

**Table S1. Effect of Fertilizer and Irrigation management on Greenhouse Soil NO<sub>3</sub>-N Concentration and N<sub>2</sub>O Emissions. The final dataset consisted of 427 sets of observations from 49 papers published from 2004 to 2021, including 35 papers that take both nitrogen fertilizer and irrigation management, and 14 papers that only take nitrogen fertilizer management.**

Year	Experimental location			Vegetable type	Treatment	N management (kg N/hm <sup>2</sup> )		Irrigation(mm)	Basic soil factor					Mean soil temperature(°C)	Mean water filled pore space(%)	Soil NO <sub>3</sub> -N (mg/kg)	N <sub>2</sub> O-N(kg/hm <sup>2</sup> )	References
	Site	longitude	latitude			Total N input	Chemical N		Bulk weight(g/cm <sup>3</sup> )	pH	Organic C(g/kg)	Total N(g/kg)	Available nitrogen (mg/kg)					
2004	Nanjing, Jiangsu	118.867	32.017	Cilantro	CK	0	0	50	1.20	5.10	8.29	1.70	144.00	12.92	52.24	74.76	1.13	[1]
2004	Nanjing, Jiangsu			Cilantro	M1N1	250	125	50	1.20	5.10	8.29	1.70	144.00	12.92	52.24	103.51	1.40	
2004	Nanjing, Jiangsu			Cilantro	M2N1	250	83	50	1.20	5.10	8.29	1.70	144.00	12.92	52.24	111.18	1.36	

20 04	Nanji ng, Jiangs u			Cilantro	NPK	25 0	250	50	1.20	5. 1 0	8.29	1.7 0	144.00	12.92	52.2 4	94.8 9	1.35	
20 04	Nanji ng, Jiangs u			Water spinach	CK	0	0	230	1.20	5. 1 0	8.29	1.7 0	144.00	24.98	49.0 7	85.3 0	5.77	
20 04	Nanji ng, Jiangs u			Water spinach	M1N1	50 0	250	230	1.20	5. 1 0	8.29	1.7 0	144.00	24.98	49.0 7	155. 27	8.05	
20 04	Nanji ng, Jiangs u			Water spinach	M2N1	50 0	167	230	1.20	5. 1 0	8.29	1.7 0	144.00	24.98	49.0 7	162. 94	15.09	
20 04	Nanji ng, Jiangs u			Water spinach	NPK	50 0	500	230	1.20	5. 1 0	8.29	1.7 0	144.00	24.98	49.0 7	234. 82	15.38	
20 04	Nanji ng, Jiangs u			vegeta ble shoots	CK	0	0	100	1.20	5. 1 0	8.29	1.7 0	144.00	21.72	55.2 5	79.5 5	3.03	
20 04	Nanji ng,			vegeta ble	M1N1	25 0	125	100	1.20	5. 1	8.29	1.7 0	144.00	21.72	55.2 5	103. 51	4.51	

	Jiangsu			shoots					0								
2004	Nanjing, Jiangsu			vegetable shoots	M2N1	250	83	100	1.20	5.10	8.29	1.70	144.00	21.72	55.25	147.60	4.73
2004	Nanjing, Jiangsu			vegetable shoots	NPK	250	250	100	1.20	5.10	8.29	1.70	144.00	21.72	55.25	66.13	6.06
2004	Nanjing, Jiangsu			Spinach	CK	0	0	80	1.20	5.10	8.29	1.70	144.00	14.93	53.90	50.80	1.56
2004	Nanjing, Jiangsu			Spinach	M1N1	250	125	80	1.20	5.10	8.29	1.70	144.00	14.93	53.90	59.42	3.01
2004	Nanjing, Jiangsu			Spinach	M2N1	250	83	80	1.20	5.10	8.29	1.70	144.00	14.93	53.90	83.39	2.57
2004	Nanjing, Jiangsu			Spinach	NPK	250	250	80	1.20	5.10	8.29	1.70	144.00	14.93	53.90	62.30	3.61

20 07	Yixin g, Jiangsu	119. 883	31.2 33	Cucum ber	N0	20	0	135	1.28	5. 8 9	14.4 4	1.0 4	144.00	20.45	56.2 6	12.8 4	1.39	[2]
20 07	Yixin g, Jiangsu			Cucum ber	N1	12 8	108	135	1.28	5. 8 9	14.4 4	1.0 4	144.00	20.45	56.2 6	79.2 0	1.90	
20 07	Yixin g, Jiangsu			Cucum ber	N2	18 2	162	135	1.28	5. 8 9	14.4 4	1.0 4	144.00	20.45	56.2 6	135. 93	2.34	
20 07	Yixin g, Jiangsu			Cucum ber	N3	23 6	216	135	1.28	5. 8 9	14.4 4	1.0 4	144.00	20.45	56.2 6	244. 04	2.82	
20 07	Yixin g, Jiangsu			Cucum ber	N4	29 0	270	135	1.32	5. 8 9	14.4 4	1.0 4	144.00	20.45	56.2 6	293. 27	3.00	
20 09	Xinji, Hebei	115. 228	37.9 99	Cucum ber	N0	0	0	519	1.35	7. 6 0	8.93	1.5 5	63.50	24.06	56.2 6	21.0 0	0.47	[3]
20 09	Xinji, Hebei			Cucum ber	N1	60 0	600	519	1.35	7. 6 0	8.93	1.5 5	63.50	24.06	56.2 6	290. 50	2.30	

20 09	Xinji, Hebei			Cucum ber	N2	90 0	900	519	1.35	7. 6 0	8.93	1.5 5	63.50	24.06	56.2 6	325. 50	3.01	
20 09	Xinji, Hebei			Cucum ber	N3	12 00	1200	519	1.35	7. 6 0	8.93	1.5 5	63.50	24.06	56.2 6	357. 00	5.01	
20 09	Xinji, Hebei			Tomato	N0	0	0	207	1.35	7. 6 0	8.93	1.5 5	63.50	19.16	56.2 6	14.0 0	0.51	
20 09	Xinji, Hebei			Tomato	N1	45 0	450	207	1.35	7. 6 0	8.93	1.5 5	63.50	19.16	56.2 6	267. 75	1.74	
20 09	Xinji, Hebei			Tomato	N2	67 5	675	207	1.35	7. 6 0	8.93	1.5 5	63.50	19.16	56.2 6	309. 75	2.90	
20 09	Xinji, Hebei			Tomato	N3	90 0	900	207	1.35	7. 6 0	8.93	1.5 5	63.50	19.16	56.2 6	334. 25	4.91	
20 09	Xinji, Hebei	115. 500	38.5 00	Tomato	W1N0	0	0	21	1.35	7. 6 0	8.93	1.5 5	144.00	18.97	42.9 5	17.6 0	0.56	[4]
20 09	Xinji, Hebei			Tomato	W1N675	67 5	675	21	1.35	7. 6 0	8.93	1.5 5	144.00	18.97	43.3 0	207. 40	3.62	
20 09	Xinji, Hebei			Tomato	W1N900	90 0	900	21	1.35	7. 6	8.93	1.5 5	144.00	18.97	43.3 5	237. 30	5.30	

										0								
20 09	Xinji, Hebei			Tomato	W2N0	0	0	15	1.35	7. 6 0	8.93	1.5 5	144.00	18.97	42.2 0	33.2 0	0.51	
20 09	Xinji, Hebei			Tomato	W2N675	67 5	675	15	1.35	7. 6 0	8.93	1.5 5	144.00	18.97	41.7 5	385. 80	2.90	
20 09	Xinji, Hebei			Tomato	W2N900	90 0	900	15	1.35	7. 6 0	8.93	1.5 5	144.00	18.97	42.8 5	451. 50	4.91	
20 09	Xiqin g, Tianji ng	116. 984	39.1 12	Celery	N0	0	0	333	1.38	7. 9 0	14.4 4	1.6 6	191.70	20.45	49.6 0	45.8 0	0.31	[5]
20 09	Xiqin g, Tianji ng			Celery	4/4CN+0/4 PN	45 0	450	333	1.38	7. 9 0	14.4 4	1.6 6	191.70	20.45	49.8 0	25.9 8	1.10	
20 09	Xiqin g, Tianji ng			Celery	3/4CN+1/4 PN	45 0	338	333	1.38	7. 9 0	14.4 4	1.6 6	191.70	20.45	49.6 0	29.9 4	1.14	
20 09	Xiqin g, Tianji ng			Celery	2/4CN+2/4 PN	45 0	225	333	1.38	7. 9 0	14.4 4	1.6 6	191.70	20.45	49.6 0	15.1 9	1.25	

20 09	Xiqin g, Tianji ng			Celery	2/4CN+2/4 SN	45 0	225	333	1.38	7. 9 0	14.4 4	1.6 6	191.70	20.45	48.0 0	54.8 3	0.71	
20 09	Xiqin g, Tianji ng			Celery	CF	95 6	450	417	1.38	7. 9 0	14.4 4	1.6 6	191.70	20.45	54.8 0	51.9 6	3.11	
20 10	Cangz hou, Hebei	116. 200	38.3 00	Cucum ber	W1N0	36 0	0	62	1.45	7. 4 7	14.4 3	0.8 2	106.75	20.45	56.2 6	6.41	0.57	[6]
20 10	Cangz hou, Hebei			Cucum ber	W1N1	12 32	872	62	1.45	7. 4 7	14.4 3	0.8 2	106.75	20.45	56.2 6	398. 72	7.51	
20 10	Cangz hou, Hebei			Cucum ber	W2N2+DC D	83 0	470	41	1.45	7. 4 7	14.4 3	0.8 2	106.75	20.45	56.2 6	169. 23	2.25	
20 10	Cangz hou, Hebei			Cucum ber	W2N3+DC D	92 4	564	41	1.45	7. 4 7	14.4 3	0.8 2	106.75	20.45	56.2 6	210. 26	2.75	
20 10	Cangz hou, Hebei			Cucum ber	W2N4+DC D	73 6	376	41	1.45	7. 4 7	14.4 3	0.8 2	106.75	20.45	56.2 6	116. 67	1.85	
20 10	Xiqin g, Tianji			Tomato	N0	0	0	389	1.38	7. 9 0	14.4 4	1.6 6	191.70	20.45	51.8 0	34.5 7	0.55	

