.80	532.00	982.00	200.00	11.03	Shan N.(2014). Nitrogen Utilization and Loss in Winter Wheat-Summer Maize Rotation System of Beijing Suburb.(in Chinese with English abstract).Master dissertation of Hebei Agricultural University (Baoding, China)
201	39.60	116.00	wheat	1.38	8.30	15.90	0.09	19.76	21.80	532.00	982.00	250.00	14.64	Shan N.(2014). Nitrogen Utilization and Loss in Winter Wheat-Summer Maize Rotation System of Beijing Suburb.(in Chinese with English abstract).Master dissertation of Hebei Agricultural University (Baoding, China)
202	39.60	116.00	wheat	1.38	8.30	15.90	0.09	19.76	21.80	532.00	982.00	300.00	14.87	Shan N.(2014). Nitrogen Utilization and Loss in Winter Wheat-Summer Maize Rotation System of Beijing Suburb.(in Chinese with English abstract).Master dissertation of Hebei Agricultural University (Baoding, China)
203	39.60	116.00	wheat	1.38	8.30	15.90	0.09	19.76	21.80	532.00	982.00	400.00	21.20	Shan N.(2014). Nitrogen Utilization and Loss in Winter Wheat-Summer Maize Rotation System of Beijing Suburb.(in Chinese with English abstract).Master dissertation of Hebei Agricultural University (Baoding, China)
204	35.43	117.82	wheat	1.52	7.70	11.30	0.74	21.24	9.19	206.64	1040.16	0.00	14.28	Wu G.(2012). Effects of nitrogen fertilizer management in wheat growth season on nitrogen utilization and residual effect in winter wheat and summer maize cropping system.(in Chinese with English abstract).Master dissertation of Shandong Agricultural University (Taian, China)
205	35.43	117.82	wheat	1.52	7.70	11.30	0.74	21.24	9.19	206.64	1040.16	167.75	15.96	Wu G.(2012). Effects of nitrogen fertilizer management in wheat growth season on nitrogen utilization and residual effect in winter wheat and summer maize cropping system.(in Chinese with English abstract).Master dissertation of Shandong Agricultural University (Taian, China)
206	35.43	117.82	wheat	1.52	7.70	11.30	0.74	21.24	9.19	206.64	1040.16	225.00	17.19	Wu G.(2012). Effects of nitrogen fertilizer management in wheat growth season on nitrogen utilization and residual effect in winter wheat and summer maize cropping system.(in Chinese with English abstract).Master dissertation of Shandong Agricultural University (Taian, China)
207	35.43	117.82	wheat	1.52	7.70	11.30	0.74	21.24	9.19	206.64	1040.16	281.25	18.30	Wu G.(2012). Effects of nitrogen fertilizer management in wheat growth season on nitrogen utilization and residual effect in winter wheat and summer maize cropping system.(in Chinese with English abstract).Master dissertation of Shandong Agricultural University (Taian, China)
208	35.43	117.82	wheat	1.52	7.70	11.30	0.74	21.24	9.19	206.64	1040.16	337.50	19.73	Wu G.(2012). Effects of nitrogen fertilizer management in wheat growth season on nitrogen utilization and residual effect in winter wheat and summer maize cropping system.(in Chinese with English abstract).Master dissertation of Shandong Agricultural University (Taian, China)
209	39.10	116.93	wheat	1.34	8.40	27.40	1.28	17.18	10.76	153.84	983.28	0.00	3.82	Pang F.(2008). Effects of combined application of organic and inorganic fertilizers on soil ammonia volatilization and nitrate accumulation in winter wheat field.(in Chinese with English abstract).Master dissertation of Chinese Academy of Agricultural Sciences (Tianjin, China)
210	39.10	116.93	wheat	1.34	8.40	27.40	1.28	17.18	10.76	153.84	983.28	100.00	5.95	Pang F.(2008). Effects of combined application of organic and inorganic fertilizers on soil ammonia volatilization and nitrate accumulation in winter wheat field.(in Chinese with English abstract).Master dissertation of Chinese Academy of Agricultural Sciences (Tianjin, China)
211	39.10	116.93	wheat	1.34	8.40	27.40	1.28	17.18	10.76	153.84	983.28	200.00	6.64	Pang F.(2008). Effects of combined application of organic and inorganic fertilizers on soil ammonia volatilization and nitrate accumulation in winter wheat field.(in Chinese with English abstract).Master dissertation of Chinese Academy of Agricultural Sciences (Tianjin, China)
212	39.10	116.93	wheat	1.34	8.40	27.40	1.28	17.18	10.76	153.84	983.28	300.00	7.62	Pang F.(2008). Effects of combined application of organic and inorganic fertilizers on soil ammonia volatilization and nitrate accumulation in winter wheat field.(in Chinese with English abstract).Master dissertation of Chinese Academy of Agricultural Sciences (Tianjin, China)
213	39.10	116.93	wheat	1.34	8.40	27.40	1.28	17.18	10.76	153.84	983.28	400.00	8.92	Pang F.(2008). Effects of combined application of organic and inorganic fertilizers on soil ammonia volatilization and nitrate accumulation in winter wheat field.(in Chinese with English abstract).Master dissertation of Chinese Academy of Agricultural Sciences (Tianjin, China)
214	37.62	120.38	wheat	1.51	8.60	12.94	0.78	21.71	7.00	187.44	997.44	0.00	3.71	Wang D. et al.(2006). Effects of nitrogen application level on soil nitrate accumulation and ammonia in high-yielding wheat field.(in Chinese with English abstract).Chinese Journal of Applied Ecology.17(9): 1593-1598
215	37.62	120.38	wheat	1.51	8.60	12.94	0.78	21.71	7.00	187.44	997.44	48.00	5.74	Wang D. et al.(2006). Effects of nitrogen application level on soil nitrate accumulation and ammonia in high-yielding wheat field.(in Chinese with English abstract).Chinese Journal of Applied Ecology.17(9): 1593-1598
216	37.62	120.38	wheat	1.51	8.60	12.94	0.78	21.71	7.00	187.44	997.44	84.00	8.34	Wang D. et al.(2006). Effects of nitrogen application level on soil nitrate accumulation and ammonia in high-yielding wheat field.(in Chinese with English abstract).Chinese Journal of Applied Ecology.17(9): 1593-1598
217	37.62	120.38	wheat	1.51	8.60	12.94	0.78	21.71	7.00	187.44	997.44	120.00	15.76	Wang D. et al.(2006). Effects of nitrogen application level on soil nitrate accumulation and ammonia in high-yielding wheat field.(in Chinese with English abstract).Chinese Journal of Applied Ecology.17(9): 1593-1598
218	37.62	120.38	wheat	1.51	8.60	12.94	0.78	21.71	7.00	187.44	997.44	138.00	29.72	Wang D. et al.(2006). Effects of nitrogen application level on soil nitrate accumulation and ammonia in high-yielding wheat field.(in Chinese with English abstract).Chinese Journal of Applied Ecology.17(9): 1593-1598
219	38.02	115.53	wheat	1.38	8.60	11.70	0.94	17.83	11.65	179.52	1008.48	0.00	8.01	Wang X. et al.(2009). Effect of optimized nitrogen application on ammonia volatilization from soil in winter wheat-summer corn rotation system in Northern China.(in Chinese with English abstract).Plant Nutrition and Fertilizer Science.15(2): 344-351
220	38.02	115.53	wheat	1.38	8.60	11.70	0.94	17.83	11.65	179.52	1008.48	300.00	24.92	Wang X. et al.(2009). Effect of optimized nitrogen application on ammonia volatilization from soil in winter wheat-summer corn rotation system in Northern China.(in Chinese with English abstract).Plant Nutrition and Fertilizer Science.15(2): 344-351
221	38.02	115.53	wheat	1.38	8.60	11.70	0.94	17.83	11.65	179.52	1008.48	210.00	18.69	Wang X. et al.(2009). Effect of optimized nitrogen application on ammonia volatilization from soil in winter wheat-summer corn rotation system in Northern China.(in Chinese with English abstract).Plant Nutrition and Fertilizer Science.15(2): 344-351
222	38.02	115.53	wheat	1.38	8.60	11.70	0.94	17.83	11.65	179.52	1008.48	210.00	18.69	Wang X. et al.(2009). Effect of optimized nitrogen application on ammonia volatilization from soil in winter wheat-summer corn rotation system in Northern China.(in Chinese with English abstract).Plant Nutrition and Fertilizer Science.15(2): 344-351
223	38.13	115.07	wheat	1.51	8.60	19.30	1.00	9.00	10.75	144.24	1026.48	0.00	5.25	Ji Y. et al.(2010). Impact of Different Nitrogen Application on Nitrogen Movement and Gaseous Loss of Winter Wheat Fields.(in Chinese with English abstract).Journal of Soil and Water Conservation.24(03): 113-118
224	38.13	115.07	wheat	1.51	8.60	19.30	1.00	9.00	10.75	144.24	1026.48	75.00	6.03	Ji Y. et al.(2010). Impact of Different Nitrogen Application on Nitrogen Movement and Gaseous Loss of Winter Wheat Fields.(in Chinese with English abstract).Journal of Soil and Water Conservation.24(03): 113-118
225	38.13	115.07	wheat	1.51	8.60	19.30	1.00	9.00	10.75	144.24	1026.48	150.00	7.46	Ji Y. et al.(2010). Impact of Different Nitrogen Application on Nitrogen Movement and Gaseous Loss of Winter Wheat Fields.(in Chinese with English abstract).Journal of Soil and Water Conservation.24(03): 113-118
226	38.13	115.07	wheat	1.51	8.60	19.30	1.00	9.00	10.75	144.24	1026.48	225.00	9.47	Ji Y. et al.(2010). Impact of Different Nitrogen Application on Nitrogen Movement and Gaseous Loss of Winter Wheat Fields.(

257	36.15	117.15	wheat	1.51	7.28	11.75	1.05	21.24	9.83	214.32	937.20	180.00	52.84	Zheng F. et al. (2017). Effects of combined application of manure and chemical fertilizers on ammonia volatilization loss and yield of winter wheat. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> , 23(3): 567-577
258	36.15	117.15	wheat	1.51	7.30	10.93	0.72	21.24	9.83	214.32	937.20	0.00	6.13	Zheng F. et al. (2017). Effects of combined application of manure and chemical fertilizers on ammonia volatilization loss and yield of winter wheat. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> , 23(3): 567-577
259	36.15	117.15	wheat	1.51	7.23	11.41	0.97	21.24	9.83	214.32	937.20	180.00	44.02	Zheng F. et al. (2017). Effects of combined application of manure and chemical fertilizers on ammonia volatilization loss and yield of winter wheat. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> , 23(3): 567-577
260	36.15	117.15	wheat	1.51	7.26	10.35	0.68	21.24	9.83	214.32	937.20	0.00	4.33	Zheng F. et al. (2017). Effects of combined application of manure and chemical fertilizers on ammonia volatilization loss and yield of winter wheat. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> , 23(3): 567-577
261	36.15	117.15	wheat	1.51	7.15	11.02	0.94	21.24	9.83	214.32	937.20	180.00	33.14	Zheng F. et al. (2017). Effects of combined application of manure and chemical fertilizers on ammonia volatilization loss and yield of winter wheat. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> , 23(3): 567-577
262	36.15	117.15	wheat	1.51	7.24	10.06	0.63	21.24	9.83	214.32	937.20	0.00	5.31	Zheng F. et al. (2017). Effects of combined application of manure and chemical fertilizers on ammonia volatilization loss and yield of winter wheat. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> , 23(3): 567-577
263	36.15	117.15	wheat	1.51	7.10	10.46	0.92	21.24	9.83	214.32	937.20	180.00	39.59	Zheng F. et al. (2017). Effects of combined application of manure and chemical fertilizers on ammonia volatilization loss and yield of winter wheat. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> , 23(3): 567-577
264	31.53	120.68	wheat	1.52	7.35	35.00	2.01	20.82	11.87	504.21	858.48	0.00	2.14	Zhang B. et al. (2017). Effects of chlorine-containing nitrogen fertilizer on ammonia volatilization and yields under rice-wheat rotation system in Taihu Lake region. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> , 23(3): 557-566
265	31.53	120.68	wheat	1.52	7.35	35.00	2.01	20.82	11.87	504.21	858.48	168.00	4.68	Zhang B. et al. (2017). Effects of chlorine-containing nitrogen fertilizer on ammonia volatilization and yields under rice-wheat rotation system in Taihu Lake region. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> , 23(3): 557-566
266	31.53	120.68	wheat	1.52	7.35	35.00	2.01	20.82	11.87	504.21	858.48	168.00	4.29	Zhang B. et al. (2017). Effects of chlorine-containing nitrogen fertilizer on ammonia volatilization and yields under rice-wheat rotation system in Taihu Lake region. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> , 23(3): 557-566
267	31.53	120.68	wheat	1.52	7.35	35.00	2.01	20.82	11.87	504.21	858.48	0.00	1.03	Zhang B. et al. (2017). Effects of chlorine-containing nitrogen fertilizer on ammonia volatilization and yields under rice-wheat rotation system in Taihu Lake region. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> , 23(3): 557-566
268	31.53	120.68	wheat	1.52	7.35	35.00	2.01	20.82	11.87	504.21	858.48	168.00	5.88	Zhang B. et al. (2017). Effects of chlorine-containing nitrogen fertilizer on ammonia volatilization and yields under rice-wheat rotation system in Taihu Lake region. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> , 23(3): 557-566
269	31.53	120.68	wheat	1.52	7.35	35.00	2.01	20.82	11.87	504.21	858.48	168.00	3.49	Zhang B. et al. (2017). Effects of chlorine-containing nitrogen fertilizer on ammonia volatilization and yields under rice-wheat rotation system in Taihu Lake region. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> , 23(3): 557-566
270	36.20	117.20	wheat	1.51	7.43	7.31	0.46	24.10	10.93	275.28	970.80	0.00	2.34	Guo X. et al. (2016). Effects of Controlled-Release Fertilizer Dosage and Depth on Wheat Yield and Nitrogen Utilization Efficiency in Reclamation Land. (in Chinese with English abstract). <i>Chinese Journal of Soil Science</i> , 47(4): 928-934
271	36.20	117.20	wheat	1.51	7.43	7.31	0.46	24.10	10.93	275.28	970.80	330.00	15.73	Guo X. et al. (2016). Effects of Controlled-Release Fertilizer Dosage and Depth on Wheat Yield and Nitrogen Utilization Efficiency in Reclamation Land. (in Chinese with English abstract). <i>Chinese Journal of Soil Science</i> , 47(4): 928-934
272	36.20	117.20	wheat	1.51	7.43	7.31	0.46	24.10	10.93	275.28	970.80	165.00	13.97	Guo X. et al. (2016). Effects of Controlled-Release Fertilizer Dosage and Depth on Wheat Yield and Nitrogen Utilization Efficiency in Reclamation Land. (in Chinese with English abstract). <i>Chinese Journal of Soil Science</i> , 47(4): 928-934
273	36.20	117.20	wheat	1.51	7.43	7.31	0.46	24.10	10.93	275.28	970.80	330.00	11.43	Guo X. et al. (2016). Effects of Controlled-Release Fertilizer Dosage and Depth on Wheat Yield and Nitrogen Utilization Efficiency in Reclamation Land. (in Chinese with English abstract). <i>Chinese Journal of Soil Science</i> , 47(4): 928-934
274	36.20	117.20	wheat	1.51	7.43	7.31	0.46	24.10	10.93	275.28	970.80	165.00	9.54	Guo X. et al. (2016). Effects of Controlled-Release Fertilizer Dosage and Depth on Wheat Yield and Nitrogen Utilization Efficiency in Reclamation Land. (in Chinese with English abstract). <i>Chinese Journal of Soil Science</i> , 47(4): 928-934
275	31.55	120.70	wheat	1.48	7.35	35.00	2.01	20.82	11.67	513.45	858.48	0.00	1.43	Zhang W. et al. (2016). Study on effect of thiourea amine on crop yield and ammonia volatilization in a rice-wheat rotation system. (in Chinese with English abstract). Master dissertation of Sichuan Agricultural University (Sichuan, China)
276	31.55	120.70	wheat	1.48	7.35	35.00	2.01	20.82	11.67	513.45	858.48	168.00	5.72	Zhang W. et al. (2016). Study on effect of thiourea amine on crop yield and ammonia volatilization in a rice-wheat rotation system. (in Chinese with English abstract). Master dissertation of Sichuan Agricultural University (Sichuan, China)
277	31.55	120.70	wheat	1.48	7.35	35.00	2.01	20.82	11.67	513.45	858.48	168.00	2.27	Zhang W. et al. (2016). Study on effect of thiourea amine on crop yield and ammonia volatilization in a rice-wheat rotation system. (in Chinese with English abstract). Master dissertation of Sichuan Agricultural University (Sichuan, China)
278	31.62	120.47	wheat	1.52	6.80	28.59	0.85	17.75	10.86	214.20	884.31	0.00	5.67	Wang H. et al. (2016). Suppression of Ammonia Volatilization from Rice-Wheat Rotation Fields Amended with Controlled-Release Urea and Urea. <i>Agronomy Journal</i> , 108(3): 1214-1224
279	31.62	120.47	wheat	1.52	6.80	28.59	0.85	17.75	10.86	214.20	884.31	255.00	47.84	Wang H. et al. (2016). Suppression of Ammonia Volatilization from Rice-Wheat Rotation Fields Amended with Controlled-Release Urea and Urea. <i>Agronomy Journal</i> , 108(3): 1214-1224
280	31.62	120.47	wheat	1.52	6.80	28.59	0.85	17.75	10.86	214.20	884.31	0.00	4.39	Wang H. et al. (2016). Suppression of Ammonia Volatilization from Rice-Wheat Rotation Fields Amended with Controlled-Release Urea and Urea. <i>Agronomy Journal</i> , 108(3): 1214-1224
281	31.62	120.47	wheat	1.52	6.80	28.59	0.85	17.75	10.86	214.20	884.31	255.00	25.88	Wang H. et al. (2016). Suppression of Ammonia Volatilization from Rice-Wheat Rotation Fields Amended with Controlled-Release Urea and Urea. <i>Agronomy Journal</i> , 108(3): 1214-1224
282	31.80	118.83	wheat	1.40	6.40	18.57	1.40	23.22	11.51	612.15	773.01	0.00	4.20	Dong Y. et al. (2017). Effects of biochar reapplication on ammonia volatilization and nitrogen use efficiency during wheat season in a rice-wheat annual rotation system. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> , 23(5): 1258-1267
