

Factors Related with CH<sub>4</sub> and N<sub>2</sub>O Emissions from a Paddy Field:  
Clues for Management implications. *Plos one*

**Data submitted to Plos one**

Date	CH <sub>4</sub> emission (mg m <sup>-2</sup> h <sup>-1</sup> )	SE
1	0.04	0.01
8	0.21	0.14
15	0.23	0.01
22	0.56	0.03
29	6.51	0.73
36	7.62	1.16
43	6.82	0.60
50	5.65	1.43
57	6.98	0.97
64	5.40	1.28
71	8.00	0.96
78	0.75	0.12
85	0.33	0.04
92	0.28	0.08
Date	N <sub>2</sub> O emission (μg m <sup>-2</sup> h <sup>-1</sup> )	SE
1	16.93	37.02
8	358.83	5.89
15	-5.21	24.38
22	216.66	5.75
29	-4.90	21.49
36	-0.73	10.18
43	-25.14	42.16
50	-84.77	54.44
57	-5.49	18.96
64	-32.88	67.69
71	1.29	18.65
78	-1.00	34.06
85	57.36	34.52
92	14.34	22.73
36 DAT	CH <sub>4</sub> diurnal emission (mg m <sup>-2</sup> h <sup>-1</sup> )	SE
9:00	7.06	2.05
12:00	8.64	3.33
15:00	16.65	4.31
18:00	9.36	2.51

	21:00	7.95	2.68
	24:00	7.83	2.30
	3:00	6.91	1.91
	6:00	7.51	3.09
85 DAT		CH <sub>4</sub> diurnal emission (mg m <sup>-2</sup> h <sup>-1</sup> )	SE
	9:00	1.07	0.22
	12:00	1.07	0.16
	15:00	0.59	0.17
	18:00	0.44	0.25
	21:00	0.36	0.22
	24:00	0.35	0.14
	3:00	0.30	0.15
	6:00	0.05	0.06
36 DAT		N <sub>2</sub> O diurnal emission (µg m <sup>-2</sup> h <sup>-1</sup> )	SE
	9:00	1.11	2.05
	12:00	-3.50	3.33
	15:00	2.88	4.31
	18:00	-14.02	2.51
	21:00	10.73	2.68
	24:00	2.48	2.30
	3:00	-4.63	1.91
	6:00	-5.97	3.09
85 DAT		N <sub>2</sub> O diurnal emission (µg m <sup>-2</sup> h <sup>-1</sup> )	SE
	9:00	58.08	2.05
	12:00	25.12	3.33
	15:00	13.57	4.31
	18:00	12.28	2.51
	21:00	18.27	2.68
	24:00	-28.53	2.30
	3:00	5.81	1.91
	6:00	25.42	3.09
Date		Air temperature (°C)	SE
	1	18.90	0.61
	8	21.00	1.65
	15	24.70	0.61
	22	28.17	0.76
	29	20.33	0.03
	36	25.50	0.76
	43	25.60	0.79
	50	27.70	0.21
	57	32.33	0.87
	64	33.13	0.74

	71	29.80	0.35
	78	29.17	0.17
	85	33.50	0.21
	92	30.37	0.27
Date		Air humidity (%)	SE
	1	86.77	1.84
	8	58.50	7.87
	15	95.93	2.60
	22	79.50	6.74
	29	96.50	2.11
	36	81.27	2.79
	43	72.50	5.01
	50	30.57	0.87
	57	68.03	2.50
	64	63.17	1.56
	71	81.63	0.57
	78	82.70	1.35
	85	69.20	0.66
	92	76.93	0.78
Date		Soil temperature (°C)	SE
	1	19.93	0.15
	8	18.53	0.13
	15	23.77	0.09
	22	22.83	0.84
	29	19.53	0.18
	36	22.67	0.27
	43	21.63	0.55
	50	22.73	0.09
	57	27.00	0.17
	64	26.63	0.15
	71	27.07	0.03
	78	27.43	0.03
	85	29.13	0.30
	92	28.53	0.41
Date		Soil salinity (mS cm <sup>-1</sup> )	SE
	1	0.71	0.12
	8	0.72	0.11
	15	0.76	0.11
	22	0.74	0.05
	29	0.96	0.09
	36	0.67	0.02
	43	0.80	0.07