	ng																	
20 10	Xiqin g, Tianji ng			Tomato	4/4CN+0/4 PN	45 0	450	389	1.38	7. 9 0	14.4 4	1.6 6	191.70	20.45	51.6 0	48.4 0	1.50	
20 10	Xiqin g, Tianji ng			Tomato	3/4CN+1/4 PN	45 0	338	389	1.38	7. 9 0	14.4 4	1.6 6	191.70	20.45	51.6 0	46.6 2	2.32	
20 10	Xiqin g, Tianji ng			Tomato	2/4CN+2/4 PN	45 0	225	389	1.38	7. 9 0	14.4 4	1.6 6	191.70	20.45	51.2 0	43.9 4	6.20	
20 10	Xiqin g, Tianji ng			Tomato	2/4CN+2/4 SN	45 0	225	389	1.38	7. 9 0	14.4 4	1.6 6	191.70	20.45	50.0 0	51.3 0	1.60	
20 10	Xiqin g, Tianji ng			Tomato	CF	90 0	450	486	1.38	7. 9 0	14.4 4	1.6 6	191.70	20.45	54.6 0	63.5 7	19.55	
20 10	Cangz hou, Hebei	116. 127	38.1 93	Tomato	Control+T M1	27 0	0	454	1.38	7. 7 7	13.0 0	1.0 5	321.03	23.90	56.2 6	23.9 3	2.67	[7]
20 10	Cangz hou,			Tomato	TN+TM1	68 0	410	454	1.38	7. 7	13.0 0	1.0 5	321.03	23.90	56.2 6	164. 22	7.65	



	Hebei									7								
2010	Cangzhou, Hebei			Tomato	RN+DCD+OM1	480	210	319	1.38	7.77	13.00	1.05	321.03	23.90	56.26	123.32	3.46	
2010	Cangzhou, Hebei			Tomato	80%RN+DCD+OM1	438	168	319	1.38	7.77	13.00	1.05	321.03	23.90	56.26	78.62	2.86	
2010	Cangzhou, Hebei			Tomato	120%RN+DCD+OM1	522	252	319	1.38	7.77	13.00	1.05	321.03	23.90	56.26	110.04	3.34	
2010	Yixing, Jiangsu	119.883	31.433	tomato	C	0	0		1.28	5.58	14.44	1.04	144.00	23.15	36.04	26.10	0.40	[8]
2010	Yixing, Jiangsu			tomato	F1	135	90		1.28	5.58	14.44	1.04	144.00	23.40	37.19	537.06	1.12	
2010	Yixing, Jiangsu			tomato	F2	225	150		1.28	5.58	14.44	1.04	144.00	23.64	38.74	682.28	2.29	
2011	Shunyi, Beijing	116.723	40.155	Tomato	CK	0	0		1.31	7.92	9.83	1.31	144.00	20.45	56.26	8.10	2.45	[9]

20 11	Shunyi, Beijing			Tomato	OM	300	0		1.31	7.92	9.83	1.31	144.00	20.45	56.26	8.72	3.20	
20 11	Shunyi, Beijing			Tomato	N1	300	300		1.31	7.92	9.83	1.31	144.00	20.45	56.26	96.54	2.54	
20 11	Shunyi, Beijing			Tomato	N2	450	450		1.31	7.92	9.83	1.31	144.00	20.45	56.26	79.10	2.77	
20 11	Shunyi, Beijing			Tomato	N3	600	600		1.31	7.92	9.83	1.31	144.00	20.45	56.26	135.78	2.82	
20 11	Shunyi, Beijing			Tomato	N4	600	600		1.31	7.92	9.83	1.31	144.00	20.45	56.26	168.17	5.55	
20 11	Shunyi, Beijing	116.723	40.355	Tomato	CK	0	0	180	1.31	7.92	9.83	1.31	144.00	20.45	56.26	6.69	2.47	[10]
20 11	Shunyi, Beijing			Tomato	OM	134	0	180	1.31	7.9	9.83	1.31	144.00	20.45	56.26	6.62	2.65	

	Beijing									2								
2011	Shunyi, Beijing			Tomato	N1	434	300	180	1.31	7.92	9.83	1.31	144.00	20.45	56.26	48.70	2.83	
2011	Shunyi, Beijing			Tomato	N2	584	450	180	1.31	7.92	9.83	1.31	144.00	20.45	56.26	64.94	2.95	
2011	Shunyi, Beijing			Tomato	N3	734	600	180	1.31	7.92	9.83	1.31	144.00	20.45	56.26	90.58	3.31	
2011	Shunyi, Beijing			Tomato	N4	734	600	180	1.31	7.92	9.83	1.31	144.00	20.45	56.26	97.40	5.30	
2012	Langfang, Hebei	116.083	39.533	Cucumber	CK	0	0	76	1.33	8.12	7.24	1.03	149.96	16.50	56.26	17.80	0.12	[11]
2012	Langfang, Hebei			Cucumber	T	989	989	53	1.33	8.12	7.24	1.03	149.96	16.50	56.26	86.39	2.39	
2012	Langfang,			Cucumber	RI	709	709	53	1.33	8.1	7.24	1.03	149.96	16.50	56.26	65.97	0.39	

	Hebei								2								
2012	Langfang, Hebei			Cucumber	R1+DCD	709	709	53	1.33	8.12	7.24	1.03	149.96	16.50	56.26	58.12	0.23
2012	Langfang, Hebei			Cucumber	R2	747	747	53	1.33	8.12	7.24	1.03	149.96	16.50	56.26	74.35	0.50
2012	Langfang, Hebei			Cucumber	R2+DCD	747	747	53	1.33	8.12	7.24	1.03	149.96	16.50	56.26	62.30	0.18
2012	Yongqing, Hebei	116.450	39.317	Tomato	传统施肥	141	137		1.30	7.47	12.67	1.77	144.00	20.45	56.26	425.82	0.63 [12]
2012	Yongqing, Hebei			Tomato	DCD5%	141	137		1.30	7.47	12.67	1.77	144.00	20.45	56.26	265.58	0.45
2012	Yongqing, Hebei			Tomato	DCD10%	141	137		1.30	7.47	12.67	1.77	144.00	20.45	56.26	255.19	0.33
2012	Yongqing, Hebei			Tomato	DCD15%	141	137		1.30	7.47	12.67	1.77	144.00	20.45	56.26	186.94	0.17
2012	Yongqing, Hebei			Tomato	DCD20%	141	137		1.30	7.47	12.67	1.77	144.00	20.45	56.26	158.75	0.16
20	Yongqing			Tomato	优化施肥	10	96		1.30	7.	12.6	1.7	144.00	20.45	56.2	83.0	0.11

12	qing, Hebei					0				4 7	7	7			6	9		
20 12	Fangs han, Beijin g	115. 933	39.4 00	Tomato	CK	0	0	172	1.40	8. 0 0	19.7 2	1.9 0	168.10	19.30	60.6 0	16.1 9	0.85	[13]
20 12	Fangs han, Beijin g			Tomato	FP	15 50	750	172	1.40	8. 0 0	19.7 2	1.9 0	168.10	19.30	60.6 0	208. 65	12.53	
20 12	Fangs han, Beijin g			Tomato	OPT	11 00	300	172	1.40	8. 0 0	19.7 2	1.9 0	168.10	19.30	60.6 0	74.0 9	7.74	
20 12	Fangs han, Beijin g			Tomato	OPT+DCD	11 00	300	172	1.40	8. 0 0	19.7 2	1.9 0	168.10	19.30	60.6 0	54.6 4	4.57	
20 12	Fangs han, Beijin g			Chines e cabbag e	CK	0	0	195	1.40	8. 0 0	19.7 2	1.9 0	168.10	24.80	64.9 0	21.9 0	0.36	
20 12	Fangs han, Beijin g			Chines e cabbag e	FP	12 0	120	195	1.40	8. 0 0	19.7 2	1.9 0	168.10	24.80	64.9 0	148. 91	2.09	

2012	Fangshan, Beijing			Chinese cabbage	OPT	48	48	195	1.40	8.00	19.72	1.90	168.10	24.80	64.90	126.90	1.13	
2012	Fangshan, Beijing			Chinese cabbage	OPT+DCD	48	48	195	1.40	8.00	19.72	1.90	168.10	24.80	64.90	97.28	0.94	
2012	Fangshan, Beijing			Lettuce	CK	0	0	75	1.40	8.00	19.72	1.90	168.10	9.80	69.30	13.33	0.31	
2012	Fangshan, Beijing			Lettuce	FP	800	400	75	1.40	8.00	19.72	1.90	168.10	9.80	69.30	150.11	5.43	
2012	Fangshan, Beijing			Lettuce	OPT	625	225	75	1.40	8.00	19.72	1.90	168.10	9.80	69.30	42.71	3.50	
2012	Fangshan, Beijing			Lettuce	OPT+DCD	625	225	75	1.40	8.00	19.72	1.90	168.10	9.80	69.30	94.20	2.17	
2012	Hexian,	118.617	31.117	Lettuce	SF	0	0		1.30	5.3	12.50	1.50	10.17	7.81	53.53	85.19	0.11	[14]

	Anhui								8									
2012	Hexian, Anhui			Lettuce	MT	281	281		1.29	5.69	13.20	2.30	168.02	11.60	49.04	311.63	0.62	
2012	Hexian, Anhui			Lettuce	OT	495	134		1.26	5.57	18.90	3.10	82.35	12.47	50.47	222.59	0.83	
2012	Hexian, Anhui			Tomato	SF	81	81		1.30	5.29	12.50	1.50	54.47	23.05	38.06	44.63	0.73	
2012	Hexian, Anhui			Tomato	MT	440	440		1.30	5.03	12.20	2.10	240.85	23.60	49.12	352.37	2.69	
2012	Hexian, Anhui			Tomato	OT	401	283		1.26	6.01	18.40	3.00	86.00	24.30	45.12	195.57	3.44	
2012	Hexian, Anhui			Pepper	SF	0	0		1.29	5.27	12.80	1.50	46.17	20.34	42.60	25.51	0.54	
2012	Hexian, Anhui			Pepper	MT	160	160		1.31	4.76	10.10	2.00	160.80	22.03	45.68	397.11	0.57	
2012	Hexian, Anhui			Pepper	OT	191	19		1.29	5.49	13.00	2.30	217.10	21.55	45.23	344.86	0.73	