283	31.80	118.83	wheat	1.40	6.40	18.57	1.40	23.22	11.51	612.15	773.01	250.00	23.40	Dong Y. et al. (2017). Effects of biochar reapplication on ammonia volatilization and nitrogen use efficiency during wheat season in a rice-wheat annual rotation system. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> , 23(5): 1258-1267
284	34.29	108.07	wheat	1.35	8.50	13.02	0.92	17.00	10.20	216.30	793.35	0.00	3.77	Jiang J. (2017). Ammonia Volatilization of Winter Wheat Canopy under Different Nitrogen Rates. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Shanxi, China)
285	34.29	108.07	wheat	1.35	8.50	13.02	0.92	17.00	10.20	216.30	793.35	90.00	7.67	Jiang J. (2017). Ammonia Volatilization of Winter Wheat Canopy under Different Nitrogen Rates. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Shanxi, China)
286	34.29	108.07	wheat	1.35	8.50	13.02	0.92	17.00	10.20	216.30	793.35	180.00	8.70	Jiang J. (2017). Ammonia Volatilization of Winter Wheat Canopy under Different Nitrogen Rates. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Shanxi, China)
287	36.93	117.83	wheat	1.51	7.71	17.40	0.80	13.50	9.80	231.60	978.48	0.00	12.26	Xu C. (2018). Characteristics of greenhouse gas emissions and nitrogen losses under long-term nitrogen fertilization and straw incorporation in the North China Plain. (in Chinese with English abstract). Master dissertation of China Agricultural University (Beijing, China)
288	36.93	117.83	wheat	1.51	7.71	17.40	0.80	13.50	9.80	231.60	978.48	250.00	16.55	Xu C. (2018). Characteristics of greenhouse gas emissions and nitrogen losses under long-term nitrogen fertilization and straw incorporation in the North China Plain. (in Chinese with English abstract). Master dissertation of China Agricultural University (Beijing, China)
289	36.15	117.15	wheat	1.51	8.60	10.06	0.63	21.24	11.15	252.72	970.80	0.00	5.20	Zheng F. (2017). Effects of long-term application of chemical fertilizer and organic manure on nitrogen flow and water use efficiency in winter wheat field. (in Chinese with English abstract). Master dissertation of Shandong Agricultural University (Tai'an, China)
290	36.15	117.15	wheat	1.51	8.60	10.06	0.92	21.24	11.15	252.72	970.80	180.00	35.57	Zheng F. (2017). Effects of long-term application of chemical fertilizer and organic manure on nitrogen flow and water use efficiency in winter wheat field. (in Chinese with English abstract). Master dissertation of Shandong Agricultural University (Tai'an, China)
291	36.15	117.15	wheat	1.51	8.60	9.98	0.59	21.24	11.15	252.72	970.80	0.00	6.09	Zheng F. (2017). Effects of long-term application of chemical fertilizer and organic manure on nitrogen flow and water use efficiency in winter wheat field. (in Chinese with English abstract). Master dissertation of Shandong Agricultural University (Tai'an, China)
292	36.15	117.15	wheat	1.51	8.60	10.24	0.89	21.24	11.15	252.72	970.80	180.00	27.66	Zheng F. (2017). Effects of long-term application of chemical fertilizer and organic manure on nitrogen flow and water use efficiency in winter wheat field. (in Chinese with English abstract). Master dissertation of Shandong Agricultural University (Tai'an, China)
293	31.66	118.72	wheat	1.40	6.10	18.57	2.11	23.22	11.39	589.68	773.01	0.00	8.89	Jiang J. et al. (2018). Assessment of reactive nitrogen mitigation potential of different nitrogen treatments under direct-seeded rice and wheat cropping system. <i>Environmental Science and Pollution Research</i> , 25(20): 20241-20254
294	31.66	118.72	wheat	1.40	6.10	18.57	2.11	23.22	11.39	589.68	773.01	200.00	37.85	Jiang J. et al. (2018). Assessment of reactive nitrogen mitigation potential of different nitrogen treatments under direct-seeded rice and wheat cropping system. <i>Environmental Science and Pollution Research</i> , 25(20): 20241-20254
295	31.66	118.72	wheat	1.40	6.10	18.57	2.11	23.22	11.39	589.68	773.01	200.00	25.06	Jiang J. et al. (2018). Assessment of reactive nitrogen mitigation potential of different nitrogen treatments under direct-seeded rice and wheat cropping system. <i>Environmental Science and Pollution Research</i> , 25(20): 20241-20254
296	31.66	118.72	wheat	1.40	6.10	18.57	2.11	23.22	11.39	589.68	773.01	0.00	27.59	Jiang J. et al. (2018). Assessment of reactive nitrogen mitigation potential of different nitrogen treatments under direct-seeded rice and wheat cropping system. <i>Environmental Science and Pollution Research</i> , 25(20): 20241-20254
297	36.10	117.20	wheat	1.51	7.89	8.33	0.30	21.24	10.74	255.12	1146.96	0.00	7.98	Lu Y. et al. (2011). Effects of different coated controlled-release urea on soil ammonia volatilization in farmland. (in Chinese with English abstract). <i>Chinese Journal of Acta Ecologica Sinica</i> , 31(23): 7133-7140
298	36.10	117.20	wheat	1.51	7.89	10.10	0.30	21.24	10.74	255.12	1146.96	210.00	32.37	Lu Y. et al. (2011). Effects of different coated controlled-release urea on soil ammonia volatilization in farmland. (in Chinese with English abstract). <i>Chinese Journal of Acta Ecologica Sinica</i> , 31(23): 7133-7140
299	36.10	117.20	wheat	1.51	8.51	10.10	0.30	21.24	10.74	255.12	1146.96	300.00	45.41	Lu Y. et al. (2011). Effects of different coated controlled-release urea on soil ammonia volatilization in farmland. (in Chinese with English abstract). <i>Chinese Journal of Acta Ecologica Sinica</i> , 31(23): 7133-7140
300	38.13	115.07	maize	1.51	7.80	19.30	1.00	14.90	24.60	359.80	695.00	0.00	6.04	Li X. (2007). Fate of Fertilizer Nitrogen and Gaseous N Loss in Winter Wheat-Summer Maize Rotation System in North China Plain. (in Chinese with English abstract). Master dissertation of Hebei Agricultural University (Baoding, China)
301	38.13	115.07	maize	1.51	7.80	19.30	1.00	14.90	24.60	359.80	695.00	60.00	9.03	Li X. (2007). Fate of Fertilizer Nitrogen and Gaseous N Loss in Winter Wheat-Summer Maize Rotation System in North China Plain. (in Chinese with English abstract). Master dissertation of Hebei Agricultural University (Baoding, China)
302	38.13	115.07	maize	1.51	7.80	19.30	1.00	14.90	24.60	359.80	695.00	120.00	12.12	Li X. (2007). Fate of Fertilizer Nitrogen and Gaseous N Loss in Winter Wheat-Summer Maize Rotation System in North China Plain. (in Chinese with English abstract). Master dissertation of Hebei Agricultural University (Baoding, China)
303	38.13	115.07	maize	1.51	7.80	19.30	1.00	14.90	24.60	359.80	695.00	180.00	13.73	Li X. (2007). Fate of Fertilizer Nitrogen and Gaseous N Loss in Winter Wheat-Summer Maize Rotation System in North China Plain. (in Chinese with English abstract). Master dissertation of Hebei Agricultural University (Baoding, China)
304	38.13	115.07	maize	1.51	7.80	19.30	1.00	14.90	24.60	359.80	695.00	240.00	18.93	Li X. (2007). Fate of Fertilizer Nitrogen and Gaseous N Loss in Winter Wheat-Summer Maize Rotation System in North China Plain. (in Chinese with English abstract). Master dissertation of Hebei Agricultural University (Baoding, China)
305	28.10	113.00	maize	1.40	5.75	14.57	3.51	31.71	23.60	1150.00	475.00	0.00	10.48	Xie Y. et al. (2016). Effects of reduced CRNF applications on N2O emissions and ammonia volatilization in spring maize soil. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> , 35(3): 596-603
306	28.10	113.00	maize	1.40	5.75	14.57	3.51	31.71	23.60	1150.00	475.00	240.00	31.05	Xie Y. et al. (2016). Effects of reduced CRNF applications on N2O emissions and ammonia volatilization in spring maize soil. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> , 35(3): 596-603
307	39.60	116.00	maize	1.38	8.30	15.90	0.09	19.76	23.93	554.07	850.12	0.00	4.75	Shan N. (2014). Nitrogen Utilization and Loss in Winter Wheat-Summer Maize Rotation System of Beijing Suburb. (in Chinese with English abstract). Master dissertation of Hebei Agricultural University (Baoding, China)
308	39.60	116.00	maize	1.38	8.30	15.90	0.09	19.76	23.93	554.07	850.12	50.00	9.55	Shan N. (2014). Nitrogen Utilization and Loss in Winter Wheat-Summer Maize Rotation System of Beijing Suburb. (in Chinese with English abstract). Master dissertation of Hebei Agricultural University (Baoding, China)
309	39.60	116.00	maize	1.38	8.30	15.90	0.09	19.76	23.93	554.07	850.12	100.00	12.83	Shan N. (2014). Nitrogen Utilization and Loss in Winter Wheat-Summer Maize Rotation System of Beijing Suburb. (in Chinese with English abstract). Master dissertation of Hebei Agricultural University (Baoding, China)
310	39.60	116.00	maize	1.38	8.30	15.90	0.09	19.76	23.93	554.07	850.12	150.00	15.21	Shan N. (2014). Nitrogen Utilization and Loss in Winter Wheat-Summer Maize Rotation System of Beijing Suburb. (in Chinese with English abstract). Master dissertation of Hebei Agricultural University (Baoding, China)
311	39.60	116.00	maize	1.38	8.30	15.90	0.09	19.76	23.93	554.07	850.12	200.00	17.04	Shan N. (2014). Nitrogen Utilization and Loss in Winter Wheat-Summer Maize Rotation System of Beijing Suburb. (in Chinese with English abstract). Master dissertation of Hebei Agricultural University (Baoding, China)
312	39.60	116.00	maize	1.38	8.30	15.90	0.09	19.76	23.93	554.07	850.12	250.00	19.26	Shan N. (2014). Nitrogen Utilization and Loss in Winter Wheat-Summer Maize Rotation System of Beijing Suburb. (in Chinese with English abstract). Master dissertation of Hebei Agricultural University (Baoding, China)
313	39.60	116.00	maize	1.38	8.30	15.90	0.09	19.76	23.93	554.07	850.12	300.00	30.38	Shan N. (2014). Nitrogen Utilization and Loss in Winter Wheat-Summer Maize Rotation System of Beijing Suburb. (in Chinese with English abstract). Master dissertation of Hebei Agricultural University (Baoding, China)
314	39.60	116.00	maize	1.38	8.30	15.90	0.09	19.76	23.93	554.07	850.12	400.00	37.12	Shan N. (2014). Nitrogen Utilization and Loss in Winter Wheat-Summer Maize Rotation System of Beijing Suburb. (in Chinese with English abstract). Master dissertation of Hebei Agricultural University (Baoding, China)
315	41.80	123.50	maize	1.48	7.60	18.82	0.98	22.06	20.70	569.00	990.00	0.00	0.86	Cheng X. (2016). The Effects of Biochar on Nitrogen Utilization and Maize Growth on Brown Soil. (in Chinese with English abstract). Master dissertation of Shenyang Agricultural University (Shenyang, China)
316	41.80	123.50	maize	1.48	7.60	18.82	0.98	22.06	20.70	569.00	990.00	160.00	4.38	Cheng X. (2016). The Effects of Biochar on Nitrogen Utilization and Maize Growth on Brown Soil. (in Chinese with English abstract). Master dissertation of Shenyang Agricultural University (Shenyang, China)
317	3													

344	34.28	108.07	maize	1.35	7.90	13.20	1.30	17.00	22.50	462.00	556.00	100.00	17.80	Han K. et al. (2014). Management of Furrow Irrigation and Nitrogen Application on Summer Maize. <i>Agronomy Journal</i> . 106(4): 1402-1410
345	34.28	108.07	maize	1.35	7.90	13.20	1.30	17.00	22.50	462.00	556.00	230.00	21.80	Han K. et al. (2014). Management of Furrow Irrigation and Nitrogen Application on Summer Maize. <i>Agronomy Journal</i> . 106(4): 1402-1410
346	34.28	108.07	maize	1.35	7.90	13.20	1.30	17.00	22.50	462.00	556.00	300.00	29.40	Han K. et al. (2014). Management of Furrow Irrigation and Nitrogen Application on Summer Maize. <i>Agronomy Journal</i> . 106(4): 1402-1410
347	35.43	117.82	maize	1.52	7.70	11.30	0.74	21.24	24.60	528.00	840.00	0.00	7.35	Wu G. (2012). Effects of nitrogen fertilizer management in wheat growth season on nitrogen utilization and residual effect in winter wheat and summer maize cropping system. (in Chinese with English abstract). Master dissertation of Shandong Agricultural University (Taian, China)
348	35.43	117.82	maize	1.52	7.70	11.30	0.74	21.24	24.60	528.00	840.00	168.75	7.89	Wu G. (2012). Effects of nitrogen fertilizer management in wheat growth season on nitrogen utilization and residual effect in winter wheat and summer maize cropping system. (in Chinese with English abstract). Master dissertation of Shandong Agricultural University (Taian, China)
349	35.43	117.82	maize	1.52	7.70	11.30	0.74	21.24	24.60	528.00	840.00	225.00	8.30	Wu G. (2012). Effects of nitrogen fertilizer management in wheat growth season on nitrogen utilization and residual effect in winter wheat and summer maize cropping system. (in Chinese with English abstract). Master dissertation of Shandong Agricultural University (Taian, China)
350	35.43	117.82	maize	1.52	7.70	11.30	0.74	21.24	24.60	528.00	840.00	281.25	8.81	Wu G. (2012). Effects of nitrogen fertilizer management in wheat growth season on nitrogen utilization and residual effect in winter wheat and summer maize cropping system. (in Chinese with English abstract). Master dissertation of Shandong Agricultural University (Taian, China)
351	35.43	117.82	maize	1.52	7.70	11.30	0.74	21.24	24.60	528.00	840.00	337.50	9.55	Wu G. (2012). Effects of nitrogen fertilizer management in wheat growth season on nitrogen utilization and residual effect in winter wheat and summer maize cropping system. (in Chinese with English abstract). Master dissertation of Shandong Agricultural University (Taian, China)
352	43.80	125.40	maize	1.48	6.63	29.57	1.68	21.72	19.70	485.00	937.00	0.00	8.53	Yan L. et al. (2016). Effect of different fertilization management on nitrogen loss in black soils in Northeast China. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 35(9): 1816-1823.
353	43.80	125.40	maize	1.48	6.63	29.57	1.68	21.72	19.70	485.00	937.00	240.00	26.63	Yan L. et al. (2016). Effect of different fertilization management on nitrogen loss in black soils in Northeast China. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 35(9): 1816-1823.
354	40.30	107.00	maize	1.39	8.20	11.60	0.76	13.09	20.40	96.00	824.00	0.00	3.76	Li Z. et al. (2017). Ammonia volatilization in soil and grain yield of the spring maize under different water-nitrogen management regimes. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 36(4): 799-807.
355	40.30	107.00	maize	1.39	8.20	11.60	0.76	13.09	20.40	96.00	824.00	80.00	14.71	Li Z. et al. (2017). Ammonia volatilization in soil and grain yield of the spring maize under different water-nitrogen management regimes. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 36(4): 799-807.
356	40.30	107.00	maize	1.39	8.20	11.60	0.76	13.09	20.40	96.00	824.00	160.00	18.13	Li Z. et al. (2017). Ammonia volatilization in soil and grain yield of the spring maize under different water-nitrogen management regimes. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 36(4): 799-807.
357	40.30	107.00	maize	1.39	8.20	11.60	0.76	13.09	20.40	96.00	824.00	240.00	22.26	Li Z. et al. (2017). Ammonia volatilization in soil and grain yield of the spring maize under different water-nitrogen management regimes. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 36(4): 799-807.
358	40.30	107.00	maize	1.39	8.20	11.60	0.76	13.09	20.40	96.00	824.00	320.00	29.40	Li Z. et al. (2017). Ammonia volatilization in soil and grain yield of the spring maize under different water-nitrogen management regimes. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 36(4): 799-807.
359	40.30	107.00	maize	1.39	8.20	11.60	0.76	13.09	20.40	96.00	824.00	0.00	3.58	Li Z. et al. (2017). Ammonia volatilization in soil and grain yield of the spring maize under different water-nitrogen management regimes. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 36(4): 799-807.
360	40.30	107.00	maize	1.39	8.20	11.60	0.76	13.09	20.40	96.00	824.00	80.00	16.43	Li Z. et al. (2017). Ammonia volatilization in soil and grain yield of the spring maize under different water-nitrogen management regimes. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 36(4): 799-807.
361	40.30	107.00	maize	1.39	8.20	11.60	0.76	13.09	20.40	96.00	824.00	160.00	20.45	Li Z. et al. (2017). Ammonia volatilization in soil and grain yield of the spring maize under different water-nitrogen management regimes. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 36(4): 799-807.
362	40.30	107.00	maize	1.39	8.20	11.60	0.76	13.09	20.40	96.00	824.00	240.00	24.15	Li Z. et al. (2017). Ammonia volatilization in soil and grain yield of the spring maize under different water-nitrogen management regimes. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 36(4): 799-807.
363	40.30	107.00	maize	1.39	8.20	11.60	0.76	13.09	20.40	96.00	824.00	320.00	32.21	Li Z. et al. (2017). Ammonia volatilization in soil and grain yield of the spring maize under different water-nitrogen management regimes. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 36(4): 799-807.
364	36.58	116.58	maize	1.37	8.20	7.40	0.23	16.27	25.10	379.00	822.00	0.00	3.80	Zhou L. et al. (2016). Comparison of several slow-released nitrogen fertilizers in ammonia volatilization and nitrogen utilization in summer maize field. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> . 22(6): 1449-1457.