20 12	Daxin , Beijin g	116. 217	39.4 33	Celery	HN0	0	0	366	1.10	7. 5 6	16.0 7	1.7 4	144.00	20.45	42.7 0	2.55	0.22	[15]
20 12	Daxin , Beijin g			Celery	HN	45 0	0	366	1.10	7. 5 6	16.0 7	1.7 4	144.00	20.45	48.3 0	8.73	10.47	
20 12	Daxin , Beijin g			Celery	HN3	30 0	0	366	1.10	7. 5 6	16.0 7	1.7 4	144.00	20.45	45.9 0	6.91	4.86	
20 12	Daxin , Beijin g			Celery	LN0	0	0	293	1.10	7. 5 6	16.0 7	1.7 4	144.00	20.45	42.6 0	5.45	0.19	
20 12	Daxin , Beijin g			Celery	LN	45 0	0	293	1.10	7. 5 6	16.0 7	1.7 4	144.00	20.45	43.3 0	46.1 8	8.14	
20 12	Daxin , Beijin g			Celery	LN3	30 0	0	293	1.10	7. 5 6	16.0 7	1.7 4	144.00	20.45	44.2 0	14.1 8	2.21	



20 12	Cangz hou, Hebei	116. 123	38.1 90	tomato e	Control+T MI	27 0	0	503	1.36	7. 8 4	13.8 2	1.1 2	144.00	23.90	56.2 6	33.5 5	2.67	[16]
20 12	Cangz hou, Hebei			tomato e	TN+TMI	68 0	410	503	1.36	7. 8 4	13.8 2	1.1 2	144.00	23.90	56.2 6	125. 54	7.65	
20 12	Cangz hou, Hebei			tomato e	RN+DCD+ OMI	48 0	210	364	1.36	7. 8 4	13.8 2	1.1 2	144.00	23.90	56.2 6	98.4 8	3.46	
20 12	Cangz hou, Hebei			tomato e	80%RN+D CD+OMI	43 8	168	364	1.36	7. 8 4	13.8 2	1.1 2	144.00	23.90	56.2 6	70.3 5	2.86	
20 12	Cangz hou, Hebei			tomato e	120%RN+ DCD+OMI	52 2	252	364	1.36	7. 8 4	13.8 2	1.1 2	144.00	23.90	56.2 6	63.3 1	3.34	
20 13	Fangs han, Beijin g			Tomato	CK	0	0	137	1.40	8. 0 0	19.7 2	1.9 0	168.10	18.90	62.0 0	22.8 6	0.83	
20 13	Fangs han, Beijin g			Tomato	FP	15 50	750	137	1.40	8. 0 0	19.7 2	1.9 0	168.10	18.90	62.0 0	130. 55	14.13	
20 13	Fangs han, Beijin			Tomato	OPT	11 00	300	137	1.40	8. 0 0	19.7 2	1.9 0	168.10	18.90	62.0 0	70.1 9	5.46	

	g																	
20 13	Fangshan, Beijing			Tomato	OPT+DCD	11 00	300	137	1.40	8. 0 0	19.7 2	1.9 0	168.10	18.90	62.0 0	94.4 0	4.68	
20 13	Fangshan, Beijing			Cabbage	CK	0	0	183	1.40	8. 0 0	19.7 2	1.9 0	168.10	17.60	60.1 0	20.0 0	0.59	
20 13	Fangshan, Beijing			Cabbage	FP	80 0	400	183	1.40	8. 0 0	19.7 2	1.9 0	168.10	17.60	60.1 0	78.3 4	4.28	
20 13	Fangshan, Beijing			Cabbage	OPT	62 5	225	183	1.40	8. 0 0	19.7 2	1.9 0	168.10	17.60	60.1 0	77.8 7	3.82	
20 13	Fangshan, Beijing			Cabbage	OPT+DCD	62 5	225	183	1.40	8. 0 0	19.7 2	1.9 0	168.10	17.60	60.1 0	72.1 1	2.55	
20 14	Fangshan, Beijing	115. 933	39.6 00	Tomato	CK	0	0	141	1.21	7. 6 0	23.6 5	2.3 0	306.75	20.44	55.0 3	16.8 5	0.86	[17]
20	Fangshan			Tomato	FP	15	750	141	1.21	7.	23.6	2.3	306.75	20.44	55.0	390.	12.32	

14	han, Beijin g					50				6 0	5	0			3	81		
20 14	Fangs han, Beijin g			Tomato	OPT	11 00	300	141	1.21	7. 6 0	23.6 5	2.3 0	306.75	20.44	55.0 3	120. 08	5.45	
20 14	Fangs han, Beijin g			Tomato	OPTS	11 00	300	141	1.21	7. 6 0	23.6 5	2.3 0	306.75	20.44	55.0 3	220. 06	5.23	
20 14	Fangs han, Beijin g			Tomato	OPTD	11 00	300	141	1.21	7. 6 0	23.6 5	2.3 0	306.75	20.44	55.0 3	300. 20	4.01	
20 14	Fangs han, Beijin g			Cabbag e	CK	0	0	161	1.21	7. 6 0	23.6 5	2.3 0	306.75	15.60	58.7 9	24.0 2	0.58	
20 14	Fangs han, Beijin g			Cabbag e	FP	80 0	400	161	1.21	7. 6 0	23.6 5	2.3 0	306.75	15.60	58.7 9	328. 58	6.39	
20 14	Fangs han, Beijin			Cabbag e	OPT	56 0	160	161	1.21	7. 6 0	23.6 5	2.3 0	306.75	15.60	58.7 9	141. 01	4.61	

	g																	
20 14	Fangshan, Beijing			Cabbage	OPTS	560	160	161	1.21	7.60	23.65	2.30	306.75	15.60	58.79	80.66	4.17	
20 14	Fangshan, Beijing			Cabbage	OPTD	560	160	161	1.21	7.60	23.65	2.30	306.75	15.60	58.79	105.21	3.13	
20 14	Shengyang, Liaoning	123.565	41.823	Tomato	D30	1600	315	66	1.20	5.80	6.33	1.35	55.26	25.84	58.08	58.33	2.39	[18]
20 14	Shengyang, Liaoning			Tomato	S30	1600	315	81	1.30	5.80	6.33	1.35	55.26	24.62	47.14	53.47	1.00	
20 14	Shengyang, Liaoning			Tomato	G30	1600	315	127	1.30	5.80	6.33	1.35	55.26	23.29	64.72	63.89	2.53	
20 15	Shengyang, Liaoning	123.550	41.817	Tomato	D30	493	334	62	1.33	5.80	7.30	1.47	61.26	24.37	38.87	70.35	0.90	[19]
20	Sheng			Tomato	S30	49	334	65	1.33	5.	7.30	1.4	61.26	24.90	42.3	38.8	0.92	

15	yang, Liaon ing					3				8 0		7			6	3		
20 15	Sheng yang, Liaon ing			Tomato	G30	49 3	334	123	1.33	5. 8 0	7.30	1.4 7	61.26	24.41	47.8 7	95.3 2	1.97	
20 15	Fangs han, Beijin g	116. 017	39.6 33	Cucum ber	CK	0	0	399	1.21	7. 5 7	22.6 2	2.0 0	145.56	18.95	67.8 2	6.29	1.14	[20]
20 15	Fangs han, Beijin g			Cucum ber	FP	12 00	700	399	1.21	7. 5 7	22.6 2	2.0 0	145.56	19.19	70.1 8	181. 71	2.98	
20 15	Fangs han, Beijin g			Cucum ber	FPD	12 00	700	319	1.21	7. 5 7	22.6 2	2.0 0	145.56	18.50	68.0 9	180. 00	2.10	
20 15	Fangs han, Beijin g			Cucum ber	OPTD	92 0	420	319	1.21	7. 5 7	22.6 2	2.0 0	145.56	18.80	66.6 0	89.1 4	2.01	
20 15	Fangs han, Beijin			Celery	CK	0	0	470	1.21	7. 5 7	22.6 2	2.0 0	145.56	14.14	69.6 1	25.1 4	0.49	

	g																	
20 15	Fangs han, Beijin g			Celery	FP	72 0	220	470	1.21	7. 5 7	22.6 2	2.0 0	145.56	15.65	69.6 7	176. 00	1.67	
20 15	Fangs han, Beijin g			Celery	FPD	72 0	220	370	1.21	7. 5 7	22.6 2	2.0 0	145.56	14.60	68.7 4	220. 57	1.10	
20 15	Fangs han, Beijin g			Celery	OPTD	63 2	132	370	1.21	7. 5 7	22.6 2	2.0 0	145.56	15.11	67.7 4	120. 57	0.81	
20 15	Linan , Zhejia ng	119. 815	30.1 88	Water spinach	CK	25 0	150		1.23	4. 2 3	23.2 0	1.6 6	90.00	20.45	56.2 6	196. 00	0.42	[21]
20 15	Linan , Zhejia ng			Water spinach	10-10-BB	25 0	150		1.23	4. 2 3	23.2 0	1.6 6	90.00	20.45	56.2 6	205. 00	0.35	
20 15	Linan , Zhejia ng			Water spinach	20-0-BB	25 0	150		1.23	4. 2 3	23.2 0	1.6 6	90.00	20.45	56.2 6	175. 00	0.30	
20	Linan			Water	10-10-DPB	25	150		1.23	4.	23.2	1.6	90.00	20.45	56.2	198.	0.39	

15	, Zhejia ng			spinach		0				2 3	0	6			6	00		
20 15	Linan , Zhejia ng			Water spinach	20-0-DPB	25 0	150		1.23	4. 2 3	23.2 0	1.6 6	90.00	20.45	56.2 6	189. 00	0.37	
20 15	Linan , Zhejia ng			Water spinach	CK	13 5	75		1.23	4. 2 3	23.2 0	1.6 6	90.00	20.45	56.2 6	203. 00	0.03	
20 15	Linan , Zhejia ng			Water spinach	10-10-BB	13 5	75		1.23	4. 2 3	23.2 0	1.6 6	90.00	20.45	56.2 6	223. 00	0.03	
20 15	Linan , Zhejia ng			Water spinach	20-0-BB	13 5	75		1.23	4. 2 3	23.2 0	1.6 6	90.00	20.45	56.2 6	184. 00	0.02	
20 15	Linan , Zhejia ng			Water spinach	10-10-DPB	13 5	75		1.23	4. 2 3	23.2 0	1.6 6	90.00	20.45	56.2 6	129. 00	0.03	
20 15	Linan , Zhejia			Water spinach	20-0-DPB	13 5	75		1.23	4. 2 3	23.2 0	1.6 6	90.00	20.45	56.2 6	197. 00	0.04	

	ng																	
20 15	Yangling, Shanxi	108.067	34.333	tomato	AI1	575	516	180	1.35	7.65	5.52	1.86	144.00	23.53	47.70	79.37	0.29	[22]
20 15	Yangling, Shanxi			tomato	CK1	575	516	180	1.35	7.65	5.52	1.86	144.00	23.75	49.77	78.52	0.31	
20 15	Yangling, Shanxi			tomato	AI2	575	516	300	1.35	7.65	5.52	1.86	144.00	23.15	48.23	79.37	0.52	
20 15	Yangling, Shanxi			tomato	CK2	575	516	300	1.35	7.65	5.52	1.86	144.00	23.94	50.66	78.52	0.53	
20 15	Yangling, Shanxi			tomato	AI1	363	328	116	1.35	7.65	5.52	1.86	144.00	18.00	55.74	78.52	0.41	
20 15	Yangling, Shanxi			tomato	CK1	363	328	116	1.35	7.65	5.52	1.86	144.00	17.64	55.36	69.99	0.27	
20	Yangling			tomato	AI2	36	328	195	1.35	7.	5.52	1.8	144.00	17.52	61.3	78.5	0.62	



15	ing, Shanxi					3				6 5		6			8	2		
20 15	Yangling, Shanxi			tomato	CK2	36 3	328	195	1.35	7. 6 5	5.52	1.8 6	144.00	17.10	58.1 0	76.8 1	0.49	
20 15	Shengyang, Liaoning	123. 565	41.6 23	tomato	D20	40 9	309	87	1.33	5. 8 0	7.30	1.4 7	61.26	24.85	47.4 0	94.3 9	1.41	[23]
20 15	Shengyang, Liaoning			tomato	D30	40 9	309	62	1.33	5. 8 0	7.30	1.4 7	61.26	24.32	38.8 8	70.9 2	0.90	
20 15	Shengyang, Liaoning			tomato	D40	40 9	309	41	1.33	5. 8 0	7.30	1.4 7	61.26	26.51	35.9 5	104. 86	1.37	
20 16	Langfang, Hebei	116. 083	39.3 33	Eggplant	CK	55 8	558	615	1.28	7. 9 9	14.9 9	1.6 6	134.48	20.45	56.2 6	93.0 3	4.25	[24]
20 16	Langfang, Hebei			Eggplant	T0	0	0	615	1.28	7. 9 9	14.9 9	1.6 6	134.48	20.45	56.2 6	19.1 0	0.15	
20	Langfang			Eggplant	T1	44	446	431	1.28	7.	14.9	1.6	134.48	20.45	56.2	112.	3.19	

16	ang, Hebei			nt		6				9 9	9	6			6	18		
20 16	Langf ang, Hebei			Eggpla nt	T2	41 8	418	431	1.28	7. 9 9	14.9 9	1.6 6	134.48	20.45	56.2 6	88.7 6	3.09	
20 16	Langf ang, Hebei			Eggpla nt	T3	39 0	390	431	1.28	7. 9 9	14.9 9	1.6 6	134.48	20.45	56.2 6	87.8 6	3.04	
20 16	Langf ang, Hebei			Eggpla nt	T4	44 6	446	431	1.28	7. 9 9	14.9 9	1.6 6	134.48	20.45	56.2 6	83.7 7	2.84	
20 16	Nanji ng, Jiangs u	118. 900	32.0 17	Water spinach	CK	0	0		1.30	7. 9 0	18.8 0	2.3 0	144.00	10.94	57.5 4	19.5 5	0.23	[25]
20 16	Nanji ng, Jiangs u			Water spinach	CF	0	0		1.30	7. 9 0	18.8 0	2.3 0	144.00	10.94	57.5 4	27.0 7	0.25	
20 16	Nanji ng, Jiangs u			Water spinach	CA	0	0		1.30	7. 9 0	18.8 0	2.3 0	144.00	10.94	57.5 4	7.52	0.32	
20 16	Nanji ng, Jiangs			Water spinach	N	24 0	240		1.30	7. 9 0	18.8 0	2.3 0	144.00	10.94	57.5 4	250. 60	2.05	

	u																	
2016	Nanjing, Jiangsu			Water spinach	NCF	240	240		1.30	7.90	18.80	2.30	144.00	10.94	57.54	104.47	2.84	
2016	Nanjing, Jiangsu			Water spinach	NCA	240	240		1.30	7.90	18.80	2.30	144.00	10.94	57.54	180.40	1.31	
2016	Fangshan, Beijing			Cucumber	CK	0	0	418	1.21	7.57	22.62	2.00	145.56	22.29	68.25	28.00	0.73	
2016	Fangshan, Beijing			Cucumber	FP	1200	700	418	1.21	7.57	22.62	2.00	145.56	22.58	71.57	202.86	2.87	
2016	Fangshan, Beijing			Cucumber	FPD	1200	700	335	1.21	7.57	22.62	2.00	145.56	21.67	67.88	226.29	1.86	
2016	Fangshan, Beijing			Cucumber	OPTD	920	420	335	1.21	7.57	22.62	2.00	145.56	21.87	67.28	184.00	1.22	

20 16	Baodi ng, Hebei	115. 802	39.2 62	Sweet pepper	CK	72 6	569		1.29	8. 0 5	13.6 9	1.3 3	182.60	20.45	56.2 6	123. 82	0.76	[26]
20 16	Baodi ng, Hebei			Sweet pepper	T0	15 7	0		1.29	8. 0 5	13.6 9	1.3 3	182.60	20.45	56.2 6	29.0 8	0.19	
20 16	Baodi ng, Hebei			Sweet pepper	T1	60 0	442		1.29	8. 0 5	13.6 9	1.3 3	182.60	20.45	56.2 6	119. 51	0.52	
20 16	Baodi ng, Hebei			Sweet pepper	T1+NP	60 0	442		1.29	8. 0 5	13.6 9	1.3 3	182.60	20.45	56.2 6	108. 75	0.37	
20 16	Yangl ing, Shanx i	108. 033	34.2 83	Celery	I1 N0	0	0	64	1.35	7. 8 2	9.56	0.9 6	144.00	16.56	64.2 4	3.80	1.31	[27]
20 16	Yangl ing, Shanx i			Celery	I1 N150	15 0	150	64	1.35	7. 8 2	9.56	0.9 6	144.00	17.56	64.2 4	7.17	2.29	
20 16	Yangl ing, Shanx i			Celery	I1 N200	20 0	200	64	1.35	7. 8 2	9.56	0.9 6	144.00	17.35	63.3 3	8.23	3.99	
20 16	Yangl ing,			Celery	I1 N250	25 0	250	64	1.35	7. 8	9.56	0.9 6	144.00	17.21	61.8 4	9.92	7.06	

	Shanxi								2								
2016	Yangling, Shanxi			Celery	I2 N0	0	0	48	1.35	7.82	9.56	0.96	144.00	15.89	60.21	4.93	0.42
2016	Yangling, Shanxi			Celery	I2 N150	150	150	48	1.35	7.82	9.56	0.96	144.00	16.25	59.91	8.88	1.74
2016	Yangling, Shanxi			Celery	I2 N200	200	200	48	1.35	7.82	9.56	0.96	144.00	16.40	61.16	10.66	3.28
2016	Yangling, Shanxi			Celery	I2 N250	250	250	48	1.35	7.82	9.56	0.96	144.00	16.16	61.34	12.83	6.05
2017	Nanjing, Jiangsu			Water spinach	CK	0	0		1.30	7.90	18.80	2.30	144.00	21.96	61.99	34.59	2.05
2017	Nanjing, Jiangsu			Water spinach	CF	0	0		1.30	7.90	18.80	2.30	144.00	21.96	61.99	24.06	2.02

20 17	Nanji ng, Jiangsu			Water spinach	CA	0	0		1.30	7. 9 0	18.8 0	2.3 0	144.00	21.96	61.9 9	22.5 6	1.53	
20 17	Nanji ng, Jiangsu			Water spinach	N	48 0	480		1.30	7. 9 0	18.8 0	2.3 0	144.00	21.96	61.9 9	288. 95	11.54	
20 17	Nanji ng, Jiangsu			Water spinach	NCF	48 0	480		1.30	7. 9 0	18.8 0	2.3 0	144.00	21.96	61.9 9	346. 26	6.03	
20 17	Nanji ng, Jiangsu			Water spinach	NCA	48 0	480		1.30	7. 9 0	18.8 0	2.3 0	144.00	21.96	61.9 9	324. 77	9.50	
20 17	Nanji ng, Jiangsu			Three- colored amaran th	CK	0	0		1.30	7. 9 0	18.8 0	2.3 0	144.00	26.39	54.4 6	95.4 9	2.28	
20 17	Nanji ng, Jiangsu			Three- colored amaran th	CF	0	0		1.30	7. 9 0	18.8 0	2.3 0	144.00	26.39	54.4 6	60.9 0	2.14	
20 17	Nanji ng,			Three- colored	CA	0	0		1.30	7. 9	18.8 0	2.3 0	144.00	26.39	54.4 6	145. 11	2.28	