365	36.58	116.58	maize	1.37	8.20	7.40	0.23	16.27	25.10	379.00	822.00	180.00	14.90	Zhou L. et al. (2016). Comparison of several slow-released nitrogen fertilizers in ammonia volatilization and nitrogen utilization in summer maize field. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> . 22(6): 1449-1457.
366	36.58	116.58	maize	1.37	8.20	7.40	0.23	16.27	24.90	410.00	822.00	0.00	3.90	Zhou L. et al. (2016). Comparison of several slow-released nitrogen fertilizers in ammonia volatilization and nitrogen utilization in summer maize field. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> . 22(6): 1449-1457.
367	36.58	116.58	maize	1.37	8.20	7.40	0.23	16.27	24.90	410.00	822.00	180.00	17.20	Zhou L. et al. (2016). Comparison of several slow-released nitrogen fertilizers in ammonia volatilization and nitrogen utilization in summer maize field. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> . 22(6): 1449-1457.
368	36.20	117.00	maize	1.48	6.88	15.77	0.69	21.24	24.30	522.00	742.00	0.00	0.65	Zhuang Z. et al. (2016). Effects of humic acid nitrogen fertilizer on corn yield, nitrogen utilization and nitrogen loss. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> . 22(5): 1232-1239.
369	36.20	117.00	maize	1.48	6.88	15.77	0.69	21.24	24.30	522.00	742.00	225.00	6.05	Zhuang Z. et al. (2016). Effects of humic acid nitrogen fertilizer on corn yield, nitrogen utilization and nitrogen loss. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizer</i> . 22(5): 1232-1239.
371	34.28	108.07	maize	1.35	7.97	14.60	1.38	17.00	23.90	380.70	600.00	0.00	2.26	Tian X. (2016). Effects Of Conservation Tillage Practices On The Growth, Water And Nitrogen Utilization Of Summer Maize. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Shanxi, China)
372	34.28	108.07	maize	1.35	7.97	14.60	1.38	17.00	23.90	380.70	600.00	230.00	3.50	Tian X. (2016). Effects Of Conservation Tillage Practices On The Growth, Water And Nitrogen Utilization Of Summer Maize. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Shanxi, China)
373	34.28	108.07	maize	1.35	7.97	14.60	1.38	17.00	23.90	380.70	600.00	0.00	2.54	Tian X. (2016). Effects Of Conservation Tillage Practices On The Growth, Water And Nitrogen Utilization Of Summer Maize. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Shanxi, China)
374	34.28	108.07	maize	1.35	7.97	14.60	1.38	17.00	22.90	278.20	600.00	230.00	3.46	Tian X. (2016). Effects Of Conservation Tillage Practices On The Growth, Water And Nitrogen Utilization Of Summer Maize. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Shanxi, China)
375	34.28	108.07	maize	1.35	7.97	14.60	1.38	17.00	22.90	278.20	600.00	0.00	2.30	Tian X. (2016). Effects Of Conservation Tillage Practices On The Growth, Water And Nitrogen Utilization Of Summer Maize. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Shanxi, China)
376	34.28	108.07	maize	1.35	7.97	14.60	1.38	17.00	22.90	278.20	600.00	230.00	3.49	Tian X. (2016). Effects Of Conservation Tillage Practices On The Growth, Water And Nitrogen Utilization Of Summer Maize. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Shanxi, China)
377	43.80	125.40	maize	1.48	6.63	29.57	1.68	21.72	19.70	485.00	937.00	0.00	8.53	Yan L. (2016). Study on agricultural non-point pollution impact of different fertilization management in maize continuous cropping area in Northeast China. (in Chinese with English abstract). Master dissertation of Jilin University (Changchun, China)
378	43.80	125.40	maize	1.48	6.63	29.57	1.68	21.72	19.70	485.00	937.00	240.00	26.63	Yan L. (2016). Study on agricultural non-point pollution impact of different fertilization management in maize continuous cropping area in Northeast China. (in Chinese with English abstract). Master dissertation of Jilin University (Changchun, China)
379	38.02	115.53	maize	1.38	8.60	11.70	0.94	17.83	25.40	302.00	740.00	0.00	5.26	Wang X. et al. (2009). Effect of optimized nitrogen application on ammonia volatilization from soil in winter wheat-summer corn rotation system in Northern China. (in Chinese with English abstract). <i>Plant Nutrition and Fertilizer Science</i> . 15(2): 344-351.
380	38.02	115.53	maize	1.38	8.60	11.70	0.94	17.83	25.40	302.00	740.00	300.00	27.80	Wang X. et al. (2009). Effect of optimized nitrogen application on ammonia volatilization from soil in winter wheat-summer corn rotation system in Northern China. (in Chinese with English abstract). <i>Plant Nutrition and Fertilizer Science</i> . 15(2): 344-351.
381	38.02	115.53	maize	1.38	8.60	11.70	0.94	17.83	25.40	302.00	740.00	210.00	19.46	Wang X. et al. (2009). Effect of optimized nitrogen application on ammonia volatilization from soil in winter wheat-summer corn rotation system in Northern China. (in Chinese with English abstract). <i>Plant Nutrition and Fertilizer Science</i> . 15(2): 344-351.
382	38.02	115.53	maize	1.38	8.60	11.70	0.94	17.83	25.40	302.00	740.00	210.00	16.36	Wang X. et al. (2009). Effect of optimized nitrogen application on ammonia volatilization from soil in winter wheat-summer corn rotation system in Northern China. (in Chinese with English abstract). <i>Plant Nutrition and Fertilizer Science</i> . 15(2): 344-351.
383	36.08	103.07	maize	1.26	8.20	11.20	0.95	17.35	17.10	279.00	512.00	0.00	3.87	Yang X. et al. (2017). The ammonia volatilization of anthropogenic-alluvial soil in summer maize farmland under different fertilization methods in Gansu Province. (in Chinese with English abstract). <i>Agricultural Research in the Arid Areas</i> . 35(05): 79-88.
384	36.08	103.07	maize	1.26	8.20	11.20	0.95	17.35	17.10	279.00	512.00	138.00	9.58	Yang X. et al. (2017). The ammonia volatilization of anthropogenic-alluvial soil in summer maize farmland under different fertilization methods in Gansu Province. (in Chinese with English abstract). <i>Agricultural Research in the Arid Areas</i> . 35(05): 79-88.
385	36.08	103.07	maize	1.26	8.20	11.20	0.95	17.35	17.10	279.00	512.00	138.00	9.97	Yang X. et al. (2017). The ammonia volatilization of anthropogenic-alluvial soil in summer maize farmland under different fertilization methods in Gansu Province. (in Chinese with English abstract). <i>Agricultural Research in the Arid Areas</i> . 35(05): 79-88.
386	36.08	103.07	maize	1.26	8.20	11.20	0.95	17.35	17.10	279.00	512.00	138.00	11.23	Yang X. et al. (2017). The ammonia volatilization of anthropogenic-alluvial soil in summer maize farmland under different fertilization methods in Gansu Province. (in Chinese with English abstract). <i>Agricultural Research in the Arid Areas</i> . 35(05): 79-88.
387	36.08	103.07	maize	1.26	8.20	11.20	0.95	17.35	17.10	279.00	512.00	138.00	11.05	Yang X. et al. (2017). The ammonia volatilization of anthropogenic-alluvial soil in summer maize farmland under different fertilization methods in Gansu Province. (in Chinese with English abstract). <i>Agricultural Research in the Arid Areas</i> . 35(05): 79-88.
388	40.68	107.30	maize	1.42	7.60	56.72	0.62	23.00	19.90	50.42	748.00	0.00	6.14	Li Z. et al. (2018). Nitrogen Use Efficiency and Ammonia Oxidation of Corn Field with Drip Irrigation in Hetao Irrigation District. (in Chinese with English abstract). <i>Journal of Irrigation and Drainage</i> . 37(11): 37-42-49
389	40.68	107.30	maize	1.42	7.60	56.72	0.62	23.00	19.90	50.42	748.00	162.00	9.26	Li Z. et al. (2018). Nitrogen Use Efficiency and Ammonia Oxidation of Corn Field with Drip Irrigation in Hetao Irrigation District. (in Chinese with English abstract). <i>Journal of Irrigation and Drainage</i> . 37(11): 37-42-49
390	40.68	107.30	maize	1.42	7.60	56.72	0.62	23.00	19.90	50.42	748.00	216.00	10.91	Li Z. et al. (2018). Nitrogen Use Efficiency and Ammonia Oxidation of Corn Field with Drip Irrigation in Hetao Irrigation District. (in Chinese with English abstract). <i>Journal of Irrigation and Drainage</i> . 37(11): 37-42-49
391	40.68	107.30	maize	1.42	7.60	56.72	0.62	23.00	19.90	50.42	748.00	270.00	14.20	Li Z. et al. (2018). Nitrogen Use Efficiency and Ammonia Oxidation of Corn Field with Drip Irrigation in Hetao Irrigation District. (in Chinese with English abstract). <i>Journal of Irrigation and Drainage</i> . 37(11): 37-42-49
392	40.68	107.30	maize	1.42	7.60	56.72	0.62	23.00	19.90	50.42	748.00	324.00	17.56	Li Z. et al. (2018). Nitrogen Use Efficiency and Ammonia Oxidation of Corn Field with Drip Irrigation in Hetao Irrigation District. (in Chinese with English abstract). <i>Journal of Irrigation and Drainage</i> . 37(11): 37-42-49
393	43.57	124.88	maize	1.48	6.70	25.69	1.82	21.72	20.50	420.00	1005.00	0.00	40.07	Xue X. et al. (2018). Effects of loss-controlled urea on ammonia volatilization, N translocation and utilization efficiency in paddy rice. (in Chinese with English abstract). <i>Chinese Journal of Applied Ecology</i> . 29(1): 133-140
394	43.57	124.88	maize	1.48	6.70	25.69	1.82	21.72	20.50	420.00	1005.00	380.00	59.97	Xue X. et al. (2018). Effects of loss-controlled urea on ammonia volatilization, N translocation and utilization efficiency in paddy rice. (in Chinese with English abstract). <i>Chinese Journal of Applied Ecology</i> . 29(1): 133-140
395	40.70	107.30	maize	1.39	8.40	14.60	0.62	23.00	19.90	50.42	748.00	0.00	58.84	Li Y. et al. (2018). Effect of optimized nitrogen application on nitrous oxide emission and ammonia volatilization in Hetao irrigation area. (in Chinese with English abstract). <i>Acta Scientiarum Circumstantiae</i> . 39(2): 578-584
396	40.70	107.30	maize	1.39	8.40	14.60	0.62	23.00	19.90	50.42	748.00	175.00	17.72	Li Y. et al. (2018). Effect of optimized nitrogen application on nitrous oxide emission and ammonia volatilization in Hetao irrigation area. (in Chinese with English abstract). <i>Acta Scientiarum Circumstantiae</i> . 39(2): 578-584
397	40.70	107.30	maize	1.39	8.40	14.60	0.62	23.00	19.90	50.42	748.00	175.00	17.72	Li Y. et al. (2018). Effect of optimized nitrogen application on nitrous oxide emission and ammonia volatilization in Hetao irrigation area. (in Chinese with English abstract). <i>Acta Scientiarum Circumstantiae</i> . 39(2): 578-584
398	43.57	124.88	maize	1.48	5.45	25.69	1.82	21.72	19.70	464.00	937.00	0.00	40.07	Song Z. (2018). Study on the Ecological Environment Effect of Controlled Release Fertilizer Application in Spring Maize in Black Soil Region of Northeast China. (in Chinese with English abstract). Master dissertation of Chinese Academy of Agricultural Sciences (Beijing, China)
399	43.57	124.88	maize	1.48	5.45	25.69	1.82	21.72	19.70	464.00	937.00	180.00	59.97	Song Z. (2018). Study on the Ecological Environment Effect of Controlled Release Fertilizer Application in Spring Maize in Black Soil Region of Northeast China. (in Chinese with English abstract). Master dissertation of Chinese Academy of Agricultural Sciences (Beijing, China)
400	36.93	117.83	maize	1.51	7.71	17.40	0.80	13.50	25.60	429.00	776.00	0.00	18.50	Xu C. (2018). Characteristics of greenhouse gas emissions and nitrogen losses under long-term nitrogen fertilization and straw incorporation in the North China Plain. (in Chinese with English abstract). Master dissertation of China Agricultural University (Beijing, China)
401	36.93	117.83	maize	1.51	7.71	17.40	0.80	13.50	25.60	429.00	776.00	250.00	33.40	Xu C. (2018). Characteristics of greenhouse gas emissions and nitrogen losses under long-term nitrogen fertilization and straw incorporation in the North China Plain. (in Chinese with English abstract). Master dissertation of China Agricultural University (Beijing, China)
402	43.29	124.44	maize	1.48	5.32	20.90	1.27	22.52	20.70	693.00	961.00	0.00	14.22	Xu Z. (2017). Effects of urea ammonium nitrate solution on N uptake, fate and yield of spring maize. (in Chinese with English abstract). Master dissertation of Jilin Agricultural University (Changchun, China)
403	43.29	124.44	maize	1.48	5.32	20.90	1.27	22.52	20.70	693.00	961.00	200.00	27.40	Xu Z. (2017). Effects of urea ammonium nitrate solution on N uptake, fate and yield of spring maize. (in Chinese with English abstract). Master dissertation of Jilin Agricultural University (Changchun, China)
404	43.29	124.44	maize	1.48	5.32	20.90	1.27	22.52	20.70</					









779	44.30	86.10	others	1.39	7.89	5.46	0.89	21.50	19.90	94.00	1004.77	450.00	67.94	Li Q.(2016).Effects of cotton straw and its biochar on soil C and N contents and ammonia volatilization from a drip irrigated cotton field.(in Chinese with English abstract).Master dissertation of Shihezi University (Shihezi, China)
780	44.30	86.10	others	1.39	7.89	5.46	0.89	21.50	19.90	94.00	1004.77	0.00	15.48	Li Q.(2016).Effects of cotton straw and its biochar on soil C and N contents and ammonia volatilization from a drip irrigated cotton field.(in Chinese with English abstract).Master dissertation of Shihezi University (Shihezi, China)
781	44.30	86.10	others	1.39	7.89	5.46	0.89	21.50	19.90	94.00	1004.77	300.00	36.15	Li Q.(2016).Effects of cotton straw and its biochar on soil C and N contents and ammonia volatilization from a drip irrigated cotton field.(in Chinese with English abstract).Master dissertation of Shihezi University (Shihezi, China)
782	44.30	86.10	others	1.39	7.89	5.46	0.89	21.50	19.90	94.00	1004.77	450.00	41.42	Li Q.(2016).Effects of cotton straw and its biochar on soil C and N contents and ammonia volatilization from a drip irrigated cotton field.(in Chinese with English abstract).Master dissertation of Shihezi University (Shihezi, China)
783	44.30	86.10	others	1.39	7.89	5.46	0.89	21.50	19.90	94.00	1004.77	0.00	13.51	Li Q.(2016).Effects of cotton straw and its biochar on soil C and N contents and ammonia volatilization from a drip irrigated cotton field.(in Chinese with English abstract).Master dissertation of Shihezi University (Shihezi, China)
784	44.30	86.10	others	1.39	7.89	5.46	0.89	21.50	19.90	94.00	1004.77	300.00	28.33	Li Q.(2016).Effects of cotton straw and its biochar on soil C and N contents and ammonia volatilization from a drip irrigated cotton field.(in Chinese with English abstract).Master dissertation of Shihezi University (Shihezi, China)
785	44.30	86.10	others	1.39	7.89	5.46	0.89	21.50	19.90	94.00	1004.77	450.00	30.96	Li Q.(2016).Effects of cotton straw and its biochar on soil C and N contents and ammonia volatilization from a drip irrigated cotton field.(in Chinese with English abstract).Master dissertation of Shihezi University (Shihezi, China)
786	40.80	110.50	others	1.39	8.20	11.61	0.91	21.04	16.00	150.00	621.53	0.00	2.03	Wan W et al.(2016).Characteristics of ammonia volatilization and nitrous oxide emission under drip irrigated potato in north of Yinshan of inner mongolia.(in Chinese with English abstract).Chinese Journal of Irrigation and Drainage.35(08):36-41
787	40.80	110.50	others	1.39	8.20	11.61	0.91	21.04	16.00	150.00	621.53	90.00	2.19	Wan W et al.(2016).Characteristics of ammonia volatilization and nitrous oxide emission under drip irrigated potato in north of Yinshan of inner mongolia.(in Chinese with English abstract).Chinese Journal of Irrigation and Drainage.35(08):36-41
788	40.80	110.50	others	1.39	8.20	11.61	0.91	21.04	16.00	150.00	621.53	180.00	2.56	Wan W et al.(2016).Characteristics of ammonia volatilization and nitrous oxide emission under drip irrigated potato in north of Yinshan of inner mongolia.(in Chinese with English abstract).Chinese Journal of Irrigation and Drainage.35(08):36-41
789	40.80	110.50	others	1.39	8.20	11.61	0.91	21.04	16.00	150.00	621.53	270.00	2.97	Wan W et al.(2016).Characteristics of ammonia volatilization and nitrous oxide emission under drip irrigated potato in north of Yinshan of inner mongolia.(in Chinese with English abstract).Chinese Journal of Irrigation and Drainage.35(08):36-41



# Database of NO<sub>3</sub>

Num	Coordinates		Crop type	BD (g cm <sup>-3</sup> )	Soil pH	SOC (g kg <sup>-1</sup> )	TN (%)	Clay (%)	TEMP (°C)	PRECIP (mm)	EVAP (mm)	NFR (mm)	NO <sub>3</sub> emissions (kg N ha <sup>-1</sup> )	Reference