	Jiangsu			amaranth					0								
2017	Nanjing, Jiangsu			Three-colored amaranth	N	240	240		1.30	7.90	18.80	2.30	144.00	26.39	54.46	191.39	10.81
2017	Nanjing, Jiangsu			Three-colored amaranth	NCF	240	240		1.30	7.90	18.80	2.30	144.00	26.39	54.46	207.15	7.49
2017	Nanjing, Jiangsu			Three-colored amaranth	NCA	240	240		1.30	7.90	18.80	2.30	144.00	26.39	54.46	182.79	3.79
2017	Nanjing, Jiangsu			Spinach	CK	0	0		1.30	7.90	18.80	2.30	144.00	16.99	41.84	34.59	0.16
2017	Nanjing, Jiangsu			Spinach	CF	0	0		1.30	7.90	18.80	2.30	144.00	16.99	41.84	66.17	0.15
2017	Nanjing, Jiangsu			Spinach	CA	0	0		1.30	7.90	18.80	2.30	144.00	16.99	41.84	75.19	0.37

20 17	Nanji ng, Jiangs u			Spinac h	N	24 0	240		1.30	7. 9 0	18.8 0	2.3 0	144.00	16.99	41.8 4	108. 15	2.53	
20 17	Nanji ng, Jiangs u			Spinac h	NCF	24 0	240		1.30	7. 9 0	18.8 0	2.3 0	144.00	16.99	41.8 4	92.3 9	0.34	
20 17	Nanji ng, Jiangs u			Spinac h	NCA	24 0	240		1.30	7. 9 0	18.8 0	2.3 0	144.00	16.99	41.8 4	66.6 0	1.29	
20 17	Nanji ng, Jiangs u			Cilandr o	CK	0	0		1.30	7. 9 0	18.8 0	2.3 0	144.00	10.91	71.8 0	33.0 8	0.40	
20 17	Nanji ng, Jiangs u			Cilandr o	CF	0	0		1.30	7. 9 0	18.8 0	2.3 0	144.00	10.91	71.8 0	66.1 7	0.42	
20 17	Nanji ng, Jiangs u			Cilandr o	CA	0	0		1.30	7. 9 0	18.8 0	2.3 0	144.00	10.91	71.8 0	57.1 4	0.34	
20 17	Nanji ng,			Cilandr o	N	24 0	240		1.30	7. 9	18.8 0	2.3 0	144.00	10.91	71.8 0	89.2 9	2.35	



	Jiangsu								0									
2017	Nanjing, Jiangsu			Cilantro	NCF	240	240		1.30	7.90	18.80	2.30	144.00	10.91	71.80	103.62	3.41	
2017	Nanjing, Jiangsu			Cilantro	NCA	240	240		1.30	7.90	18.80	2.30	144.00	10.91	71.80	74.96	2.53	
2017	Shengyang, Liaoning	123.567	41.417	Tomato	W1	722	300	221	1.50	7.10	6.32	1.40	57.80	23.06	56.26	259.59	0.63	[28]
2017	Shengyang, Liaoning			Tomato	W2	722	300	215	1.50	7.10	6.32	1.40	57.80	23.21	56.26	294.99	0.44	
2017	Shengyang, Liaoning			Tomato	W3	722	300	162	1.50	7.10	6.32	1.40	57.80	23.54	56.26	566.37	0.41	
2017	Shengyang, Liaoning			Tomato	W4	722	300	136	1.50	7.10	6.32	1.40	57.80	23.06	56.26	415.33	0.54	

20 17	Sheng yang, Liaon ing			Tomato	N0	0	0	215	1.50	7. 1 0	6.32	1.4 0	57.80	23.06	56.2 6	310. 09	0.39	
20 17	Sheng yang, Liaon ing			Tomato	N1	75	75	215	1.50	7. 1 0	6.32	1.4 0	57.80	22.58	56.2 6	218. 89	0.47	
20 17	Sheng yang, Liaon ing			Tomato	N2	30 0	300	215	1.50	7. 1 0	6.32	1.4 0	57.80	23.25	56.2 6	302. 28	0.43	
20 17	Sheng yang, Liaon ing			Tomato	N3	52 5	525	215	1.50	7. 1 0	6.32	1.4 0	57.80	23.26	56.2 6	237. 14	0.62	
20 17	Yangl ing, Shanx i	108. 067	34.4 83	Tomato	N0+FI	36 0	0	162	1.28	8. 5 5	8.61	1.4 6	327.00	15.13	47.2 4	18.4 8	0.06	[29]
20 17	Yangl ing, Shanx i			Tomato	FT+FI	81 0	450	162	1.28	8. 5 5	8.61	1.4 6	327.00	15.13	44.9 1	120. 13	2.68	
20 17	Yangl ing,			Tomato	OPT+FI	58 5	225	162	1.28	8. 5	8.61	1.4 6	327.00	15.13	42.8 1	48.8 4	1.15	

	Shanxi								5								
2017	Yangling, Shanxi			Tomato	OPT+OI	585	225	132	1.28	8.55	8.61	1.46	327.00	15.13	47.24	121.45	1.98
2017	Shengyang, Liaoning	123.567	42.017	Tomato	W1N1	339	75	224	1.34	7.10	6.32	1.40	57.80	22.85	43.28	263.33	0.43 [30]
2017	Shengyang, Liaoning			Tomato	W1N2	564	300	221	1.34	7.10	6.32	1.40	57.80	23.10	44.54	255.00	0.63
2017	Shengyang, Liaoning			Tomato	W1N3	789	525	240	1.34	7.10	6.32	1.40	57.80	23.09	49.80	426.67	1.52
2017	Shengyang, Liaoning			Tomato	W2N1	339	75	205	1.34	7.10	6.32	1.40	57.80	22.63	47.43	218.33	0.47
2017	Shengyang, Liaoning			Tomato	W2N2	564	300	215	1.34	7.10	6.32	1.40	57.80	23.21	44.41	290.00	0.43

20 17	Sheng yang, Liaon ing			Tomato	W2N3	78 9	525	199	1.34	7. 1 0	6.32	1.4 0	57.80	23.25	38.7 4	240. 00	0.62	
20 17	Sheng yang, Liaon ing			Tomato	W3N1	33 9	75	165	1.34	7. 1 0	6.32	1.4 0	57.80	23.22	37.1 2	358. 33	0.25	
20 17	Sheng yang, Liaon ing			Tomato	W3N2	56 4	300	162	1.34	7. 1 0	6.32	1.4 0	57.80	23.49	38.0 1	558. 33	0.41	
20 17	Sheng yang, Liaon ing			Tomato	W3N3	78 9	525	181	1.34	7. 1 0	6.32	1.4 0	57.80	23.56	44.2 0	533. 33	0.88	
20 17	Zhenz hou, Hena n	113. 782	34.7 85	Tomato	I1CN1	13 5	135	82	1.37	6. 5 0	7.90	0.8 1	144.00	19.00	56.2 6	15.7 9	0.17	[31]
20 17	Zhenz hou, Hena n			Tomato	I1AN1	13 5	135	82	1.37	6. 5 0	7.90	0.8 1	144.00	19.00	56.2 6	15.3 8	0.25	
20 17	Zhenz hou,			Tomato	I2CN1	13 5	135	124	1.37	6. 5	7.90	0.8 1	144.00	19.00	56.2 6	13.3 6	0.23	

	Hena n									0								
20 17	Zhenz hou, Hena n			Tomato	I2AN1	13 5	135	124	1.37	6. 5 0	7.90	0.8 1	144.00	19.00	56.2 6	5.67	0.31	
20 17	Zhenz hou, Hena n			Tomato	I1CN2	18 0	180	82	1.37	6. 5 0	7.90	0.8 1	144.00	19.00	55.4 0	20.8 5	0.25	
20 17	Zhenz hou, Hena n			Tomato	I1AN2	18 0	180	82	1.37	6. 5 0	7.90	0.8 1	144.00	19.00	53.8 0	16.9 0	0.32	
20 17	Zhenz hou, Hena n			Tomato	I2CN2	18 0	180	124	1.37	6. 5 0	7.90	0.8 1	144.00	19.00	61.1 0	17.1 1	0.31	
20 17	Zhenz hou, Hena n			Tomato	I2AN2	18 0	180	124	1.37	6. 5 0	7.90	0.8 1	144.00	19.00	58.3 0	11.0 3	0.42	
20 18	Yangl ing, Shanx i	108. 400	34.3 33	Tomato	W1F1O	12 0	120	47	1.35	7. 6 5	5.52	1.8 6	144.00	26.11	41.0 2	194. 53	0.38	[32]

2018	Yangling, Shanxi			Tomato	W2F1O	120	120	63	1.35	7.65	5.52	1.86	144.00	26.59	43.02	178.14	0.44	
2018	Yangling, Shanxi			Tomato	W3F1O	120	120	78	1.35	7.65	5.52	1.86	144.00	26.62	44.27	186.82	0.50	
2018	Yangling, Shanxi			Tomato	W3F1CK	120	120	78	1.35	7.65	5.52	1.86	144.00	25.10	44.54	174.28	0.46	
2018	Yangling, Shanxi			Tomato	W1F2O	180	180	47	1.35	7.65	5.52	1.86	144.00	26.33	40.81	205.41	0.41	
2018	Yangling, Shanxi			Tomato	W2F2O	180	180	63	1.35	7.65	5.52	1.86	144.00	26.48	41.53	185.14	0.55	
2018	Yangling, Shanxi			Tomato	W3F2O	180	180	78	1.35	7.65	5.52	1.86	144.00	26.80	44.46	197.30	0.67	
2018	Yangling,			Tomato	W3F2CK	180	180	78	1.35	7.6	5.52	1.86	144.00	25.41	44.50	180.07	0.63	

	Shanxi								5								
2018	Yangling, Shanxi			Tomato	W1F3O	240	240	47	1.35	7.65	5.52	1.86	144.00	26.45	40.14	258.10	0.48
2018	Yangling, Shanxi			Tomato	W2F3O	240	240	63	1.35	7.65	5.52	1.86	144.00	25.98	41.92	237.38	0.61
2018	Yangling, Shanxi			Tomato	W3F3O	240	240	78	1.35	7.65	5.52	1.86	144.00	26.23	43.29	217.76	0.79
2018	Yangling, Shanxi			Tomato	W3F3CK	240	240	78	1.35	7.65	5.52	1.86	144.00	26.05	44.50	176.32	0.68
2018	Xinji, Hebei	115.500	38.300	Cucumber	W1N0	0	0	747	1.35	7.60	8.93	1.55	144.00	20.45	56.26	1.18	0.74 [33]
2018	Xinji, Hebei			Cucumber	W1N900	900	900	747	1.35	7.60	8.93	1.55	144.00	20.45	56.26	10.65	5.50
2018	Xinji, Hebei			Cucumber	W1N1200	1200	1200	747	1.35	7.6	8.93	1.55	144.00	20.45	56.26	18.93	7.92