	Lat	Long												
1	31.53	120.68	rice	1.52	6.05	27.80	1.30	20.82	26.70	528.00	804.00	0.00	0.23	Zhao X. et al. (2009). Nitrogen fate and environmental consequence in paddy soil under rice-wheat rotation in the Taihu Lake region, China. <i>Plant and Soil</i> . 319(1-2): 225-234
2	31.53	120.68	rice	1.52	6.05	27.80	1.30	20.82	26.70	528.00	804.00	100.00	0.20	Zhao X. et al. (2009). Nitrogen fate and environmental consequence in paddy soil under rice-wheat rotation in the Taihu Lake region, China. <i>Plant and Soil</i> . 319(1-2): 225-234
3	31.53	120.68	rice	1.52	6.05	27.80	1.30	20.82	26.70	528.00	804.00	300.00	0.48	Zhao X. et al. (2009). Nitrogen fate and environmental consequence in paddy soil under rice-wheat rotation in the Taihu Lake region, China. <i>Plant and Soil</i> . 319(1-2): 225-234
4	31.55	120.70	rice	1.48	7.36	35.00	0.75	20.82	26.70	528.00	804.00	0.00	0.86	Zhang J. et al. (2008). On nutrient leaching amount of rice-wheat rotation field with moonlight lysimeter in Taihu Lake area. (in Chinese with English abstract). <i>Soils</i> . 40(4): 591-595
5	31.55	120.70	rice	1.48	7.36	35.00	0.75	20.82	26.70	528.00	804.00	180.00	1.51	Zhang J. et al. (2008). On nutrient leaching amount of rice-wheat rotation field with moonlight lysimeter in Taihu Lake area. (in Chinese with English abstract). <i>Soils</i> . 40(4): 591-595
6	31.55	120.70	rice	1.48	7.36	35.00	0.75	20.82	26.70	528.00	804.00	270.00	1.63	Zhang J. et al. (2008). On nutrient leaching amount of rice-wheat rotation field with moonlight lysimeter in Taihu Lake area. (in Chinese with English abstract). <i>Soils</i> . 40(4): 591-595
7	31.55	120.70	rice	1.48	7.36	35.00	0.75	20.82	26.70	528.00	804.00	360.00	2.25	Zhang J. et al. (2008). On nutrient leaching amount of rice-wheat rotation field with moonlight lysimeter in Taihu Lake area. (in Chinese with English abstract). <i>Soils</i> . 40(4): 591-595
8	29.92	115.50	rice	1.29	5.85	27.00	1.40	23.00	26.80	668.40	630.00	0.00	1.15	Zhang J. et al. (2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture Ecosystems &amp; Environment</i> . 140(1-2): 164-173
9	29.92	115.50	rice	1.29	5.85	27.00	1.40	23.00	26.80	668.40	630.00	210.00	5.75	Zhang J. et al. (2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture Ecosystems &amp; Environment</i> . 140(1-2): 164-173
10	29.92	115.50	rice	1.29	5.85	27.00	1.40	23.00	26.80	668.40	630.00	0.00	1.22	Zhang J. et al. (2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture Ecosystems &amp; Environment</i> . 140(1-2): 164-173
11	29.92	115.50	rice	1.29	5.85	27.00	1.40	23.00	26.80	668.40	630.00	210.00	4.40	Zhang J. et al. (2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture Ecosystems &amp; Environment</i> . 140(1-2): 164-173
12	29.92	115.50	rice	1.29	5.85	27.00	1.40	23.00	26.80	668.40	630.00	0.00	0.92	Zhang J. et al. (2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture Ecosystems &amp; Environment</i> . 140(1-2): 164-173
13	29.92	115.50	rice	1.29	5.85	27.00	1.40	23.00	26.80	668.40	630.00	210.00	2.30	Zhang J. et al. (2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture Ecosystems &amp; Environment</i> . 140(1-2): 164-173
14	29.92	115.50	rice	1.29	5.85	27.00	1.40	23.00	26.80	668.40	630.00	0.00	0.88	Zhang J. et al. (2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture Ecosystems &amp; Environment</i> . 140(1-2): 164-173
15	29.92	115.50	rice	1.29	5.85	27.00	1.40	23.00	26.80	668.40	630.00	210.00	1.99	Zhang J. et al. (2011). Emissions of N <sub>2</sub> O and NH <sub>3</sub> and nitrogen leaching from direct seeded rice under different tillage practices in central China. <i>Agriculture Ecosystems &amp; Environment</i> . 140(1-2): 164-173
16	31.55	120.70	rice	1.48	7.36	35.00	0.75	20.82	26.70	528.00	804.00	0.00	1.80	Zhang J. et al. (2008). Nitrogen and phosphorus balance under paddy field irrigation-drainage system in south Jiangsu plain. (in Chinese with English abstract). <i>Acta Pedologica Sinica</i> . 45(4): 657-662
17	31.55	120.70	rice	1.48	7.36	35.00	0.75	20.82	26.70	528.00	804.00	180.00	3.40	Zhang J. et al. (2008). Nitrogen and phosphorus balance under paddy field irrigation-drainage system in south Jiangsu plain. (in Chinese with English abstract). <i>Acta Pedologica Sinica</i> . 45(4): 657-662
18	31.55	120.70	rice	1.48	7.36	35.00	0.75	20.82	26.70	528.00	804.00	270.00	3.20	Zhang J. et al. (2008). Nitrogen and phosphorus balance under paddy field irrigation-drainage system in south Jiangsu plain. (in Chinese with English abstract). <i>Acta Pedologica Sinica</i> . 45(4): 657-662
19	31.55	120.70	rice	1.48	7.36	35.00	0.75	20.82	26.70	528.00	804.00	360.00	3.80	Zhang J. et al. (2008). Nitrogen and phosphorus balance under paddy field irrigation-drainage system in south Jiangsu plain. (in Chinese with English abstract). <i>Acta Pedologica Sinica</i> . 45(4): 657-662
20	31.30	119.80	rice	1.28	5.60	15.40	1.79	17.33	26.50	721.20	735.60	0.00	0.01	Zhao X. et al. (2015). Maintaining rice yield and reducing N pollution by substituting winter legume for wheat in a heavily-fertilized rice-based cropping system of southeast China. <i>Agriculture, Ecosystems &amp; Environment</i> . 202: 79-89
21	31.30	119.80	rice	1.28	5.60	15.40	1.79	17.33	26.50	721.20	735.60	240.00	0.07	Zhao X. et al. (2015). Maintaining rice yield and reducing N pollution by substituting winter legume for wheat in a heavily-fertilized rice-based cropping system of southeast China. <i>Agriculture, Ecosystems &amp; Environment</i> . 202: 79-89
22	31.30	119.80	rice	1.28	5.60	15.40	1.79	17.33	26.50	721.20	735.60	240.00	0.12	Zhao X. et al. (2015). Maintaining rice yield and reducing N pollution by substituting winter legume for wheat in a heavily-fertilized rice-based cropping system of southeast China. <i>Agriculture, Ecosystems &amp; Environment</i> . 202: 79-89
23	31.30	119.80	rice	1.28	5.60	15.40	1.79	17.33	26.50	721.20	735.60	240.00	0.66	Zhao X. et al. (2015). Maintaining rice yield and reducing N pollution by substituting winter legume for wheat in a heavily-fertilized rice-based cropping system of southeast China. <i>Agriculture, Ecosystems &amp; Environment</i> . 202: 79-89
24	31.30	119.80	rice	1.28	5.60	15.40	1.79	17.33	26.50	721.20	735.60	240.00	1.24	Zhao X. et al. (2015). Maintaining rice yield and reducing N pollution by substituting winter legume for wheat in a heavily-fertilized rice-based cropping system of southeast China. <i>Agriculture, Ecosystems &amp; Environment</i> . 202: 79-89
25	31.30	119.80	rice	1.28	5.60	15.40	1.79	17.33	26.50	721.20	735.60	240.00	3.01	Zhao X. et al. (2015). Maintaining rice yield and reducing N pollution by substituting winter legume for wheat in a heavily-fertilized rice-based cropping system of southeast China. <i>Agriculture, Ecosystems &amp; Environment</i> . 202: 79-89
26	31.30	119.80	rice	1.28	5.60	15.40	1.79	17.33	26.50	721.20	735.60	240.00	2.48	Zhao X. et al. (2015). Maintaining rice yield and reducing N pollution by substituting winter legume for wheat in a heavily-fertilized rice-based cropping system of southeast China. <i>Agriculture, Ecosystems &amp; Environment</i> . 202: 79-89
27	31.30	119.80	rice	1.28	5.60	15.40	1.79	17.33	26.50	721.20	735.60	240.00	5.37	Zhao X. et al. (2015). Maintaining rice yield and reducing N pollution by substituting winter legume for wheat in a heavily-fertilized rice-based cropping system of southeast China. <i>Agriculture, Ecosystems &amp; Environment</i> . 202: 79-89
28	31.30	119.80	rice	1.28	5.60	15.40	1.79	17.33	26.50	721.20	735.60	240.00	2.97	Zhao X. et al. (2015). Maintaining rice yield and reducing N pollution by substituting winter legume for wheat in a heavily-fertilized rice-based cropping system of southeast China. <i>Agriculture, Ecosystems &amp; Environment</i> . 202: 79-89
29	31.30	119.80	rice	1.28	5.60	15.40	1.79	17.33	26.50	721.20	735.60	240.00	4.05	Zhao X. et al. (2015). Maintaining rice yield and reducing N pollution by substituting winter legume for wheat in a heavily-fertilized rice-based cropping system of southeast China. <i>Agriculture, Ecosystems &amp; Environment</i> . 202: 79-89
30	31.25	121.30	rice	1.35	6.10	35.01	1.40	26.70	26.80	408.00	744.00	0.00	0.38	Lu H. (2007). Relationship between main biological factors and nitrogen and phosphorus transformation and loss in paddy fields. (in Chinese with English abstract). Doctor dissertation of Zhejiang University (Hangzhou, China)
31	31.25	121.30	rice	1.35	6.10	35.01	1.40	26.70	26.80	408.00	744.00	90.00	1.75	Lu H. (2007). Relationship between main biological factors and nitrogen and phosphorus transformation and loss in paddy fields. (in Chinese with English abstract). Doctor dissertation of Zhejiang University (Hangzhou, China)
32	31.25	121.30	rice	1.35	6.10	35.01	1.40	26.70	26.80	408.00	744.00	180.00	1.14	Lu H. (2007). Relationship between main biological factors and nitrogen and phosphorus transformation and loss in paddy fields. (in Chinese with English abstract). Doctor dissertation of Zhejiang University (Hangzhou, China)
33	31.25	121.30	rice	1.35	6.10	35.01	1.40	26.70	26.80	408.00	744.00	270.00	1.73	Lu H. (2007). Relationship between main biological factors and nitrogen and phosphorus transformation and loss in paddy fields. (in Chinese with English abstract). Doctor dissertation of Zhejiang University (Hangzhou, China)
34	31.25	121.30	rice	1.35	6.10	35.01	1.40	26.70	26.80	408.00	744.00	360.00	2.20	Lu H. (2007). Relationship between main biological factors and nitrogen and phosphorus transformation and loss in paddy fields. (in Chinese with English abstract). Doctor dissertation of Zhejiang University (Hangzhou, China)
35	30.87	121.75	rice	1.39	7.90	13.00	1.47	20.25	26.40	456.00	672.00	0.00	14.12	Xiao Y. et al. (2005). Economic values of nitrogen transformation in rice field ecosystems. (in Chinese with English abstract). <i>Chinese Journal of Applied Ecology</i> . 16(9): 1745-1750
36	30.87	121.75	rice	1.39	7.90	13.00	1.47	20.25	26.40	456.00	672.00	225.00	15.99	Xiao Y. et al. (2005). Economic values of nitrogen transformation in rice field ecosystems. (in Chinese with English abstract). <i>Chinese Journal of Applied Ecology</i> . 16(9): 1745-1750
37	30.87	121.75	rice	1.39	7.90	13.00	1.47	20.25	26.40	456.00	672.00	375.00	17.84	Xiao Y. et al. (2005). Economic values of nitrogen transformation in rice field ecosystems. (in Chinese with English abstract). <i>Chinese Journal of Applied Ecology</i> . 16(9): 1745-1750
38	30.87	121.75	rice	1.39	7.90	13.00	1.47	20.25	26.40	456.00	672.00	525.00	21.60	Xiao Y. et al. (2005). Economic values of nitrogen transformation in rice field ecosystems. (in Chinese with English abstract). <i>Chinese Journal of Applied Ecology</i> . 16(9): 1745-1750
39	31.60	120.00	rice	1.47	6.30	27.40	1.40	17.44	26.80	475.20	778.80	0.00	1.63	Lu Y. (1999). Localization of nitrate leaching in paddy soil in Taihu Lake area of southern Jiangsu Province. <i>Chinese Journal of Soil Science</i> . 03: 19-20
40	31.60	120.00	rice	1.47	6.30	27.40	1.40	17.44	26.80	475.20	778.80	162.90	1.90	Lu Y. (1999). Localization of nitrate leaching in paddy soil in Taihu Lake area of southern Jiangsu Province. <i>Chinese Journal of Soil Science</i> . 03: 19-20
41	31.60	120.00	rice	1.47	6.30	27.40	1.40	17.44	26.80	475.20	778.80	338.40	10.41	Lu Y. (1999). Localization of nitrate leaching in paddy soil in Taihu Lake area of southern Jiangsu Province. <i>Chinese Journal of Soil Science</i> . 03: 19-20
42	30.26	106.43	rice	1.35	7.20	13.20	2.32	28.70	27.80	343.20	720.00	0.00	6.40	Yi S. (2005). Nitrogen leaching and utilization in rice-wheat-oilseed rotation system. (in Chinese with English abstract). Master dissertation of Southwest University. (Chongqing, China)
43	30.26	106.43	rice	1.35	7.20	13.20	2.32	28.70	27.80	343.20	720.00	150.00	6.79	Yi S. (2005). Nitrogen leaching and utilization in rice-wheat-oilseed rotation system. (in Chinese with English abstract). Master dissertation of Southwest University. (Chongqing, China)
44	30.26	106.43	rice	1.35	7.20	13.20	2.32	28.70	27.80	343.20	720.00	300.00	6.91	Yi S. (2005). Nitrogen leaching and utilization in rice-wheat-oilseed rotation system. (in Chinese with English abstract). Master dissertation of Southwest University. (Chongqing, China)
45	30.26	106.43	rice	1.35	7.20	13.20	2.32	28.70	27.80	343.20	720.00	450.00	7.55	Yi S. (2005). Nitrogen leaching and utilization in rice-wheat-oilseed rotation system. (in Chinese with English abstract). Master dissertation of Southwest University. (Chongqing, China)
46	30.26	106.43	rice	1.35	7.20	13.20	2.32	28.70	27.80	343.20	720.00	0.00	5.48	Yi S. (2005). Nitrogen leaching and utilization in rice-wheat-oilseed rotation system. (in Chinese with English abstract). Master dissertation of Southwest University. (Chongqing, China)
47	30.26	106.43	rice	1.35	7.20	13.20	2.32	28.70	27.80	343.20	720.00	150.00	6.34	Yi S. (2005). Nitrogen leaching and utilization in rice-wheat-oilseed rotation system. (in Chinese with English abstract). Master dissertation of Southwest University. (Chongqing, China)
48	30.26	106.43	rice	1.35	7.20	13.20	2.32	28.70	27.80	343.20	720.00	300.00	6.56	Yi S. (2005). Nitrogen leaching and utilization in rice-wheat-oilseed rotation system. (in Chinese with English abstract). Master dissertation of Southwest University. (Chongqing, China)
49	30.26	106.43	rice	1.35	7.20	13.20	2.32	28.70	27.80	343.20	720.00	450.00	6.54	Yi S. (2005). Nitrogen leaching and utilization in rice-wheat-oilseed rotation system. (in Chinese with English abstract). Master dissertation of Southwest University. (Chongqing, China)
50	30.12	120.13	rice	1.28	5.40	13.20	1.45	17.33	25.90	944.40	661.20	0.00	0.16	Chen G. et al. (2015). Do high nitrogen use efficiency rice cultivars reduce nitrogen losses from paddy fields. <i>Agriculture Ecosystems &amp; Environment</i> . 209: 26-33
51	30.12	120.13	rice	1.28	5.40	13.20	1.45	17.33	25.90	944.40	661.20	200.00	4.82	Chen G. et al. (2015). Do high nitrogen use efficiency rice cultivars reduce nitrogen losses from paddy fields. <i>Agriculture Ecosystems &amp; Environment</i> . 209: 26-33
52	30.12	120.13	rice	1.28	5.40	13.20	1.45	17.33	25.90	944.40	661.20	200.00	4.17	Chen G. et al. (2015). Do high nitrogen use efficiency rice cultivars reduce nitrogen losses from paddy fields. <i>Agriculture Ecosystems &amp; Environment</i> . 209: 26-33
53	30.12	120.13	rice	1.28	5.40	13.20	1.45	17.33	25.90	944.40	661.20	200.00	3.71	Chen G. et al. (2015). Do high nitrogen use efficiency rice cultivars reduce nitrogen losses from paddy fields. <i>Agriculture Ecosystems &amp; Environment</i> . 209: 26-33
54	30.12	120.13	rice	1.28	5.40	13.20	1.45	17.33	25.90	944.40	661.20	200.00	5.26	Chen G. et al. (2015). Do high nitrogen use efficiency rice cultivars reduce nitrogen losses from paddy fields. <i>Agriculture Ecosystems &amp; Environment</i> . 209: 26-33
55	30.12	120.13	rice	1.28	5.40	13.20	1.45	17.33	25.90	944.40	661.20	200.00	4.46	Chen G. et al. (2015). Do high nitrogen use efficiency rice cultivars reduce nitrogen losses from paddy fields. <i>Agriculture Ecosystems &amp; Environment</i> . 209: 26-33
56	30.12	120.13	rice	1.28	5.40	13.20	1.45	17.33	25.90	944.40	661.20	200.00	4.62	Chen G. et al. (2015). Do high nitrogen use efficiency rice cultivars reduce nitrogen losses from paddy fields. <i>Agriculture Ecosystems &amp; Environment</i> . 209: 26-33
57	31.70	120.80	rice	1.52	6.40	28.40	1.30	20.82	26.70	528.00	804.00	0.00	0.23	Xiao Y. et al. (2007). Assessment of Nitrogen Pollutant Sources in Surface Waters of Taihu Lake Region. <i>Polosphere</i> . 17(2): 200-208
58	31.70	120.80	rice	1.52	6.40	28.40	1.30	20.82	26.70	528.00	804.00	200.00	0.30	Xiao Y. et al. (2007). Assessment of Nitrogen Pollutant Sources in Surface Waters of Taihu Lake Region. <i>Polosphere</i> . 17(2): 200-208
59	31.70	120.80	rice	1.52	6.40	28.40	1.30	20.82	26.70	528.00	804.00	300.00	0.48	Xiao Y. et al. (2007). Assessment of Nitrogen Pollutant Sources in Surface Waters of Taihu Lake Region. <i>Polosphere</i> . 17(2): 200-208
60	23.35	115.90	rice	1.35	7.20	13.20	2.32	28.70	27.80	343.20	720.0			

91	28.23	113.72	rice	1.36	5.70	13.97	1.14	31.71	25.50	1068.00	516.00	180.00	24.67	Li X. et al. (2015). Effect of reducing amount of controlled release urea on nitrogen runoff and leakage loss in paddy field. (in Chinese with English abstract). <i>Journal of Soil and Water Conservation</i> . 29(5): 70-74
92	45.33	133.00	rice	1.26	6.92	61.20	1.62	23.31	19.20	396.00	684.00	0.00	1.22	Meng X. (2012). Research to utilize and loss of nitrogen and impact on environment in rice field. (in Chinese with English abstract). Master dissertation of Northeast Agricultural University (Harbin, China)
93	45.33	133.00	rice	1.26	6.92	61.20	1.62	23.31	19.20	396.00	684.00	103.30	1.94	Meng X. (2012). Research to utilize and loss of nitrogen and impact on environment in rice field. (in Chinese with English abstract). Master dissertation of Northeast Agricultural University (Harbin, China)
94	45.33	133.00	rice	1.26	6.92	61.20	1.62	23.31	19.20	396.00	684.00	103.30	2.26	Meng X. (2012). Research to utilize and loss of nitrogen and impact on environment in rice field. (in Chinese with English abstract). Master dissertation of Northeast Agricultural University (Harbin, China)
95	45.33	133.00	rice	1.26	6.92	61.20	1.62	23.31	19.20	396.00	684.00	82.70	1.36	Meng X. (2012). Research to utilize and loss of nitrogen and impact on environment in rice field. (in Chinese with English abstract). Master dissertation of Northeast Agricultural University (Harbin, China)
96	45.33	133.00	rice	1.26	6.92	61.20	1.62	23.31	19.20	396.00	684.00	82.70	1.49	Meng X. (2012). Research to utilize and loss of nitrogen and impact on environment in rice field. (in Chinese with English abstract). Master dissertation of Northeast Agricultural University (Harbin, China)
97	45.33	133.00	rice	1.26	6.92	61.20	1.62	23.31	19.20	396.00	684.00	82.70	1.15	Meng X. (2012). Research to utilize and loss of nitrogen and impact on environment in rice field. (in Chinese with English abstract). Master dissertation of Northeast Agricultural University (Harbin, China)
98	39.60	116.00	wheat	1.36	8.30	15.90	0.93	19.76	5.30	96.00	888.00	0.00	1.73	Shan N. (2014). Nitrogen utilization and loss in wheat wheat-summer maize rotation system of Beijing suburb. (in Chinese with English abstract). Master dissertation of Hebei Agricultural University (Baoding, China)
99	39.60	116.00	wheat	1.36	8.30	15.90	0.93	19.76	5.30	96.00	888.00	50.00	1.86	Shan N. (2014). Nitrogen utilization and loss in wheat wheat-summer maize rotation system of Beijing suburb. (in Chinese with English abstract). Master dissertation of Hebei Agricultural University (Baoding, China)
100	39.60	116.00	wheat	1.36	8.30	15.90	0.93	19.76	5.30	96.00	888.00	100.00	2.27	Shan N. (2014). Nitrogen utilization and loss in wheat wheat-summer maize rotation system of Beijing suburb. (in Chinese with English abstract). Master dissertation of Hebei Agricultural University (Baoding, China)
101	39.60	116.00	wheat	1.36	8.30	15.90	0.93	19.76	5.30	96.00	888.00	150.00	2.42	Shan N. (2014). Nitrogen utilization and loss in wheat wheat-summer maize rotation system of Beijing suburb. (in Chinese with English abstract). Master dissertation of Hebei Agricultural University (Baoding, China)
102	39.60	116.00	wheat	1.36	8.30	15.90	0.93	19.76	5.30	96.00	888.00	200.00	2.77	Shan N. (2014). Nitrogen utilization and loss in wheat wheat-summer maize rotation system of Beijing suburb. (in Chinese with English abstract). Master dissertation of Hebei Agricultural University (Baoding, China)
103	39.60	116.00	wheat	1.36	8.30	15.90	0.93	19.76	5.30	96.00	888.00	250.00	2.94	Shan N. (2014). Nitrogen utilization and loss in wheat wheat-summer maize rotation system of Beijing suburb. (in Chinese with English abstract). Master dissertation of Hebei Agricultural University (Baoding, China)
104	39.60	116.00	wheat	1.36	8.30	15.90	0.93	19.76	5.30	96.00	888.00	300.00	3.13	Shan N. (2014). Nitrogen utilization and loss in wheat wheat-summer maize rotation system of Beijing suburb. (in Chinese with English abstract). Master dissertation of Hebei Agricultural University (Baoding, China)
105	39.60	116.00	wheat	1.36	8.30	15.90	0.93	19.76	5.30	96.00	888.00	400.00	4.10	Shan N. (2014). Nitrogen utilization and loss in wheat wheat-summer maize rotation system of Beijing suburb. (in Chinese with English abstract). Master dissertation of Hebei Agricultural University (Baoding, China)
106	31.27	105.47	wheat	1.32	8.30	15.25	0.89	18.20	12.20	218.40	491.40	0.00	2.27	Zhou M. et al. (2014). N2O and CH4 emissions, and N2O3-leaching on a crop-wild basis from a subtropical rain-fed wheat-maize rotation in response to different types of nitrogen fertilizer. <i>Ecosystems</i> . 17(2): 286-301
107	31.27	105.47	wheat	1.32	8.30	15.25	0.89	18.20	12.20	218.40	491.40	130.00	1.35	Zhou M. et al. (2014). N2O and CH4 emissions, and N2O3-leaching on a crop-wild basis from a subtropical rain-fed wheat-maize rotation in response to different types of nitrogen fertilizer. <i>Ecosystems</i> . 17(2): 286-301
108	34.07	108.03	wheat	1.20	7.38	17.06	1.02	17.00	21.80	303.00	939.00	0.00	5.77	Ding Y. (2015). Characteristics of nitrogen fertilizer utilization and apparent N budget in cultivated lands under a winter wheat-summer maize rotation system in Guanzhong plain. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Yangling, China)
109	34.07	108.03	wheat	1.20	7.38	17.06	1.02	17.00	21.80	303.00	939.00	75.00	8.22	Ding Y. (2015). Characteristics of nitrogen fertilizer utilization and apparent N budget in cultivated lands under a winter wheat-summer maize rotation system in Guanzhong plain. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Yangling, China)
110	34.07	108.03	wheat	1.20	7.38	17.06	1.02	17.00	21.80	303.00	939.00	150.00	11.85	Ding Y. (2015). Characteristics of nitrogen fertilizer utilization and apparent N budget in cultivated lands under a winter wheat-summer maize rotation system in Guanzhong plain. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Yangling, China)
111	34.07	108.03	wheat	1.20	7.38	17.06	1.02	17.00	21.80	303.00	939.00	225.00	18.07	Ding Y. (2015). Characteristics of nitrogen fertilizer utilization and apparent N budget in cultivated lands under a winter wheat-summer maize rotation system in Guanzhong plain. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Yangling, China)
112	34.07	108.03	wheat	1.20	7.38	17.06	1.02	17.00	21.80	303.00	939.00	300.00	1.84	Ding Y. (2015). Characteristics of nitrogen fertilizer utilization and apparent N budget in cultivated lands under a winter wheat-summer maize rotation system in Guanzhong plain. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Yangling, China)
113	34.07	108.03	wheat	1.20	7.38	17.06	1.02	17.00	21.80	303.00	939.00	375.00	2.50	Ding Y. (2015). Characteristics of nitrogen fertilizer utilization and apparent N budget in cultivated lands under a winter wheat-summer maize rotation system in Guanzhong plain. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Yangling, China)
114	34.07	108.03	wheat	1.20	7.38	17.06	1.02	17.00	21.80	303.00	939.00	450.00	3.12	Ding Y. (2015). Characteristics of nitrogen fertilizer utilization and apparent N budget in cultivated lands under a winter wheat-summer maize rotation system in Guanzhong plain. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Yangling, China)
115	34.07	108.03	wheat	1.20	7.38	17.06	1.02	17.00	21.80	303.00	939.00	525.00	3.22	Ding Y. (2015). Characteristics of nitrogen fertilizer utilization and apparent N budget in cultivated lands under a winter wheat-summer maize rotation system in Guanzhong plain. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Yangling, China)
116	35.00	114.40	wheat	1.55	8.30	14.23	0.88	9.60	10.80	199.20	888.00	0.00	0.00	Ding Y. (2015). Characteristics of nitrogen fertilizer utilization and apparent N budget in cultivated lands under a winter wheat-summer maize rotation system in Guanzhong plain. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Yangling, China)
117	35.00	114.40	wheat	1.55	8.30	14.23	0.88	9.60	10.80	199.20	888.00	248.70	0.00	Zhu A. (2005). Water balance and nitrate leaching losses under intensive crop production with ochric aquatic camboos in North China Plain. <i>Environmental International</i> 31(6): 904-912
118	35.00	114.40	wheat	1.55	8.30	14.23	0.88	9.60	10.80	199.20	888.00	287.00	51.70	Zhu A. (2005). Water balance and nitrate leaching losses under intensive crop production with ochric aquatic camboos in North China Plain. <i>Environmental International</i> 31(6): 904-912
119	34.07	108.03	wheat	1.20	7.38	17.06	1.02	17.00	21.80	303.00	939.00	0.00	5.76	Yin X. (2010). Characteristics of nitrogen fertilizer utilization and nitrate-N leaching in the Guanzhong area. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Yangling, China)
120	34.07	108.03	wheat	1.20	7.38	17.06	1.02	17.00	21.80	303.00	939.00	191.00	19.85	Yin X. (2010). Characteristics of nitrogen fertilizer utilization and nitrate-N leaching in the Guanzhong area. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Yangling, China)
121	34.07	108.03	wheat	1.20	7.38	17.06	1.02	17.00	21.80	303.00	939.00	382.00	11.87	Yin X. (2010). Characteristics of nitrogen fertilizer utilization and nitrate-N leaching in the Guanzhong area. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Yangling, China)
122	34.07	108.03	wheat	1.20	7.38	17.06	1.02	17.00	21.80	303.00	939.00	573.00	8.22	Yin X. (2010). Characteristics of nitrogen fertilizer utilization and nitrate-N leaching in the Guanzhong area. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Yangling, China)
123	34.07	108.03	wheat	1.20	7.38	17.06	1.02	17.00	21.80	303.00	939.00	764.00	18.01	Yin X. (2010). Characteristics of nitrogen fertilizer utilization and nitrate-N leaching in the Guanzhong area. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Yangling, China)
124	34.77	117.13	wheat	1.15	8.30	15.29	1.23	20.35	9.10	196.80	705.60	0.00	0.07	Tan D. et al. (2013). An in situ study of inorganic nitrogen flow under different fertilization treatments on a wheat-maize rotation system surrounding Nansi Lake, China. <i>Agricultural Water Management</i> . 123: 45-54
125	34.77	117.13	wheat	1.15	8.30	15.29	1.23	20.35	9.10	196.80	705.60	240.00	0.09	Tan D. et al. (2013). An in situ study of inorganic nitrogen flow under different fertilization treatments on a wheat-maize rotation system surrounding Nansi Lake, China. <i>Agricultural Water Management</i> . 123: 45-54
126	34.77	117.13	wheat	1.15	8.30	15.29	1.23	20.35	9.10	196.80	705.60	0.00	0.29	Tan D. et al. (2013). An in situ study of inorganic nitrogen flow under different fertilization treatments on a wheat-maize rotation system surrounding Nansi Lake, China. <i>Agricultural Water Management</i> . 123: 45-54
127	34.77	117.13	wheat	1.15	8.30	15.29	1.23	20.35	9.10	196.80	705.60	180.00	0.26	Tan D. et al. (2013). An in situ study of inorganic nitrogen flow under different fertilization treatments on a wheat-maize rotation system surrounding Nansi Lake, China. <i>Agricultural Water Management</i> . 123: 45-54
128	31.53	120.68	wheat	1.52	6.05	27.80	1.30	20.82	12.40	420.00	693.00	0.00	3.60	Zhao X. et al. (2009). Nitrogen fate and environmental consequence in paddy soil under rice-wheat rotation in the Taihu Lake region, China. <i>Plant and Soil</i> . 319(1-2): 225-234
129	31.53	120.68	wheat	1.52	6.05	27.80	1.30	20.82	12.40	420.00	693.00	100.00	2.71	Zhao X. et al. (2009). Nitrogen fate and environmental consequence in paddy soil under rice-wheat rotation in the Taihu Lake region, China. <i>Plant and Soil</i> . 319(1-2): 225-234
130	31.53	120.68	wheat	1.52	6.05	27.80	1.30	20.82	12.40	420.00	693.00	250.00	5.81	Zhao X. et al. (2009). Nitrogen fate and environmental consequence in paddy soil under rice-wheat rotation in the Taihu Lake region, China. <i>Plant and Soil</i> . 319(1-2): 225-234
131	35.20	107.67	wheat	1.38	8.30	10.50	1.02	22.80	19.90	385.50	933.00	0.00	6.00	Chen L. (2007). Research on nitrogen recycle and its effect on environment in dry-land of losses plateau. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Yangling, China)
132	35.20	107.67	wheat	1.38	8.30	10.50	1.02	22.80	19.90	385.50	933.00	120.00	73.50	Chen L. (2007). Research on nitrogen recycle and its effect on environment in dry-land of losses plateau. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Yangling, China)
133	35.20	107.67	wheat	1.38	8.30	10.50	1.02	22.80	19.90	385.50	933.00	240.00	44.40	Chen L. (2007). Research on nitrogen recycle and its effect on environment in dry-land of losses plateau. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Yangling, China)
134	40.13	116.70	wheat	1.32	8.30	46.03	0.93	16.70	7.60	120.00	888.00	0.00	1.40	Huang M. et al. (2011). Leaching losses of nitrate nitrogen and dissolved organic nitrogen from a yearly two crops system, wheat-maize, under monsoon situations. <i>Nutrient Cycling Agroecosystems</i> . 91(1): 77-89
135	40.13	116.70	wheat	1.32	8.30	46.03	0.93	16.70	7.60	120.00	888.00	180.00	3.00	Huang M. et al. (2011). Leaching losses of nitrate nitrogen and dissolved organic nitrogen from a yearly two crops system, wheat-maize, under monsoon situations. <i>Nutrient Cycling Agroecosystems</i> . 91(1): 77-89
136	40.13	116.70	wheat	1.32	8.30	46.03	0.93	16.70	7.60	120.00	888.00	260.00	6.20	Huang M. et al. (2011). Leaching losses of nitrate nitrogen and dissolved organic nitrogen from a yearly two crops system, wheat-maize, under monsoon situations. <i>Nutrient Cycling Agroecosystems</i> . 91(1): 77-89
137	40.13	116.70	wheat	1.32	8.30	46.03	0.93	16.70	7.60	120.00	888.00	360.00	13.30	Huang M. et al. (2011). Leaching losses of nitrate nitrogen and dissolved organic nitrogen from a yearly two crops system, wheat-maize, under monsoon situations. <i>Nutrient Cycling Agroecosystems</i> . 91(1): 77-89
138	31.38	121.53	wheat	1.36	7.00	27.58	1.23	25.00	12.60	483.00	621.60	0.00	1.48	Mao G. et al. (2006). Nitrogen loss in rice-wheat cropping farmland and its control measures. (in Chinese with English abstract). <i>Acta Agriculturae Shanghai</i> . 22(4): 86-92
139	31.38	121.53	wheat	1.36	7.00	27.58	1.23	25.00	12.60	483.00	621.60	213.50	10.60	Mao G. et al. (2006). Nitrogen loss in rice-wheat cropping farmland and its control measures. (in Chinese with English abstract). <i>Acta Agriculturae Shanghai</i> . 22(4): 86-92
140	31.38	121.53	wheat	1.36	7.00	27.58	1.23	25.00	12.60	483.00	621.60	381.50	9.00	Mao G. et al. (2006). Nitrogen loss in rice-wheat cropping farmland and its control measures. (in Chinese with English abstract). <i>Acta Agriculturae Shanghai</i> . 22(4): 86-92
141	30.70	120.70	wheat	1.35	6.00	19.20	1.30	26.70	11.90	546.00	819.00	0.00	4.60	Ni X. et al. (2012). Effects of different nitrogen fertilizer rates on nitrate leaching characteristics and wheat yield in paddy field in dry period. (in Chinese with English abstract). <i>Acta Agriculturae Zhejiangensis</i> . 24(4): 670-675
142	30.70	120.70	wheat	1.35	6.00	19.20	1.30	26.70	11.90	546.00	819.00	80.00	8.60	Ni X. et al. (2012). Effects of different nitrogen fertilizer rates on nitrate leaching characteristics and wheat yield in paddy field in dry period. (in Chinese with English abstract). <i>Acta Agriculturae Zhejiangensis</i> . 24(4): 670-675
143	30.70	120.70	wheat	1.35	6.00	19.20	1.30	26.70	11.90	546.00	819.00	160.00	12.10	Ni X. et al. (2012). Effects of different nitrogen fertilizer rates on nitrate leaching characteristics and wheat yield in paddy field in dry period. (in Chinese with English abstract). <i>Acta Agriculturae Zhejiangensis</i> . 24(4): 670-675