									0								
20 18	Xinji, Hebei			Cucum ber	W2N600	60 0	600	519	1.35	7. 6 0	8.93	1.5 5	144.00	20.45	56.2 6	15.9 8	2.30
20 18	Xinji, Hebei			Cucum ber	W2N900	90 0	900	519	1.35	7. 6 0	8.93	1.5 5	144.00	20.45	56.2 6	44.9 7	3.01
20 18	Xinji, Hebei			Cucum ber	W2N1200	12 00	1200	519	1.35	7. 6 0	8.93	1.5 5	144.00	20.45	56.2 6	50.3 0	5.01
20 18	Nanji ng, Jiangs u			Water spinach	CK	0	0		1.30	7. 9 0	18.8 0	2.3 0	144.00	20.74	66.4 0	45.8 6	0.65
20 18	Nanji ng, Jiangs u			Water spinach	CF	0	0		1.30	7. 9 0	18.8 0	2.3 0	144.00	20.74	66.4 0	30.8 3	0.48
20 18	Nanji ng, Jiangs u			Water spinach	CA	0	0		1.30	7. 9 0	18.8 0	2.3 0	144.00	20.74	66.4 0	29.3 2	0.43
20 18	Nanji ng, Jiangs u			Water spinach	N	24 0	240		1.30	7. 9 0	18.8 0	2.3 0	144.00	20.74	66.4 0	31.8 7	2.66



2018	Nanji ng, Jiangsu			Water spinach	NCF	240	240		1.30	7.90	18.80	2.30	144.00	20.74	66.40	70.56	1.27	
2018	Nanji ng, Jiangsu			Water spinach	NCA	240	240		1.30	7.90	18.80	2.30	144.00	20.74	66.40	73.42	1.46	
2018	Nanji ng, Jiangsu			Water spinach	CK	0	0		1.30	7.90	18.80	2.30	144.00	26.55	55.41	95.49	2.05	
2018	Nanji ng, Jiangsu			Water spinach	CF	0	0		1.30	7.90	18.80	2.30	144.00	26.55	55.41	65.41	1.46	
2018	Nanji ng, Jiangsu			Water spinach	CA	0	0		1.30	7.90	18.80	2.30	144.00	26.55	55.41	78.95	1.46	
2018	Nanji ng, Jiangsu			Water spinach	N	240	240		1.30	7.90	18.80	2.30	144.00	26.55	55.41	184.96	13.65	
2018	Nanji ng,			Water spinach	NCF	240	240		1.30	7.90	18.80	2.30	144.00	26.55	55.41	217.91	7.86	

	Jiangsu								0								
2018	Nanjing, Jiangsu			Water spinach	NCA	240	240		1.30	7.90	18.80	2.30	144.00	26.55	55.41	192.13	4.67
2018	Nanjing, Jiangsu			Water spinach	CK	0	0		1.30	7.90	18.80	2.30	144.00	20.69	64.69	30.83	1.10
2018	Nanjing, Jiangsu			Water spinach	CF	0	0		1.30	7.90	18.80	2.30	144.00	20.69	64.69	55.64	1.27
2018	Nanjing, Jiangsu			Water spinach	CA	0	0		1.30	7.90	18.80	2.30	144.00	20.69	64.69	31.58	0.77
2018	Nanjing, Jiangsu			Water spinach	N	240	240		1.30	7.90	18.80	2.30	144.00	20.69	64.69	146.14	4.90
2018	Nanjing, Jiangsu			Water spinach	NCF	240	240		1.30	7.90	18.80	2.30	144.00	20.69	64.69	130.38	1.47

2018	Nanjing, Jiangsu			Water spinach	NCA	240	240		1.30	7.90	18.80	2.30	144.00	20.69	64.69	118.92	2.20	
2018	Yanan, Beijing	116.096	40.504	Tomato	CK	0	0		1.21	7.60	27.40	3.10	55.60	20.45	56.26	11.98	1.62	[34]
2018	Yanan, Beijing			Tomato	U	440	320		1.21	7.60	27.40	3.10	55.60	20.45	56.26	82.58	5.23	
2018	Yanan, Beijing			Tomato	-20%U	376	256		1.21	7.60	27.40	3.10	55.60	20.45	56.26	62.69	4.52	
2018	Yanan, Beijing			Tomato	CRU	440	320		1.21	7.60	27.40	3.10	55.60	20.45	56.26	55.93	4.19	
2018	Yanan, Beijing			Tomato	-20%CRU	376	256		1.21	7.60	27.40	3.10	55.60	20.45	56.26	48.47	3.70	
2018	Zhenzhou,	113.233	34.450	Pepper	N111A1	300	300	422	1.30	7.5	11.24	1.66	38.87	26.75	47.13	86.12	0.36	[35]

	Hena n								0									
20 18	Zhenz hou, Hena n			Pepper	N1I1A0	30 0	300	422	1.30	7. 5 0	11.2 4	1.6 6	38.87	26.61	46.4 5	69.3 3	0.25	
20 18	Zhenz hou, Hena n			Pepper	N1I2A1	30 0	300	253	1.30	7. 5 0	11.2 4	1.6 6	38.87	26.32	40.6 2	103. 44	0.25	
20 18	Zhenz hou, Hena n			Pepper	N1I2A0	30 0	300	253	1.30	7. 5 0	11.2 4	1.6 6	38.87	26.49	40.9 0	75.1 0	0.18	
20 18	Zhenz hou, Hena n			Pepper	N2I1A1	22 5	225	422	1.30	7. 5 0	11.2 4	1.6 6	38.87	26.45	47.2 1	54.9 6	0.25	
20 18	Zhenz hou, Hena n			Pepper	N2I1A0	22 5	225	422	1.30	7. 5 0	11.2 4	1.6 6	38.87	26.35	45.9 4	47.1 3	0.21	
20 18	Zhenz hou, Hena n			Pepper	N2I2A1	22 5	225	253	1.30	7. 5 0	11.2 4	1.6 6	38.87	26.58	39.4 0	83.6 5	0.17	

2018	Zhenzhou, Henan			Pepper	N2I2A0	225	225	253	1.30	7.50	11.24	1.66	38.87	26.51	38.54	64.35	0.15	
2018	Yangling, Shanxi			Watermelon	N0+FI	30	0	90	1.28	8.55	8.61	1.46	327.00	22.28	52.84	26.40	0.02	
2018	Yangling, Shanxi			Watermelon	FT+FI	280	250	90	1.28	8.55	8.61	1.46	327.00	22.28	54.52	327.39	1.23	
2018	Yangling, Shanxi			Watermelon	OPT+FI	180	150	90	1.28	8.55	8.61	1.46	327.00	22.28	50.72	105.61	0.61	
2018	Yangling, Shanxi			Watermelon	OPT+OI	180	150	77	1.28	8.55	8.61	1.46	327.00	22.28	53.68	223.10	0.77	
2018	Zhenzhou, Henan			Pepper	I3CN3	225	225	96	1.37	6.50	7.90	1.01	144.00	23.30	56.26	107.76	1.38	
2018	Zhenzhou,			Pepper	I3AN3	225	225	96	1.37	6.5	7.90	1.01	144.00	23.30	56.26	105.94	2.06	

	Hena n								0								
20 18	Zhenz hou, Hena n			Pepper	I4CN3	22 5	225	161	1.37	6. 5 0	7.90	1.0 1	144.00	23.30	56.2 6	83.1 1	2.56
20 18	Zhenz hou, Hena n			Pepper	I4AN3	22 5	225	161	1.37	6. 5 0	7.90	1.0 1	144.00	23.30	56.2 6	60.2 7	2.84
20 18	Zhenz hou, Hena n			Pepper	I3CN4	30 0	300	96	1.37	6. 5 0	7.90	1.0 1	144.00	23.30	49.1 2	128. 77	2.77
20 18	Zhenz hou, Hena n			Pepper	I3AN4	30 0	300	96	1.37	6. 5 0	7.90	1.0 1	144.00	23.30	47.1 3	117. 81	3.66
20 18	Zhenz hou, Hena n			Pepper	I4CN4	30 0	300	161	1.37	6. 5 0	7.90	1.0 1	144.00	23.30	55.2 7	110. 50	3.93
20 18	Zhenz hou, Hena n			Pepper	I4AN4	30 0	300	161	1.37	6. 5 0	7.90	1.0 1	144.00	23.30	53.8 1	100. 46	4.58

20 18	Langfang, Hebei	116. 455	39.2 23	Cucumber	CK	19 0	0		1.28	7. 4 9	15.5 0	0.8 8	236.54	20.45	56.2 6	40.8 4	1.48	[36]
20 18	Langfang, Hebei			Cucumber	N1	70 4	514		1.28	7. 4 9	15.5 0	0.8 8	236.54	20.45	56.2 6	100. 00	7.43	
20 18	Langfang, Hebei			Cucumber	N2	50 6	316		1.28	7. 4 9	15.5 0	0.8 8	236.54	20.45	56.2 6	73.8 5	5.47	
20 18	Langfang, Hebei			Cucumber	N2J	50 6	316		1.28	7. 4 9	15.5 0	0.8 8	236.54	20.45	56.2 6	62.0 3	5.16	
20 18	Langfang, Hebei			Cucumber	N2D	50 6	316		1.28	7. 4 9	15.5 0	0.8 8	236.54	20.45	56.2 6	41.7 2	4.37	
20 18	Langfang, Hebei			Cucumber	N2DJ	50 6	316		1.28	7. 4 9	15.5 0	0.8 8	236.54	20.45	56.2 6	54.0 8	4.35	
20 18	Baoding, Hebei	115. 447	38.8 26	Tomato	CK	0	0	27	1.31	7. 3 0	10.7 9	1.7 0	161.80	20.45	56.2 6	49.0 0	0.28	[37]
20 18	Baoding, Hebei			Tomato	TN	60 0	516	27	1.31	7. 3 0	10.7 9	1.7 0	161.80	20.45	56.2 6	87.2 5	2.01	
20 18	Baoding, Hebei			Tomato	ON	48 0	396	21	1.31	7. 3	10.7 9	1.7 0	161.80	20.45	56.2 6	212. 75	1.64	