144	30.70	120.70	wheat	1.35	6.00	19.20	1.30	26.70	11.90	546.00	819.00	270.00	14.50	Ni X. et al. (2012). Effects of different nitrogen fertilizer rates on nitrate leaching characteristics and wheat yield in paddy field in dry period. (in Chinese with English abstract). <i>Acta Agriculturae Zhejiangensis</i> . 24(4): 670-675
145	30.70	120.70	wheat	1.35	6.00	19.20	1.30	26.70	11.90	546.00	819.00	360.00	17.10	Ni X. et al. (2012). Effects of different nitrogen fertilizer rates on nitrate leaching characteristics and wheat yield in paddy field in dry period. (in Chinese with English abstract). <i>Acta Agriculturae Zhejiangensis</i> . 24(4): 670-675
146	31.70	120.70	wheat	1.40	6.40	28.40	1.40	20.82	12.40	420.00	693.00	0.00	17.80	Wang J. et al. (2011). Characteristics of nitrogen leaching of rice-wheat rotation field in Taihu Lake area. (in Chinese with English abstract). <i>Chinese Journal of Eco-Agriculture</i> . 9(1): 16-18
147	31.70	120.70	wheat	1.40	6.40	28.40	1.40	20.82	12.40	420.00	693.00	150.00	23.32	Wang J. et al. (2011). Characteristics of nitrogen leaching of rice-wheat rotation field in Taihu Lake area. (in Chinese with English abstract). <i>Chinese Journal of Eco-Agriculture</i> . 9(1): 16-18
148	31.70	120.70	wheat	1.40										

187	37.45	113.50	Wheat	1.46	8.20	17.20	0.82	18.00	8.96	139.20	904.80	350.00	9.00	Liu W. et al. (2006). Nitrogen Leaching in Soil and Recommendation of Nitrogen and Irrigation. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 25(6): 1541-1546
188	30.43	106.43	wheat	1.35	7.70	12.20	2.32	28.70	14.30	336.00	441.00	0.00	1.62	Yi S. et al. (2004). Nitrogen transference and leaching loss in growth period of wheat in purple soil. (in Chinese with English abstract). <i>Journal of Soil and Water Conservation</i> . 18(4): 46-49
189	30.43	106.43	wheat	1.35	7.70	12.20	2.32	28.70	14.30	336.00	441.00	150.00	4.01	Yi S. et al. (2004). Nitrogen transference and leaching loss in growth period of wheat in purple soil. (in Chinese with English abstract). <i>Journal of Soil and Water Conservation</i> . 18(4): 46-49
190	30.43	106.43	wheat	1.35	7.70	12.20	2.32	28.70	14.30	336.00	441.00	225.00	4.83	Yi S. et al. (2004). Nitrogen transference and leaching loss in growth period of wheat in purple soil. (in Chinese with English abstract). <i>Journal of Soil and Water Conservation</i> . 18(4): 46-49
191	30.43	106.43	wheat	1.35	7.70	12.20	2.32	28.70	14.30	336.00	441.00	150.00	3.42	Yi S. et al. (2004). Nitrogen transference and leaching loss in growth period of wheat in purple soil. (in Chinese with English abstract). <i>Journal of Soil and Water Conservation</i> . 18(4): 46-49
192	30.43	106.43	wheat	1.35	7.70	12.20	2.32	28.70	14.30	336.00	441.00	225.00	3.92	Yi S. et al. (2004). Nitrogen transference and leaching loss in growth period of wheat in purple soil. (in Chinese with English abstract). <i>Journal of Soil and Water Conservation</i> . 18(4): 46-49
193	30.43	106.43	wheat	1.35	7.70	12.20	2.32	28.70	14.30	336.00	441.00	0.00	1.55	Yi S. et al. (2004). Nitrogen transference and leaching loss in growth period of wheat in purple soil. (in Chinese with English abstract). <i>Journal of Soil and Water Conservation</i> . 18(4): 46-49
194	30.43	106.43	wheat	1.35	7.20	13.20	2.32	28.70	14.30	336.00	441.00	150.00	4.27	Yi S. et al. (2004). Nitrogen transference and leaching loss in growth period of wheat in purple soil. (in Chinese with English abstract). <i>Journal of Soil and Water Conservation</i> . 18(4): 46-49
195	30.43	106.43	wheat	1.35	7.20	13.20	2.32	28.70	14.30	336.00	441.00	225.00	6.04	Yi S. et al. (2004). Nitrogen transference and leaching loss in growth period of wheat in purple soil. (in Chinese with English abstract). <i>Journal of Soil and Water Conservation</i> . 18(4): 46-49
196	30.43	106.43	wheat	1.35	7.20	13.20	2.32	28.70	14.30	336.00	441.00	150.00	4.28	Yi S. et al. (2004). Nitrogen transference and leaching loss in growth period of wheat in purple soil. (in Chinese with English abstract). <i>Journal of Soil and Water Conservation</i> . 18(4): 46-49
197	30.43	106.43	wheat	1.35	7.20	13.20	2.32	28.70	14.30	336.00	441.00	225.00	5.67	Yi S. et al. (2004). Nitrogen transference and leaching loss in growth period of wheat in purple soil. (in Chinese with English abstract). <i>Journal of Soil and Water Conservation</i> . 18(4): 46-49
198	30.43	106.43	wheat	1.35	5.20	12.00	2.32	28.70	14.30	336.00	441.00	0.00	1.92	Yi S. et al. (2004). Nitrogen transference and leaching loss in growth period of wheat in purple soil. (in Chinese with English abstract). <i>Journal of Soil and Water Conservation</i> . 18(4): 46-49
199	30.43	106.43	wheat	1.35	5.20	12.00	2.32	28.70	14.30	336.00	441.00	150.00	4.99	Yi S. et al. (2004). Nitrogen transference and leaching loss in growth period of wheat in purple soil. (in Chinese with English abstract). <i>Journal of Soil and Water Conservation</i> . 18(4): 46-49
200	30.43	106.43	wheat	1.35	5.20	12.00	2.32	28.70	14.30	336.00	441.00	225.00	6.23	Yi S. et al. (2004). Nitrogen transference and leaching loss in growth period of wheat in purple soil. (in Chinese with English abstract). <i>Journal of Soil and Water Conservation</i> . 18(4): 46-49
201	30.43	106.43	wheat	1.35	5.20	12.00	2.32	28.70	14.30	336.00	441.00	150.00	4.54	Yi S. et al. (2004). Nitrogen transference and leaching loss in growth period of wheat in purple soil. (in Chinese with English abstract). <i>Journal of Soil and Water Conservation</i> . 18(4): 46-49
202	30.43	106.43	wheat	1.35	5.20	12.00	2.32	28.70	14.30	336.00	441.00	225.00	5.57	Yi S. et al. (2004). Nitrogen transference and leaching loss in growth period of wheat in purple soil. (in Chinese with English abstract). <i>Journal of Soil and Water Conservation</i> . 18(4): 46-49
203	35.00	114.30	Wheat	1.55	8.30	14.23	0.88	13.64	10.80	199.20	888.00	283.20	51.70	Zhu A. et al. (2003). Soil water deep drainage and nitrate leaching in fluvo-aquic soil. (in Chinese with English abstract). <i>Journal of Ecology and Rural Environment</i> . 19(1): 27-30
204	35.00	114.30	Wheat	1.55	8.30	14.23	0.88	13.64	10.80	199.20	888.00	283.20	51.70	Zhu A. et al. (2003). Soil water deep drainage and nitrate leaching in fluvo-aquic soil. (in Chinese with English abstract). <i>Journal of Ecology and Rural Environment</i> . 19(1): 27-30
205	30.43	106.43	wheat	1.35	7.70	12.20	2.32	28.70	14.30	336.00	441.00	0.00	3.99	Yu G. et al. (1999). Study of N migration and leaching loss in purple soils. (in Chinese with English abstract). <i>Journal of Southwest University</i> . (3): 22-26
206	30.43	106.43	wheat	1.35	7.70	12.20	2.32	28.70	14.30	336.00	441.00	150.00	6.82	Yu G. et al. (1999). Study of N migration and leaching loss in purple soils. (in Chinese with English abstract). <i>Journal of Southwest University</i> . (3): 22-26
207	30.43	106.43	wheat	1.35	7.70	12.20	2.32	28.70	14.30	336.00	441.00	225.00	7.92	Yu G. et al. (1999). Study of N migration and leaching loss in purple soils. (in Chinese with English abstract). <i>Journal of Southwest University</i> . (3): 22-26
208	30.43	106.43	wheat	1.35	7.70	12.20	2.32	28.70	14.30	336.00	441.00	150.00	6.07	Yu G. et al. (1999). Study of N migration and leaching loss in purple soils. (in Chinese with English abstract). <i>Journal of Southwest University</i> . (3): 22-26
209	30.43	106.43	wheat	1.35	7.70	12.20	2.32	28.70	14.30	336.00	441.00	225.00	7.66	Yu G. et al. (1999). Study of N migration and leaching loss in purple soils. (in Chinese with English abstract). <i>Journal of Southwest University</i> . (3): 22-26
210	30.43	106.43	wheat	1.35	7.20	13.20	2.32	28.70	14.30	336.00	441.00	0.00	3.15	Yu G. et al. (1999). Study of N migration and leaching loss in purple soils. (in Chinese with English abstract). <i>Journal of Southwest University</i> . (3): 22-26
211	30.43	106.43	wheat	1.35	7.20	13.20	2.32	28.70	14.30	336.00	441.00	150.00	6.31	Yu G. et al. (1999). Study of N migration and leaching loss in purple soils. (in Chinese with English abstract). <i>Journal of Southwest University</i> . (3): 22-26
212	30.43	106.43	wheat	1.35	7.20	13.20	2.32	28.70	14.30	336.00	441.00	225.00	7.71	Yu G. et al. (1999). Study of N migration and leaching loss in purple soils. (in Chinese with English abstract). <i>Journal of Southwest University</i> . (3): 22-26
213	30.43	106.43	wheat	1.35	7.20	13.20	2.32	28.70	14.30	336.00	441.00	150.00	6.26	Yu G. et al. (1999). Study of N migration and leaching loss in purple soils. (in Chinese with English abstract). <i>Journal of Southwest University</i> . (3): 22-26
214	30.43	106.43	wheat	1.35	7.20	13.20	2.32	28.70	14.30	336.00	441.00	225.00	7.46	Yu G. et al. (1999). Study of N migration and leaching loss in purple soils. (in Chinese with English abstract). <i>Journal of Southwest University</i> . (3): 22-26
215	30.43	106.43	wheat	1.35	5.20	12.00	2.32	28.70	14.30	336.00	441.00	0.00	3.70	Yu G. et al. (1999). Study of N migration and leaching loss in purple soils. (in Chinese with English abstract). <i>Journal of Southwest University</i> . (3): 22-26
216	30.43	106.43	wheat	1.35	5.20	12.00	2.32	28.70	14.30	336.00	441.00	150.00	6.78	Yu G. et al. (1999). Study of N migration and leaching loss in purple soils. (in Chinese with English abstract). <i>Journal of Southwest University</i> . (3): 22-26
217	30.43	106.43	wheat	1.35	5.20	12.00	2.32	28.70	14.30	336.00	441.00	225.00	9.25	Yu G. et al. (1999). Study of N migration and leaching loss in purple soils. (in Chinese with English abstract). <i>Journal of Southwest University</i> . (3): 22-26
218	30.43	106.43	wheat	1.35	5.20	12.00	2.32	28.70	14.30	336.00	441.00	150.00	6.72	Yu G. et al. (1999). Study of N migration and leaching loss in purple soils. (in Chinese with English abstract). <i>Journal of Southwest University</i> . (3): 22-26
219	30.43	106.43	wheat	1.35	5.20	12.00	2.32	28.70	14.30	336.00	441.00	225.00	7.98	Yu G. et al. (1999). Study of N migration and leaching loss in purple soils. (in Chinese with English abstract). <i>Journal of Southwest University</i> . (3): 22-26
220	35.20	107.67	Wheat	1.38	8.30	10.50	0.57	22.80	19.90	385.50	933.00	0.00	6.00	Chen L. (2007). Research on nitrogen recycle and its effect on environment in dry-land of loss plateau. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Xianyang, China)
221	35.20	107.67	Wheat	1.38	8.30	10.50	0.57	22.80	19.90	385.50	933.00	0.00	15.70	Chen L. (2007). Research on nitrogen recycle and its effect on environment in dry-land of loss plateau. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Xianyang, China)
222	35.20	107.67	Wheat	1.38	8.30	10.50	0.57	22.80	19.90	385.50	933.00	120.00	73.50	Chen L. (2007). Research on nitrogen recycle and its effect on environment in dry-land of loss plateau. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Xianyang, China)
223	35.20	107.67	Wheat	1.38	8.30	10.50	0.57	22.80	19.90	385.50	933.00	120.00	44.40	Chen L. (2007). Research on nitrogen recycle and its effect on environment in dry-land of loss plateau. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Xianyang, China)
224	35.20	107.67	Wheat	1.38	8.30	10.50	0.57	22.80	19.90	385.50	933.00	120.00	21.50	Chen L. (2007). Research on nitrogen recycle and its effect on environment in dry-land of loss plateau. (in Chinese with English abstract). Master dissertation of Northwest A&F University (Xianyang, China)
225	29.05	106.18	Wheat	1.39	5.10	22.70	1.61	23.29	13.90	528.00	744.00	0.00	3.92	Kuang F. (2016). Fate of N fertilizer and N balance in different cropping systems in purple soil areas of the upper reaches of Yanze river. (in Chinese with English abstract). Doctor dissertation of China Agricultural University (Beijing, China)
226	29.05	106.18	Wheat	1.39	5.10	22.70	1.61	23.29	13.90	528.00	744.00	96.00	11.08	Kuang F. (2016). Fate of N fertilizer and N balance in different cropping systems in purple soil areas of the upper reaches of Yanze river. (in Chinese with English abstract). Doctor dissertation of China Agricultural University (Beijing, China)
227	29.05	106.18	Wheat	1.39	5.10	22.70	1.61	23.29	13.90	528.00	744.00	180.00	13.11	Kuang F. (2016). Fate of N fertilizer and N balance in different cropping systems in purple soil areas of the upper reaches of Yanze river. (in Chinese with English abstract). Doctor dissertation of China Agricultural University (Beijing, China)
228	31.55	120.70	wheat	1.48	7.36	35.00	0.75	20.82	12.40	420.00	693.00	0.00	2.74	Zhang J. et al. (2008). On nutrient leaching amount of rice-wheat rotation field with monolith lysimeter in Taihu Lake area. (in Chinese with English abstract). <i>Soils</i> . 40(4): 591-595
229	31.55	120.70	wheat	1.48	7.36	35.00	0.75	20.82	12.40	420.00	693.00	150.00	12.19	Zhang J. et al. (2008). On nutrient leaching amount of rice-wheat rotation field with monolith lysimeter in Taihu Lake area. (in Chinese with English abstract). <i>Soils</i> . 40(4): 591-595
230	31.55	120.70	wheat	1.48	7.36	35.00	0.75	20.82	12.40	420.00	693.00	225.00	14.01	Zhang J. et al. (2008). On nutrient leaching amount of rice-wheat rotation field with monolith lysimeter in Taihu Lake area. (in Chinese with English abstract). <i>Soils</i> . 40(4): 591-595
231	31.55	120.70	wheat	1.48	7.36	35.00	0.75	20.82	12.40	420.00	693.00	150.00	16.42	Zhang J. et al. (2008). On nutrient leaching amount of rice-wheat rotation field with monolith lysimeter in Taihu Lake area. (in Chinese with English abstract). <i>Soils</i> . 40(4): 591-595
232	31.30	121.00	wheat	1.43	7.36	35.00	1.30	21.24	10.40	634.20	548.10	0.00	2.05	Cao Y. et al. (2014). Improving agronomic practices to reduce nitrate leaching from the rice-wheat rotation system. <i>Agriculture, Ecosystems &amp; Environment</i> . 195: 61-67
233	31.30	121.00	wheat	1.43	7.36	35.00	1.30	21.24	10.40	634.20	548.10	300.00	2.44	Cao Y. et al. (2014). Improving agronomic practices to reduce nitrate leaching from the rice-wheat rotation system. <i>Agriculture, Ecosystems &amp; Environment</i> . 195: 61-67
234	31.30	121.00	wheat	1.43	7.36	35.00	1.30	21.24	10.40	634.20	548.10	0.00	0.44	Cao Y. et al. (2014). Improving agronomic practices to reduce nitrate leaching from the rice-wheat rotation system. <i>Agriculture, Ecosystems &amp; Environment</i> . 195: 61-67
235	31.30	121.00	wheat	1.43	7.36	35.00	1.30	21.24	10.40	634.20	548.10	300.00	1.14	Cao Y. et al. (2014). Improving agronomic practices to reduce nitrate leaching from the rice-wheat rotation system. <i>Agriculture, Ecosystems &amp; Environment</i> . 195: 61-67
236	31.30	121.00	wheat	1.43	7.36	35.00	1.30	21.24	10.40	634.20	548.10	225.00	1.35	Cao Y. et al. (2014). Improving agronomic practices to reduce nitrate leaching from the rice-wheat rotation system. <i>Agriculture, Ecosystems &amp; Environment</i> . 195: 61-67
237	31.52	120.10	wheat	1.34	6.99	32.00	1.40	17.75	10.10	642.60	546.00	0.00	0.53	Yu Y. et al. (2011). Nitrogen use efficiency and loss from runoff and leaching in wheat season with rice-wheat rotation system under different nitrogen management methods in Taihu Lake region, China. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 30(12): 2475-2482
238	31.52	120.10	wheat	1.34	6.99	32.00	1.40	17.75	10.10	642.60	546.00	180.00	1.22	Yu Y. et al. (2011). Nitrogen use efficiency and loss from runoff and leaching in wheat season with rice-wheat rotation system under different nitrogen management methods in Taihu Lake region, China. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 30(12): 2475-2482
239	31.52	120.10	wheat	1.34	6.99	32.00	1.40	17.75	10.10	642.60	546.00	180.00	1.24	Yu Y. et al. (2011). Nitrogen use efficiency and loss from runoff and leaching in wheat season with rice-wheat rotation system under different nitrogen management methods in Taihu Lake region, China. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 30(12): 2475-2482
240	31.52	120.10	wheat	1.34	6.99	32.00	1.40	17.75	10.10	642.60	546.00	240.00	1.55	Yu Y. et al. (2011). Nitrogen use efficiency and loss from runoff and leaching in wheat season with rice-wheat rotation system under different nitrogen management methods in Taihu Lake region, China. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> . 30(12): 2475-2482
241	32.00	119.60	wheat	1.42	6.65	32.00	1.30	21.00	12.10	361.20	705.60	220.00	28.40	Li Y. et al. (2010). Experimental study on nitrogen leaching in a direct-seeding rice paddy of Taihu Lake basin. (in Chinese with English abstract). <i>Plant Nutrition and Fertilizer Science</i> . 16(1): 99-104
242	39.80	116.46	wheat	1.36	8.10	12.16	1.01	19.76	6.23	100.80	866.40	0.00	0.10	Huang T. et al. (2017). Nitrate leaching in a winter wheat-summer maize rotation on a calcareous soil as affected by nitrogen and straw management. <i>Scientific Reports</i> . 7: 42247
243	39.80	116.46	wheat	1.36	8.10	12.16	1.01	19.76	6.23					



379	34.07	108.03	maize	1.20	7.38	17.10	0.85	36.10	21.73	607.01	785.46	270.00	15.00	Yang X. et al. (2017). Optimising nitrogen fertilisation: a key to improving nitrogen-use efficiency and minimising nitrate leaching losses in an intensive wheat/maize rotation (2008-2014). <i>Field Crops Research</i> , 206: 1-10
380	34.07	108.03	maize	1.20	7.38	17.10	0.85	36.10	22.62	396.18	671.26	0.00	1.83	Yang X. et al. (2017). Optimising nitrogen fertilisation: a key to improving nitrogen-use efficiency and minimising nitrate leaching losses in an intensive wheat/maize rotation (2008-2014). <i>Field Crops Research</i> , 206: 1-10
381	34.07	108.03	maize	1.20	7.38	17.10	0.85	36.10	22.62	396.18	671.26	280.00	11.92	Yang X. et al. (2017). Optimising nitrogen fertilisation: a key to improving nitrogen-use efficiency and minimising nitrate leaching losses in an intensive wheat/maize rotation (2008-2014). <i>Field Crops Research</i> , 206: 1-10
382	34.07	108.03	maize	1.20	7.38	17.10	0.85	36.10	22.62	396.18	671.26	180.00	7.92	Yang X. et al. (2017). Optimising nitrogen fertilisation: a key to improving nitrogen-use efficiency and minimising nitrate leaching losses in an intensive wheat/maize rotation (2008-2014). <i>Field Crops Research</i> , 206: 1-10
383	34.07	108.03	maize	1.20	7.38	17.10	0.85	36.10	22.62	396.18	671.26	90.00	3.42	Yang X. et al. (2017). Optimising nitrogen fertilisation: a key to improving nitrogen-use efficiency and minimising nitrate leaching losses in an intensive wheat/maize rotation (2008-2014). <i>Field Crops Research</i> , 206: 1-10
384	34.07	108.03	maize	1.20	7.38	17.10	0.85	36.10	22.62	396.18	671.26	270.00	7.83	Yang X. et al. (2017). Optimising nitrogen fertilisation: a key to improving nitrogen-use efficiency and minimising nitrate leaching losses in an intensive wheat/maize rotation (2008-2014). <i>Field Crops Research</i> , 206: 1-10
385	34.07	108.03	maize	1.20	7.38	17.10	0.85	36.10	23.70	369.50	785.46	0.00	0.92	Yang X. et al. (2017). Optimising nitrogen fertilisation: a key to improving nitrogen-use efficiency and minimising nitrate leaching losses in an intensive wheat/maize rotation (2008-2014). <i>Field Crops Research</i> , 206: 1-10
386	34.07	108.03	maize	1.20	7.38	17.10	0.85	36.10	23.70	369.50	785.46	17.67	17.67	Yang X. et al. (2017). Optimising nitrogen fertilisation: a key to improving nitrogen-use efficiency and minimising nitrate leaching losses in an intensive wheat/maize rotation (2008-2014). <i>Field Crops Research</i> , 206: 1-10
387	34.07	108.03	maize	1.20	7.38	17.10	0.85	36.10	23.70	369.50	785.46	180.00	10.42	Yang X. et al. (2017). Optimising nitrogen fertilisation: a key to improving nitrogen-use efficiency and minimising nitrate leaching losses in an intensive wheat/maize rotation (2008-2014). <i>Field Crops Research</i> , 206: 1-10
388	34.07	108.03	maize	1.20	7.38	17.10	0.85	36.10	23.70	369.50	785.46	90.00	2.00	Yang X. et al. (2017). Optimising nitrogen fertilisation: a key to improving nitrogen-use efficiency and minimising nitrate leaching losses in an intensive wheat/maize rotation (2008-2014). <i>Field Crops Research</i> , 206: 1-10
389	34.07	108.03	maize	1.20	7.38	17.10	0.85	36.10	23.70	369.50	785.46	270.00	18.58	Yang X. et al. (2017). Optimising nitrogen fertilisation: a key to improving nitrogen-use efficiency and minimising nitrate leaching losses in an intensive wheat/maize rotation (2008-2014). <i>Field Crops Research</i> , 206: 1-10
390	28.32	113.82	maize	1.36	5.75	14.57	1.02	36.00	25.00	740.00	426.00	0.00	9.25	Xie Y. et al. (2017). Effects of CRN-application on nitrogen dynamics and loss of leachate water in spring maize soil in hills area of South China. (in Chinese with English abstract). <i>Journal of Soil and Water Conservation</i> , 31(4): 211-218
391	28.32	113.82	maize	1.36	5.75	14.57	1.02	36.00	25.00	740.00	426.00	240.00	63.38	Xie Y. et al. (2017). Effects of CRN-application on nitrogen dynamics and loss of leachate water in spring maize soil in hills area of South China. (in Chinese with English abstract). <i>Journal of Soil and Water Conservation</i> , 31(4): 211-218
392	26.87	107.10	maize	1.47	7.30	40.00	1.63	37.20	22.00	753.00	539.00	0.00	1.47	Jiang Y. (2018). Effects of nitrogen cycle character on corn and tobacco crop rotation system in Guizhou yellow soil. (in Chinese with English abstract). Doctor dissertation of Heilongjiang Bayi Agricultural University (Daqing, China)
393	26.87	107.10	maize	1.47	7.30	40.00	1.63	37.20	22.00	753.00	539.00	120.00	3.18	Jiang Y. (2018). Effects of nitrogen cycle character on corn and tobacco crop rotation system in Guizhou yellow soil. (in Chinese with English abstract). Doctor dissertation of Heilongjiang Bayi Agricultural University (Daqing, China)
394	26.87	107.10	maize	1.47	7.30	40.00	1.63	37.20	22.00	753.00	539.00	120.00	1.78	Jiang Y. (2018). Effects of nitrogen cycle character on corn and tobacco crop rotation system in Guizhou yellow soil. (in Chinese with English abstract). Doctor dissertation of Heilongjiang Bayi Agricultural University (Daqing, China)
395	36.15	117.15	maize	1.43	7.70	17.70	0.86	48.00	25.00	272.00	742.00	0.00	1.97	Jiu X. (2018). Effects of mixed organic and inorganic N fertilizer on soil fertility and nitrogen balance of summer maize. (in Chinese with English abstract). Master dissertation of Shandong Agricultural University (Tai'an, China)
396	36.15	117.15	maize	1.43	7.70	17.70	0.86	48.00	25.00	272.00	742.00	200.00	22.10	Jiu X. (2018). Effects of mixed organic and inorganic N fertilizer on soil fertility and nitrogen balance of summer maize. (in Chinese with English abstract). Master dissertation of Shandong Agricultural University (Tai'an, China)
397	31.27	100.47	maize	1.32	8.30	10.95	0.55	30.13	22.77	484.21	435.01	0.00	3.13	Zhou M. et al. (2014). N2O and CH4 emissions, and N2O3-leaching on a crop-yield basis from a subtropical rain-fed wheat-maize rotation in response to different types of nitrogen fertilizer. <i>Ecosystems</i> , 17(2): 286-301
398	31.27	100.47	maize	1.32	8.30	10.95	0.55	30.13	22.77	484.21	435.01	150.00	62.14	Zhou M. et al. (2014). N2O and CH4 emissions, and N2O3-leaching on a crop-yield basis from a subtropical rain-fed wheat-maize rotation in response to different types of nitrogen fertilizer. <i>Ecosystems</i> , 17(2): 286-301
399	31.27	105.47	maize	1.33	8.30	8.75	0.62	30.13	23.92	277.79	723.85	0.00	11.00	Zhu B. et al. (2009). Measurements of nitrate leaching from a hillslope cropland in the Central Sichuan Basin, China. <i>Soil Science Society of America Journal</i> , 73(4): 1419-1426
400	31.27	105.47	maize	1.33	8.30	8.75	0.62	30.13	23.92	277.79	723.85	150.00	20.00	Zhu B. et al. (2009). Measurements of nitrate leaching from a hillslope cropland in the Central Sichuan Basin, China. <i>Soil Science Society of America Journal</i> , 73(4): 1419-1426
401	31.27	105.47	maize	1.33	8.30	8.75	0.62	30.13	23.92	277.79	723.85	0.00	21.00	Zhu B. et al. (2009). Measurements of nitrate leaching from a hillslope cropland in the Central Sichuan Basin, China. <i>Soil Science Society of America Journal</i> , 73(4): 1419-1426
402	31.27	105.47	maize	1.33	8.30	8.75	0.62	30.13	23.92	277.79	723.85	150.00	39.00	Zhu B. et al. (2009). Measurements of nitrate leaching from a hillslope cropland in the Central Sichuan Basin, China. <i>Soil Science Society of America Journal</i> , 73(4): 1419-1426
403	31.27	105.45	maize	1.45	8.83	8.75	0.62	30.13	23.92	277.79	723.85	0.00	1.03	Wang T. et al. (2009). Effects of fertilization on nitrogen leaching from hillslope cropland of purple soil. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> , 28(4): 716-722
404	31.27	105.45	maize	1.45	8.83	8.75	0.62	30.13	23.92	277.79	723.85	150.00	44.31	Wang T. et al. (2009). Effects of fertilization on nitrogen leaching from hillslope cropland of purple soil. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> , 28(4): 716-722
405	31.27	105.45	maize	1.45	8.83	8.75	0.62	30.13	23.92	277.79	723.85	150.00	23.21	Wang T. et al. (2009). Effects of fertilization on nitrogen leaching from hillslope cropland of purple soil. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> , 28(4): 716-722
406	31.27	105.45	maize	1.45	8.83	8.75	0.62	30.13	23.92	277.79	723.85	150.00	20.28	Wang T. et al. (2009). Effects of fertilization on nitrogen leaching from hillslope cropland of purple soil. (in Chinese with English abstract). <i>Journal of Agro-Environment Science</i> , 28(4): 716-722
407	34.28	108.00	maize	1.20	7.38	17.06	0.85	25.00	23.16	330.98	803.61	0.00	0.11	Yin X. et al. (2010). Nitrate leaching characteristics of wheat-corn rotation farmland in Guanzhong area of Shaanxi. <i>Chinese Journal of Applied Ecology</i> , 21(3): 640-646
408	34.28	108.00	maize	1.20	7.38	17.06	0.85	25.00	23.16	330.98	803.61	280.00	0.14	Yin X. et al. (2010). Nitrate leaching characteristics of wheat-corn rotation farmland in Guanzhong area of Shaanxi. <i>Chinese Journal of Applied Ecology</i> , 21(3): 640-646
409	34.28	108.00	maize	1.20	7.38	17.06	0.85	25.00	23.16	330.98	803.61	180.00	0.36	Yin X. et al. (2010). Nitrate leaching characteristics of wheat-corn rotation farmland in Guanzhong area of Shaanxi. <i>Chinese Journal of Applied Ecology</i> , 21(3): 640-646
410	34.28	108.00	maize	1.20	7.38	17.06	0.85	25.00	23.16	330.98	803.61	90.00	0.24	Yin X. et al. (2010). Nitrate leaching characteristics of wheat-corn rotation farmland in Guanzhong area of Shaanxi. <i>Chinese Journal of Applied Ecology</i> , 21(3): 640-646
411	34.28	108.00	maize	1.20	7.38	17.06	0.85	25.00	23.16	330.98	803.61	270.00	0.50	Yin X. et al. (2010). Nitrate leaching characteristics of wheat-corn rotation farmland in Guanzhong area of Shaanxi. <i>Chinese Journal of Applied Ecology</i> , 21(3): 640-646
412	34.77	117.03	maize	1.15	8.30	15.30	0.85	33.30	26.13	570.79	707.62	0.00	0.21	Tan D. et al. (2013). An in situ study of inorganic nitrogen flow under different fertilization treatments on a wheat-maize rotation system surrounding Nansi Lake, China. <i>Agricultural Water Management</i> , 123: 45-54
413	34.77	117.03	maize	1.15	8.30	15.30	0.85	33.30	26.13	570.79	707.62	345.00	0.83	Tan D. et al. (2013). An in situ study of inorganic nitrogen flow under different fertilization treatments on a wheat-maize rotation system surrounding Nansi Lake, China. <i>Agricultural Water Management</i> , 123: 45-54
414	34.77	117.03	maize	1.15	8.30	15.30	0.85	33.30	26.13	570.79	707.62	0.00	0.28	Tan D. et al. (2013). An in situ study of inorganic nitrogen flow under different fertilization treatments on a wheat-maize rotation system surrounding Nansi Lake, China. <i>Agricultural Water Management</i> , 123: 45-54
415	34.77	117.03	maize	1.15	8.30	15.30	0.85	33.30	26.13	570.79	707.62	180.00	0.67	Tan D. et al. (2013). An in situ study of inorganic nitrogen flow under different fertilization treatments on a wheat-maize rotation system surrounding Nansi Lake, China. <i>Agricultural Water Management</i> , 123: 45-54
416	39.80	116.47	maize	1.36	8.10	12.24	0.80	19.76	23.60	561.60	792.00	0.00	1.40	Huang T. et al. (2017). Nitrate leaching in a winter wheat-summer maize rotation on a calcareous soil as affected by nitrogen and straw management. <i>Scientific Reports</i> , 7: 42247
417	39.80	116.47	maize	1.36	8.10	12.24	0.80	19.76	23.60	561.60	792.00	21.00	2.70	Huang T. et al. (2017). Nitrate leaching in a winter wheat-summer maize rotation on a calcareous soil as affected by nitrogen and straw management. <i>Scientific Reports</i> , 7: 42247
418	39.80	116.47	maize	1.36	8.10	12.24	0.80	19.76	23.60	561.60	792.00	260.00	41.40	Huang T. et al. (2017). Nitrate leaching in a winter wheat-summer maize rotation on a calcareous soil as affected by nitrogen and straw management. <i>Scientific Reports</i> , 7: 42247
419	39.80	116.47	maize	1.36	8.10	12.24	0.80	19.76	23.60	561.60	792.00	660.00	0.30	Huang T. et al. (2017). Nitrate leaching in a winter wheat-summer maize rotation on a calcareous soil as affected by nitrogen and straw management. <i>Scientific Reports</i> , 7: 42247
420	39.80	116.47	maize	1.36	8.10	12.24	0.80	19.76	23.60	561.60	792.00	130.00	10.60	Huang T. et al. (2017). Nitrate leaching in a winter wheat-summer maize rotation on a calcareous soil as affected by nitrogen and straw management. <i>Scientific Reports</i> , 7: 42247
421	39.80	116.47	maize	1.36	8.10	12.24	0.80	19.76	23.60	561.60	792.00	260.00	33.90	Huang T. et al. (2017). Nitrate leaching in a winter wheat-summer maize rotation on a calcareous soil as affected by nitrogen and straw management. <i>Scientific Reports</i> , 7: 42247
422	39.80	116.47	maize	1.36	8.10	12.24	0.80	19.76	23.60	561.60	792.00	0.00	0.80	Huang T. et al. (2017). Nitrate leaching in a winter wheat-summer maize rotation on a calcareous soil as affected by nitrogen and straw management. <i>Scientific Reports</i> , 7: 42247
423	39.80	116.47	maize	1.36	8.10	12.24	0.80	19.76	23.60	561.60	792.00	130.00	10.90	Huang T. et al. (2017). Nitrate leaching in a winter wheat-summer maize rotation on a calcareous soil as affected by nitrogen and straw management. <i>Scientific Reports</i> , 7: 42247
424	39.80	116.47	maize	1.36	8.10	12.24	0.80	19.76	23.60	561.60	792.00	260.00	18.30	Huang T. et al. (2017). Nitrate leaching in a winter wheat-summer maize rotation on a calcareous soil as affected by nitrogen and straw management. <i>Scientific Reports</i> , 7: 42247
425	38.50	106.30	fruit	1.38	8.27	30.10	1.96	22.64	15.90	53.10	396.90	0.00	27.84	Zhao Y. et al. (2011). Effect of fertilization on nitrogen leaching loss from soil and nutrients utilization by tomato and cucumber in greenhouse. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizers</i> , 17(2): 374-383
426	38.50	106.30	fruit	1.38	8.27	30.10	1.96	22.64	15.90	53.10	396.90	900.00	75.27	Zhao Y. et al. (2011). Effect of fertilization on nitrogen leaching loss from soil and nutrients utilization by tomato and cucumber in greenhouse. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizers</i> , 17(2): 374-383
427	38.50	106.30	fruit	1.38	8.27	30.10	1.96	22.64	15.90	53.10	396.90	750.00	58.31	Zhao Y. et al. (2011). Effect of fertilization on nitrogen leaching loss from soil and nutrients utilization by tomato and cucumber in greenhouse. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizers</i> , 17(2): 374-383
428	38.50	106.30	fruit	1.38	8.27	30.10	1.96	22.64	15.90	53.10	396.90	900.00	66.89	Zhao Y. et al. (2011). Effect of fertilization on nitrogen leaching loss from soil and nutrients utilization by tomato and cucumber in greenhouse. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizers</i> , 17(2): 374-383
429	38.50	106.30	fruit	1.38	8.27	30.10	1.96	22.64	15.90	53.10	396.90	550.00	55.03	Zhao Y. et al. (2011). Effect of fertilization on nitrogen leaching loss from soil and nutrients utilization by tomato and cucumber in greenhouse. (in Chinese with English abstract). <i>Journal of Plant Nutrition and Fertilizers</i> , 17(2): 374-383