	Hebei									0								
2018	Baoding, Hebei			Tomato	ON+DCD	480	396	21	1.31	7.30	10.79	1.70	161.80	20.45	56.26	152.99	0.77	
2018	Baoding, Hebei			Tomato	ON+DMPP	480	396	21	1.31	7.30	10.79	1.70	161.80	20.45	56.26	242.63	1.17	
2018	Xinhua, Jiangsu	120.450	33.417	Pepper	CK	0	0		1.23	6.54	28.30	1.75	630.33	16.61	34.95	155.43	3.12	[38]
2018	Xinhua, Jiangsu			Pepper	CF	450	450		1.23	6.54	28.30	1.75	630.33	16.61	36.28	576.00	12.27	
2018	Xinhua, Jiangsu			Pepper	OF	450	0		1.23	6.54	28.30	1.75	630.33	16.61	35.45	150.86	2.87	
2018	Xinhua, Jiangsu			Pepper	BOF	450	0		1.23	6.54	28.30	1.75	630.33	16.61	34.59	356.57	7.66	
2018	Daxin, Beijing	116.561	39.663	Tomato	CK	353	203		1.29	7.52	13.33	1.66	34.19	22.53	46.92	19.38	1.57	[39]



	g																	
20 18	Daxin , Beijin g			Tomato	Y5	35 3	203		1.28	7. 5 0	15.4 5	1.6 6	45.80	24.82	58.4 6	27.9 8	2.51	
20 18	Daxin , Beijin g			Tomato	Y10	35 3	203		1.26	7. 3 6	17.7 1	1.6 6	72.17	25.69	58.1 6	52.6 2	3.35	
20 18	Daxin , Beijin g			Tomato	Y15	35 3	203		1.26	7. 2 9	18.7 4	1.6 6	97.96	26.14	59.7 8	80.3 7	3.69	
20 18	Daxin , Beijin g			Tomato	Y20	35 3	203		1.25	7. 2 1	19.4 5	1.6 6	116.22	26.06	59.1 2	98.1 2	4.16	
20 19	Yangl ing, Shanx i	108. 036	34.2 80	Tomato	CK	0	0	251	1.31	8. 3 0	10.3 8	0.6 0	20.10	20.45	78.6 4	9.52	0.54	[40]
20 19	Yangl ing, Shanx			Tomato	CN	65 0	500	251	1.31	8. 3 0	10.3 8	0.6 0	20.10	20.45	78.6 4	32.1 4	4.53	

	i																	
20 19	Yangling, Shanxi			Tomato	N	390	390	198	1.31	8.30	10.38	0.60	20.10	20.45	75.23	22.02	1.02	
20 19	Yangling, Shanxi			Tomato	N+DMPP	390	390	198	1.31	8.30	10.38	0.60	20.10	20.45	75.23	28.57	0.90	
20 19	Yangling, Shanxi			Tomato	MN	390	300	198	1.31	8.30	10.38	0.60	20.10	20.45	75.23	17.86	1.88	
20 19	Yangling, Shanxi			Tomato	MNS	390	300	198	1.31	8.30	10.38	0.60	20.10	20.45	75.23	20.83	2.19	
20 19	Yangling, Shanxi			Melon	CK	0	0	156	1.31	8.30	10.38	0.60	20.10	20.45	92.11	13.83	0.27	
20 19	Yangling, Shanxi			Melon	CN	300	230	156	1.31	8.30	10.38	0.60	20.10	20.45	92.11	123.68	5.28	
20	Yangling			Melon	N	24	240	112	1.31	8.	10.3	0.6	20.10	20.45	81.0	74.7	1.19	

19	ing, Shanxi					0				3 0	8	0			3	3		
20 19	Yangling, Shanxi			Melon	N+DMPP	24 0	240	112	1.31	8. 3 0	10.3 8	0.6 0	20.10	20.45	81.0 3	56.8 2	0.58	
20 19	Yangling, Shanxi			Melon	MN	24 0	180	112	1.31	8. 3 0	10.3 8	0.6 0	20.10	20.45	81.0 3	53.2 4	2.47	
20 19	Yangling, Shanxi			Melon	MNS	24 0	180	112	1.31	8. 3 0	10.3 8	0.6 0	20.10	20.45	81.0 3	58.0 2	2.42	
20 19	Langfang, Hebei	116. 407	39.2 59	Tomato	CK	0	0	135	1.31	6. 9 4	9.85	1.7 2	144.00	20.45	56.2 6	164. 32	1.71	[41]
20 19	Langfang, Hebei			Tomato	CT	20 0	200	319	1.31	6. 9 4	9.85	1.7 2	144.00	20.45	56.2 6	299. 46	3.83	
20 19	Langfang, Hebei			Tomato	CY	11 8	118	325	1.31	6. 9 4	9.85	1.7 2	144.00	20.45	56.2 6	139. 32	3.08	
20 19	Langfang,			Tomato	WY	11 8	118	131	1.31	6. 9	9.85	1.7 2	144.00	20.45	56.2 6	170. 40	2.61	

	Hebei									4								
2019	Shengyang, Liaoning	123.567	41.617	Tomato	W1	722	300	296	1.51	7.00	6.32	1.40	57.80	20.45	67.28	113.21	1.27	[42]
2019	Shengyang, Liaoning			Tomato	W2	722	300	254	1.51	7.00	6.32	1.40	57.80	20.45	61.03	203.77	0.93	
2019	Shengyang, Liaoning			Tomato	W3	722	300	227	1.51	7.00	6.32	1.40	57.80	20.45	54.75	456.60	1.31	
2019	Shengyang, Liaoning			Tomato	W4	722	300	210	1.51	7.00	6.32	1.40	57.80	20.45	52.82	871.70	1.80	
2019	Baoding, Hebei	115.567	39.167	Eggplant	CK	0	0		1.35	7.83	10.77	1.10	128.64	20.45	56.26	44.24	0.76	[43]
2019	Baoding, Hebei			Eggplant	T	720	720		1.35	7.83	10.77	1.10	128.64	20.45	56.26	162.91	7.51	
2019	Baoding, Hebei			Eggplant	R	504	504		1.35	7.83	10.77	1.10	128.64	20.45	56.26	139.83	5.55	

2019	Baodi ng, Hebei			Eggpla nt	RP	50 4	504		1.35	7. 8 3	10.7 7	1.1 0	128.64	20.45	56.2 6	114. 56	3.77	
2019	Baodi ng, Hebei			Eggpla nt	RB	50 4	504		1.35	7. 8 3	10.7 7	1.1 0	128.64	20.45	56.2 6	132. 14	5.28	
2019	Baodi ng, Hebei			Eggpla nt	RPB	50 4	504		1.35	7. 8 3	10.7 7	1.1 0	128.64	20.45	56.2 6	109. 06	3.76	
2019	Fangs han, Beijin g	115. 933	39.8 00	Tomato	CK	0	0	156	1.40	8. 0 0	19.7 2	1.9 0	168.10	24.45	60.2 0	46.9 9	3.27	[44]
2019	Fangs han, Beijin g			Tomato	FP	15 50	750	156	1.40	8. 0 0	19.7 2	1.9 0	168.10	24.45	60.2 0	132. 24	19.66	
2019	Fangs han, Beijin g			Tomato	R	11 00	300	156	1.40	8. 0 0	19.7 2	1.9 0	168.10	24.45	60.2 0	161. 75	11.33	
2019	Fangs han, Beijin g			Tomato	R+DCD	11 00	300	156	1.40	8. 0 0	19.7 2	1.9 0	168.10	24.45	60.2 0	107. 10	9.46	
20	Fangs			Cabbag	CK	0	0	321	1.40	8.	19.7	1.9	168.10	18.73	59.5	7.65	0.46	

19	han, Beijin g			e					0 0	2	0			5			
20 19	Fangs han, Beijin g			Cabbag e	FP	80 0	400	321	1.40	8. 0 0	19.7 2	1.9 0	168.10	18.73	59.5 5	33.8 8	6.92
20 19	Fangs han, Beijin g			Cabbag e	R	66 5	265	321	1.40	8. 0 0	19.7 2	1.9 0	168.10	18.73	59.5 5	18.5 8	4.62
20 19	Fangs han, Beijin g			Cabbag e	R+DCD	66 5	265	321	1.40	8. 0 0	19.7 2	1.9 0	168.10	18.73	59.5 5	39.3 4	3.96
20 19	Fangs han, Beijin g			Tomato	CK	0	0	162	1.40	8. 0 0	19.7 2	1.9 0	168.10	20.68	61.1 4	13.1 1	1.15
20 19	Fangs han, Beijin g			Tomato	FP	15 50	750	162	1.40	8. 0 0	19.7 2	1.9 0	168.10	20.68	61.1 4	178. 14	12.99
20 19	Fangs han, Beijin			Tomato	R	11 00	300	162	1.40	8. 0 0	19.7 2	1.9 0	168.10	20.68	61.1 4	115. 85	8.06

	g																	
20 19	Fangs han, Beijin g			Tomato	R+DCD	11 00	300	162	1.40	8. 0 0	19.7 2	1.9 0	168.10	20.68	61.1 4	92.9 0	4.85	
20 19	Fangs han, Beijin g			Chines e cabbag e	CK	0	0	190	1.40	8. 0 0	19.7 2	1.9 0	168.10	20.19	67.7 5	25.1 4	0.36	
20 19	Fangs han, Beijin g			Chines e cabbag e	FP	12 0	120	190	1.40	8. 0 0	19.7 2	1.9 0	168.10	20.19	67.7 5	44.8 1	2.09	
20 19	Fangs han, Beijin g			Chines e cabbag e	R	48	48	190	1.40	8. 0 0	19.7 2	1.9 0	168.10	20.19	67.7 5	55.7 4	1.13	
20 19	Fangs han, Beijin g			Chines e cabbag e	R+DCD	48	48	190	1.40	8. 0 0	19.7 2	1.9 0	168.10	20.19	67.7 5	50.2 7	0.94	
20 19	Fangs han, Beijin g			Lettuce	CK	0	0	109	1.40	8. 0 0	19.7 2	1.9 0	168.10	9.56	68.9 3	10.9 3	0.15	
20	Fangs			Lettuce	FP	80	400	109	1.40	8.	19.7	1.9	168.10	9.56	68.9	151.	5.53	