430	36.90	118.80	fruit	1.37	6.70	19.31	0.80	23.86	13.90	20.90	55.22	0.00	15.00	Song X.Z., Zhao C.X., Wang X.L., Li J., 2009. Study of nitrate leaching and nitrogen fate under intensive vegetable production pattern in northern China. <i>Comptes Rendus Biologies</i> , 322: 385-392
431	36.90	118.80	fruit	1.37	6.70	19.31	0.80	23.86	13.90	20.90	55.22	325.00	169.00	Song X.Z., Zhao C.X., Wang X.L., Li J., 2009. Study of nitrate leaching and nitrogen fate under intensive vegetable production pattern in northern China. <i>Comptes Rendus Biologies</i> , 322: 385-392
432	36.90	118.80	fruit	1.37	6.70	19.31	0.80	23.86	13.90	20.90	55.22	493.00	261.00	Song X.Z., Zhao C.X., Wang X.L., Li J., 2009. Study of nitrate leaching and nitrogen fate under intensive vegetable production pattern in northern China. <i>Comptes Rendus Biologies</i> , 322: 385-392
433	36.90	118.80	fruit	1.37	6.70	19.31	0.80	23.86	13.90	20.90	55.22	207.00	152.00	Song X.Z., Zhao C.X., Wang X.L., Li J., 2009. Study of nitrate leaching and nitrogen fate under intensive vegetable production pattern in northern China. <i>Comptes Rendus Biologies</i> , 322: 385-





667	39.50	116.20	vegetable	1.46	7.70	23.20	1.47	15.70	22.90	264.00	312.00	0.00	13.76	Tang Z. (2009). Studies on agronomic and environmental effects by different water and fertilizer managements in organic vegetable farming. (in Chinese with English abstract). Doctor dissertation of Chinese Academy of Agricultural Sciences (Beijing, China)
668	39.50	116.20	vegetable	1.46	7.70	23.20	1.47	15.70	22.90	264.00	312.00	260.00	15.30	Tang Z. (2009). Studies on agronomic and environmental effects by different water and fertilizer managements in organic vegetable farming. (in Chinese with English abstract). Doctor dissertation of Chinese Academy of Agricultural Sciences (Beijing, China)
669	39.50	116.20	vegetable	1.46	7.70	23.20	1.47	15.70	22.90	264.00	312.00	521.00	20.46	Tang Z. (2009). Studies on agronomic and environmental effects by different water and fertilizer managements in organic vegetable farming. (in Chinese with English abstract). Doctor dissertation of Chinese Academy of Agricultural Sciences (Beijing, China)
670	31.20	119.90	vegetable	1.60	5.58	42.93	1.04	15.30	23.70	562.80	673.20	0.00	8.00	Min J. et al. (2011). Nitrogen balance and loss in a greenhouse vegetable system in southeastern China. <i>Pedosphere</i> , 21(4): 464-472
671	31.20	119.90	vegetable	1.60	5.58	42.93	1.04	15.30	23.70	562.80	673.20	120.00	9.00	Min J. et al. (2011). Nitrogen balance and loss in a greenhouse vegetable system in southeastern China. <i>Pedosphere</i> , 21(4): 464-472
672	31.20	119.90	vegetable	1.60	5.58	42.93	1.04	15.30	23.70	562.80	673.20	180.00	10.00	Min J. et al. (2011). Nitrogen balance and loss in a greenhouse vegetable system in southeastern China. <i>Pedosphere</i> , 21(4): 464-472
673	31.20	119.90	vegetable	1.60	5.58	42.93	1.04	15.30	23.70	562.80	673.20	240.00	11.00	Min J. et al. (2011). Nitrogen balance and loss in a greenhouse vegetable system in southeastern China. <i>Pedosphere</i> , 21(4): 464-472
674	31.20	119.90	vegetable	1.60	5.58	42.93	1.04	15.30	23.70	562.80	673.20	300.00	13.00	Min J. et al. (2011). Nitrogen balance and loss in a greenhouse vegetable system in southeastern China. <i>Pedosphere</i> , 21(4): 464-472
675	30.30	114.20	vegetable	1.60	5.58	42.93	1.04	15.30	19.30	238.50	287.10	0.00	79.00	Wang Y. (2014). Nitrogen leaching and nitrous oxide emission in vegetable fields. (in Chinese with English abstract). Master dissertation of Huazhong Agricultural University. (Wuhan, China)
676	30.30	114.20	vegetable	1.60	5.58	42.93	1.04	15.30	19.30	238.50	287.10	108.00	123.00	Wang Y. (2014). Nitrogen leaching and nitrous oxide emission in vegetable fields. (in Chinese with English abstract). Master dissertation of Huazhong Agricultural University. (Wuhan, China)
677	30.30	114.20	vegetable	1.60	5.58	42.93	1.04	15.30	19.30	238.50	287.10	162.00	160.00	Wang Y. (2014). Nitrogen leaching and nitrous oxide emission in vegetable fields. (in Chinese with English abstract). Master dissertation of Huazhong Agricultural University. (Wuhan, China)
678	30.30	114.20	vegetable	1.60	5.58	42.93	1.04	15.30	19.30	238.50	287.10	216.00	179.00	Wang Y. (2014). Nitrogen leaching and nitrous oxide emission in vegetable fields. (in Chinese with English abstract). Master dissertation of Huazhong Agricultural University. (Wuhan, China)
679	30.30	114.20	vegetable	1.60	5.58	42.93	1.04	15.30	19.30	238.50	287.10	270.00	210.00	Wang Y. (2014). Nitrogen leaching and nitrous oxide emission in vegetable fields. (in Chinese with English abstract). Master dissertation of Huazhong Agricultural University. (Wuhan, China)
680	37.03	118.85	vegetable	1.26	6.61	17.40	3.00	19.32	17.20	132.00	937.20	0.00	21.000	Zhu J. et al. (2005). Environmental implications of low nitrogen use efficiency in excessively fertilized hot pepper ( <i>Capsicum frutescens</i> L.) cropping systems. <i>Agriculture Ecosystems &amp; Environment</i> , 111(1-4): 70-80
681	37.03	118.85	vegetable	1.26	6.61	17.40	3.00	19.32	17.20	132.00	937.20	600.00	231.00	Zhu J. et al. (2005). Environmental implications of low nitrogen use efficiency in excessively fertilized hot pepper ( <i>Capsicum frutescens</i> L.) cropping systems. <i>Agriculture Ecosystems &amp; Environment</i> , 111(1-4): 70-80
682	37.03	118.85	vegetable	1.26	6.61	17.40	3.00	19.32	17.20	132.00	937.20	1200.00	353.00	Zhu J. et al. (2005). Environmental implications of low nitrogen use efficiency in excessively fertilized hot pepper ( <i>Capsicum frutescens</i> L.) cropping systems. <i>Agriculture Ecosystems &amp; Environment</i> , 111(1-4): 70-80
683	37.03	118.85	vegetable	1.26	6.61	17.40	3.00	19.32	17.20	132.00	937.20	1800.00	554.00	Zhu J. et al. (2005). Environmental implications of low nitrogen use efficiency in excessively fertilized hot pepper ( <i>Capsicum frutescens</i> L.) cropping systems. <i>Agriculture Ecosystems &amp; Environment</i> , 111(1-4): 70-80
684	30.60	119.80	vegetable	1.35	5.69	16.50	0.90	33.38	19.10	342.00	333.00	0.00	0.26	Xu J. et al. (2013). Effects of different fertilization modes on nitrogen use efficiency of cabbages and nitrogen loss from vegetable field. (in Chinese with English abstract). <i>Journal of Zhejiang University</i> , 39(5): 556-564
685	30.60	119.80	vegetable	1.35	5.69	16.50	0.90	33.38	19.10	342.00	333.00	256.00	0.81	Xu J. et al. (2013). Effects of different fertilization modes on nitrogen use efficiency of cabbages and nitrogen loss from vegetable field. (in Chinese with English abstract). <i>Journal of Zhejiang University</i> , 39(5): 556-564
686	30.60	119.80	vegetable	1.35	5.69	16.50	0.90	33.38	19.10	342.00	333.00	512.00	2.26	Xu J. et al. (2013). Effects of different fertilization modes on nitrogen use efficiency of cabbages and nitrogen loss from vegetable field. (in Chinese with English abstract). <i>Journal of Zhejiang University</i> , 39(5): 556-564
687	30.60	119.80	vegetable	1.35	5.69	16.50	0.90	33.38	19.10	342.00	333.00	768.00	4.85	Xu J. et al. (2013). Effects of different fertilization modes on nitrogen use efficiency of cabbages and nitrogen loss from vegetable field. (in Chinese with English abstract). <i>Journal of Zhejiang University</i> , 39(5): 556-564
688	30.60	119.80	vegetable	1.35	5.69	16.50	0.90	33.38	19.10	342.00	333.00	1024.00	6.80	Xu J. et al. (2013). Effects of different fertilization modes on nitrogen use efficiency of cabbages and nitrogen loss from vegetable field. (in Chinese with English abstract). <i>Journal of Zhejiang University</i> , 39(5): 556-564
689	30.60	119.80	vegetable	1.35	5.69	16.50	0.90	33.38	19.10	342.00	333.00	1280.00	9.04	Xu J. et al. (2013). Effects of different fertilization modes on nitrogen use efficiency of cabbages and nitrogen loss from vegetable field. (in Chinese with English abstract). <i>Journal of Zhejiang University</i> , 39(5): 556-564
690	30.00	119.50	vegetable	1.35	5.40	30.40	2.05	33.19	6.40	270.00	450.00	0.00	3.20	Tian L. (2012). Effects of fertilization patterns of vegetable fields on nitrogen and phosphorus loss in Taihu Lake basin. (in Chinese with English abstract). Master dissertation of Nanjing Normal University (Nanjing, China)
691	30.00	119.50	vegetable	1.35	5.40	30.40	2.05	33.19	6.40	270.00	450.00	56.25	13.00	Tian L. (2012). Effects of fertilization patterns of vegetable fields on nitrogen and phosphorus loss in Taihu Lake basin. (in Chinese with English abstract). Master dissertation of Nanjing Normal University (Nanjing, China)
692	30.00	119.50	vegetable	1.35	5.40	30.40	2.05	33.19	6.40	270.00	450.00	112.50	19.60	Tian L. (2012). Effects of fertilization patterns of vegetable fields on nitrogen and phosphorus loss in Taihu Lake basin. (in Chinese with English abstract). Master dissertation of Nanjing Normal University (Nanjing, China)
693	30.00	119.50	vegetable	1.35	5.40	30.40	2.05	33.19	6.40	270.00	450.00	225.00	36.60	Tian L. (2012). Effects of fertilization patterns of vegetable fields on nitrogen and phosphorus loss in Taihu Lake basin. (in Chinese with English abstract). Master dissertation of Nanjing Normal University (Nanjing, China)
694	30.00	119.50	vegetable	1.35	5.40	30.40	2.05	33.19	6.40	270.00	450.00	337.50	54.90	Tian L. (2012). Effects of fertilization patterns of vegetable fields on nitrogen and phosphorus loss in Taihu Lake basin. (in Chinese with English abstract). Master dissertation of Nanjing Normal University (Nanjing, China)
695	30.39	120.00	vegetable	1.35	5.70	28.25	2.01	33.38	19.10	342.00	333.00	0.00	0.85	Yu D. et al. (2012). Effects of fertilization modes on loss of nitrogen and phosphorus in seepage waters and cucumber quality. (in Chinese with English abstract). <i>Journal of Anhui Agricultural Sciences</i> , 40(2): 822-824
696	30.39	120.00	vegetable	1.35	5.70	28.25	2.01	33.38	19.10	342.00	333.00	267.37	18.49	Yu D. et al. (2012). Effects of fertilization modes on loss of nitrogen and phosphorus in seepage waters and cucumber quality. (in Chinese with English abstract). <i>Journal of Anhui Agricultural Sciences</i> , 40(2): 822-824
697	30.39	120.00	vegetable	1.35	5.70	28.25	2.01	33.38	19.10	342.00	333.00	534.74	36.98	Yu D. et al. (2012). Effects of fertilization modes on loss of nitrogen and phosphorus in seepage waters and cucumber quality. (in Chinese with English abstract). <i>Journal of Anhui Agricultural Sciences</i> , 40(2): 822-824
698	30.39	120.00	vegetable	1.35	5.70	28.25	2.01	33.38	19.10	342.00	333.00	802.11	54.97	Yu D. et al. (2012). Effects of fertilization modes on loss of nitrogen and phosphorus in seepage waters and cucumber quality. (in Chinese with English abstract). <i>Journal of Anhui Agricultural Sciences</i> , 40(2): 822-824
699	30.39	120.00	vegetable	1.35	5.70	28.25	2.01	33.38	19.10	342.00	333.00	1069.48	74.96	Yu D. et al. (2012). Effects of fertilization modes on loss of nitrogen and phosphorus in seepage waters and cucumber quality. (in Chinese with English abstract). <i>Journal of Anhui Agricultural Sciences</i> , 40(2): 822-824
700	29.79	121.36	vegetable	1.40	5.62	27.99	3.91	28.40	22.70	840.00	945.00	0.00	14.03	Tang Q. et al. (2019). Ecosystem services of partial organic substitution for chemical fertilizer in a peri-urban zone in China. <i>Journal of Cleaner Production</i> , 224: 779-788
701	29.79	121.36	vegetable	1.40	5.62	27.99	3.91	28.40	22.70	840.00	945.00	915.00	99.80	Tang Q. et al. (2019). Ecosystem services of partial organic substitution for chemical fertilizer in a peri-urban zone in China. <i>Journal of Cleaner Production</i> , 224: 779-788
702	29.79	121.36	vegetable	1.40	5.62	27.99	3.91	28.40	22.70	840.00	945.00	1830.00	199.60	Tang Q. et al. (2019). Ecosystem services of partial organic substitution for chemical fertilizer in a peri-urban zone in China. <i>Journal of Cleaner Production</i> , 224: 779-788
703	29.79	121.36	vegetable	1.40	5.62	27.99	3.91	28.40	22.70	840.00	945.00	2745.00	299.40	Tang Q. et al. (2019). Ecosystem services of partial organic substitution for chemical fertilizer in a peri-urban zone in China. <i>Journal of Cleaner Production</i> , 224: 779-788
704	29.79	121.36	vegetable	1.40	5.62	27.99	3.91	28.40	22.70	840.00	945.00	3660.00	399.20	Tang Q. et al. (2019). Ecosystem services of partial organic substitution for chemical fertilizer in a peri-urban zone in China. <i>Journal of Cleaner Production</i> , 224: 779-788
705	29.79	121.36	vegetable	1.40	5.62	27.99	3.91	28.40	22.70	840.00	945.00	4575.00	499.00	Tang Q. et al. (2019). Ecosystem services of partial organic substitution for chemical fertilizer in a peri-urban zone in China. <i>Journal of Cleaner Production</i> , 224: 779-788
706	29.79	121.36	vegetable	1.40	5.62	27.99	3.91	28.40	22.70	840.00	945.00	5490.00	598.80	Tang Q. et al. (2019). Ecosystem services of partial organic substitution for chemical fertilizer in a peri-urban zone in China. <i>Journal of Cleaner Production</i> , 224: 779-788
707	38.71	115.75	vegetable	1.37	8.40	16.47	1.50	9.30	22.07	441.60	842.70	0.00	64.00	Wang D. et al. (2019). Effects of nitrogen fertilizer and water management practices on nitrogen leaching from a typical open field used for vegetable planting in northern China. <i>Agricultural Water Management</i> , 213: 913-921
708	38.71	115.75	vegetable	1.37	8.40	16.47	1.50	9.30	22.07	441.60	842.70	329.00	96.60	Wang D. et al. (2019). Effects of nitrogen fertilizer and water management practices on nitrogen leaching from a typical open field used for vegetable planting in northern China. <i>Agricultural Water Management</i> , 213: 913-921
709	38.71	115.75	vegetable	1.37	8.40	16.47	1.50	9.30	22.07	441.60	842.70	658.00	193.20	Wang D. et al. (2019). Effects of nitrogen fertilizer and water management practices on nitrogen leaching from a typical open field used for vegetable planting in northern China. <i>Agricultural Water Management</i> , 213: 913-921
710	38.71	115.75	vegetable	1.37	8.40	16.47	1.50	9.30	22.07	441.60	842.70	987.00	289.80	Wang D. et al. (2019). Effects of nitrogen fertilizer and water management practices on nitrogen leaching from a typical open field used for vegetable planting in northern China. <i>Agricultural Water Management</i> , 213: 913-921
711	38.71	115.75	vegetable	1.37	8.40	16.47	1.50	9.30	22.07	441.60	842.70	1316.00	399.60	Wang D. et al. (2019). Effects of nitrogen fertilizer and water management practices on nitrogen leaching from a typical open field used for vegetable planting in northern China. <i>Agricultural Water Management</i> , 213: 913-921
712	38.71	115.75	vegetable	1.37	8.40	16.47	1.50	9.30	22.07	441.60	842.70	1645.00	519.40	Wang D. et al. (2019). Effects of nitrogen fertilizer and water management practices on nitrogen leaching from a typical open field used for vegetable planting in northern China. <i>Agricultural Water Management</i> , 213: 913-921
713	38.71	115.75	vegetable	1.37	8.40	16.47	1.50	9.30	22.07	441.60	842.70	1974.00	619.20	Wang D. et al. (2019). Effects of nitrogen fertilizer and water management practices on nitrogen leaching from a typical open field used for vegetable planting in northern China. <i>Agricultural Water Management</i> , 213: 913-921
714	38.71	115.75	vegetable	1.37	8.40	16.47	1.50	9.30	22.07	441.60	842.70	2303.00	739.00	Wang D. et al. (2019). Effects of nitrogen fertilizer and water management practices on nitrogen leaching from a typical open field used for vegetable planting in northern China. <i>Agricultural Water Management</i> , 213: 913-921
715	38.71	115.75	vegetable	1.37	8.40	16.47	1.50	9.30	22.07	441.60	842.70	2632.00	838.80	Wang D. et al. (2019). Effects of nitrogen fertilizer and water management practices on nitrogen leaching from a typical open field used for vegetable planting in northern China. <i>Agricultural Water Management</i> , 213: 913-921