19	han, Beijing					0				0 0	2	0			3	91		
20 19	Fangshan, Beijing			Lettuce	R	56 0	160	109	1.40	8. 0 0	19.7 2	1.9 0	168.10	9.56	68.9 3	42.6 2	3.55	
20 19	Fangshan, Beijing			Lettuce	R+DCD	56 0	160	109	1.40	8. 0 0	19.7 2	1.9 0	168.10	9.56	68.9 3	93.9 9	2.33	
20 19	Fangshan, Beijing			Tomato	CK	0	0	92	1.40	8. 0 0	19.7 2	1.9 0	168.10	22.62	62.3 7	21.8 6	1.07	
20 19	Fangshan, Beijing			Tomato	FP	15 50	750	92	1.40	8. 0 0	19.7 2	1.9 0	168.10	22.62	62.3 7	126. 78	14.43	
20 19	Fangshan, Beijing			Tomato	R	11 00	300	92	1.40	8. 0 0	19.7 2	1.9 0	168.10	22.62	62.3 7	65.5 7	5.57	
20 19	Fangshan, Beijing			Tomato	R+DCD	11 00	300	92	1.40	8. 0 0	19.7 2	1.9 0	168.10	22.62	62.3 7	92.9 0	5.00	



	g																	
2019	Fangshan, Beijing			Cabbage	CK	0	0	173	1.40	8.00	19.72	1.90	168.10	21.25	61.86	18.58	0.59	
2019	Fangshan, Beijing			Cabbage	FP	800	400	173	1.40	8.00	19.72	1.90	168.10	21.25	61.86	77.60	4.28	
2019	Fangshan, Beijing			Cabbage	R	560	160	173	1.40	8.00	19.72	1.90	168.10	21.25	61.86	79.78	3.83	
2019	Fangshan, Beijing			Cabbage	R+DCD	560	160	173	1.40	8.00	19.72	1.90	168.10	21.25	61.86	71.04	2.17	
2019	Nanjing, Jiangsu	118.767	31.717	Cucumber	CK	0	0		1.13	5.83	13.42	1.79	81.83	23.57	56.25	18.83	0.74	[45]
2019	Nanjing, Jiangsu			Cucumber	CF	180	180		1.13	5.83	13.42	1.79	81.83	23.57	62.66	24.48	1.89	
20	Nanjing			Cucumber	OF	18	0		1.13	5.	13.4	1.7	81.83	23.57	56.2	22.5	1.19	

19	ng, Jiangsu			ber		0				8 3	2	9			3	9		
20 19	Shouguang, Shandong	118.733	36.917	tomatoe	Control	118	118	722	1.57	7.40	13.99	1.66	144.00	24.11	56.26	15.00	5.90	[46]
20 19	Shouguang, Shandong			tomatoe	ASD+RM	118	118	722	1.58	6.90	13.99	1.66	144.00	23.43	56.26	28.93	4.00	
20 19	Shouguang, Shandong			tomatoe	ASD+R	80	80	553	1.51	7.00	13.99	1.66	144.00	23.00	56.26	11.07	2.40	
20 20	Langfang, Hebei	116.761	39.621	Melon	CK	0	0		1.31	7.48	9.80	1.65	127.83	20.45	56.26	31.13	0.71	[47]
20 20	Langfang, Hebei			Melon	TN	500	500		1.31	7.48	9.80	1.65	127.83	20.45	56.26	93.98	3.83	
20 20	Langfang, Hebei			Melon	ON	350	350		1.31	7.48	9.80	1.65	127.83	20.45	56.26	84.85	2.69	
20 20	Langfang,			Melon	ONC1	350	350		1.31	7.4	9.80	1.65	127.83	20.45	56.26	95.01	2.35	

	Hebei								8									
20 20	Langfang, Hebei			Melon	ONC2	350	350		1.31	7.48	9.80	1.65	127.83	20.45	56.26	91.09	1.87	
20 20	Langfang, Hebei			Melon	ONC3	350	350		1.31	7.48	9.80	1.65	127.83	20.45	56.26	90.71	1.98	
20 21	Shengyang, Liaoning	123.567	41.817	Tomato	W1N1	505	75	287	1.34	7.10	6.32	1.40	57.80	20.45	56.26	119.70	0.09	[48]
20 21	Shengyang, Liaoning			Tomato	W1N2	730	300	296	1.34	7.10	6.32	1.40	57.80	20.45	56.26	115.27	0.13	
20 21	Shengyang, Liaoning			Tomato	W1N3	955	525	310	1.34	7.10	6.32	1.40	57.80	20.45	56.26	505.42	0.13	
20 21	Shengyang, Liaoning			Tomato	W2N1	505	75	262	1.34	7.10	6.32	1.40	57.80	20.45	56.26	191.58	0.06	
20 21	Shengyang, Liaoning			Tomato	W2N2	730	300	254	1.34	7.10	6.32	1.40	57.80	20.45	56.26	187.13	0.10	

	ing																	
20 21	Sheng yang, Liaon ing			Tomato	W2N3	95 5	525	264	1.34	7. 1 0	6.32	1.4 0	57.80	20.45	56.2 6	231. 68	0.17	
20 21	Sheng yang, Liaon ing			Tomato	W3N1	50 5	75	235	1.34	7. 1 0	6.32	1.4 0	57.80	20.45	56.2 6	275. 56	0.08	
20 21	Sheng yang, Liaon ing			Tomato	W3N2	73 0	300	227	1.34	7. 1 0	6.32	1.4 0	57.80	20.45	56.2 6	457. 78	0.13	
20 21	Sheng yang, Liaon ing			Tomato	W3N3	95 5	525	227	1.34	7. 1 0	6.32	1.4 0	57.80	20.45	56.2 6	826. 67	0.19	
20 21	Sub-u rban, Beijin g	115. 933	39.7 00	Tomato	FP	15 50	750	167	1.40	8. 0 0	19.0 0	1.9 0	144.00	24.16	60.2 5	132. 30	19.66	[49]
20 21	Sub-u rban, Beijin g			Tomato	R	11 00	300	167	1.40	8. 0 0	19.0 0	1.9 0	144.00	24.16	60.2 5	72.8 7	11.33	
20	Sub-u			Tomato	R+DCD	11	300	167	1.40	8.	19.0	1.9	144.00	24.16	60.2	41.8	9.46	

21	rban, Beijin g					00				0 0	0	0			5	6		
20 21	Sub-u rban, Beijin g			Cabbag e	FP	80 0	400	321	1.40	8. 0 0	19.0 0	1.9 0	144.00	16.36	59.1 5	37.3 5	6.92	
20 21	Sub-u rban, Beijin g			Cabbag e	R	66 5	225	321	1.40	8. 0 0	19.0 0	1.9 0	144.00	16.36	59.1 5	13.9 5	4.62	
20 21	Sub-u rban, Beijin g			Cabbag e	R+DCD	66 5	225	321	1.40	8. 0 0	19.0 0	1.9 0	144.00	16.36	59.1 5	41.8 6	3.97	
20 21	Sub-u rban, Beijin g			Tomato	FP	15 50	750	169	1.40	8. 0 0	19.0 0	1.9 0	144.00	20.25	60.4 3	182. 10	12.99	
20 21	Sub-u rban, Beijin g			Tomato	R	11 00	300	169	1.40	8. 0 0	19.0 0	1.9 0	144.00	20.25	60.4 3	119. 38	8.06	
20 21	Sub-u rban, Beijin			Tomato	R+DCD	11 00	300	169	1.40	8. 0 0	19.0 0	1.9 0	144.00	20.25	60.4 3	54.2 6	4.85	

	g																	
20 21	Sub-urban, Beijing			Pakchoi	FP	120	120	140	1.40	8.00	19.00	1.90	144.00	25.48	65.46	45.14	2.09	
20 21	Sub-urban, Beijing			Pakchoi	R	48	48	140	1.40	8.00	19.00	1.90	144.00	25.48	65.46	44.96	1.13	
20 21	Sub-urban, Beijing			Pakchoi	R+DCD	48	48	140	1.40	8.00	19.00	1.90	144.00	25.48	65.46	52.71	0.94	
20 21	Sub-urban, Beijing			Lettuce	FP	800	400	123	1.40	8.00	19.00	1.90	144.00	10.31	69.17	175.88	5.53	
20 21	Sub-urban, Beijing			Lettuce	R	560	160	123	1.40	8.00	19.00	1.90	144.00	10.31	69.17	117.83	3.55	
20 21	Sub-urban, Beijing			Lettuce	R+DCD	560	160	123	1.40	8.00	19.00	1.90	144.00	10.31	69.17	83.72	2.33	
20	Sub-urban, Beijing			Tomato	FP	15	750	129	1.40	8.00	19.00	1.90	144.00	19.35	62.1	130.	14.43	

21	rban, Beijin g					50				0 0	0	0			7	74		
20 21	Sub-u rban, Beijin g			Tomato	R	11 00	300	129	1.40	8. 0 0	19.0 0	1.9 0	144.00	19.35	62.1 7	72.8 7	5.57	
20 21	Sub-u rban, Beijin g			Tomato	R+DCD	11 00	300	129	1.40	8. 0 0	19.0 0	1.9 0	144.00	19.35	62.1 7	94.5 7	5.00	
20 21	Sub-u rban, Beijin g			Cabbag e	FP	80 0	400	174	1.40	8. 0 0	19.0 0	1.9 0	144.00	26.17	42.1 4	77.8 2	4.28	
20 21	Sub-u rban, Beijin g			Cabbag e	R	56 0	160	174	1.40	8. 0 0	19.0 0	1.9 0	144.00	26.17	42.1 4	79.0 7	3.83	
20 21	Sub-u rban, Beijin g			Cabbag e	R+DCD	56 0	160	174	1.40	8. 0 0	19.0 0	1.9 0	144.00	26.17	42.1 4	74.4 2	2.17	

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