50	0.71	0.08
57	0.60	0.07
64	0.46	0.10
71	0.40	0.04
78	0.56	0.13
85	0.34	0.02
92	0.40	0.06
Date	Soil pH	SE
1	6.71	0.09
8	7.38	0.11
15	6.92	0.03
22	4.91	0.01
29	6.94	0.02
36	6.76	0.07
43	6.83	0.04
50	6.65	0.01
57	6.99	0.08
64	6.20	0.07
71	6.32	0.05
78	6.52	0.04
85	6.21	0.01
92	6.18	0.02
Date	Soil Eh (mV)	SE
1	19.30	4.82
8	-20.20	5.92
15	6.03	0.85
22	124.30	1.43
29	3.43	0.81
36	14.73	4.14
43	8.97	1.53
50	21.53	1.37
57	1.17	4.45
64	47.73	3.98
71	41.57	1.72
78	28.60	2.45
85	91.53	1.16
92	95.13	3.09
Date	Soil Fe <sup>3+</sup> concentration (mg g <sup>-1</sup> )	SE
1	3.18	0.63
15	1.33	0.27
29	4.92	0.55
43	2.87	0.62

	57	2.36	0.47
	71	6.99	0.12
	85	7.85	0.56
	92	3.21	1.02
Date	Soil available N concentration (mg kg <sup>-1</sup> )		SE
	1	17.23	2.17
	15	8.37	0.88
	29	16.25	1.01
	43	2.66	0.06
	57	2.88	0.20
	71	3.50	0.15
	85	4.39	0.24
Date	Soil porewater sulfate concentration (mg l <sup>-1</sup> )		SE
	1	163.37	6.06
	15	103.24	9.98
	29	109.53	2.65
	43	29.74	4.00
	57	19.22	1.54
	71	66.89	12.13
Date	Soil porewater DOC concentration (mg l <sup>-1</sup> )		SE
	1	53.66	6.49
	15	76.60	11.65
	29	47.38	6.17
	43	39.93	4.92
	57	36.08	2.44
	71	37.80	4.85
Date	Leaf biomass (g m <sup>-2</sup> )		SE
	1	0.70	0.06
	15	2.80	0.26
	29	25.59	1.70
	43	55.64	7.16
	57	145.14	19.59
	71	231.20	12.44
	85	204.00	8.31
	92	162.40	8.27
Date	Stem biomass (g m <sup>-2</sup> )		SE
	1	0.56	0.02
	15	2.22	0.07
	29	29.08	2.56
	43	61.74	1.51
	57	182.56	31.38
	71	504.40	47.56

	85	383.60	22.41
	92	306.40	55.95
Date		Below ground biomass (g m <sup>-2</sup> )	SE
	1	1.32	0.09
	15	5.30	0.35
	29	22.50	3.39
	43	85.54	13.12
	57	140.33	7.86
	71	150.40	6.11
	85	162.53	4.15
	92	198.21	8.27
Date		Above ground biomass (g m <sup>-2</sup> )	SE
	1	1.26	0.05
	15	5.02	0.21
	29	54.66	4.21
	43	117.38	8.65
	57	327.70	50.93
	71	735.60	51.20
	85	1191.20	57.20
	92	1135.20	164.32
Date		Total ground biomass (g m <sup>-2</sup> )	SE
	1	2.58	0.05
	15	10.32	0.22
	29	77.17	7.58
	43	202.93	17.84
	57	468.03	54.09
	71	886.00	53.02
	85	1353.73	54.04
	92	1333.41	167.52
Date		CH <sub>4</sub> production (mg m <sup>-2</sup> h <sup>-1</sup> )	SE
	1	0.06	0.01
	15	0.47	0.04
	29	6.68	2.68
	43	7.14	0.31
	57	7.52	2.13
	71	8.88	0.80
	78	2.02	1.18
	85	0.90	0.04
	92	0.28	0.09
Date		CH <sub>4</sub> oxidation (mg m <sup>-2</sup> h <sup>-1</sup> )	SE
	1	0.02	0.00
	15	0.24	0.01

	29	0.17	0.07
	43	0.32	0.09
	57	0.54	0.44
	71	0.88	0.24
	78	1.27	0.35
	85	0.57	0.01
	92	0.14	0.03
Date		CH <sub>4</sub> plant transport (mg m <sup>-2</sup> h <sup>-1</sup> )	SE
	1	0.01	0.00
	15	0.18	0.01
	29	5.34	0.57
	43	5.25	0.77
	57	6.09	0.09
	71	7.02	0.14
	78	0.43	0.04
Date		CH <sub>4</sub> ebullition transport (mg m <sup>-2</sup> h <sup>-1</sup> )	SE
	1	0.02	0.01
	15	0.04	0.01
	29	0.97	0.20
	43	1.36	0.21
	57	0.87	0.22
	71	0.95	0.13
	78	0.18	0.01
Date		CH <sub>4</sub> diffusional transport (mg m <sup>-2</sup> h <sup>-1</sup> )	SE
	1	0.01	0.00
	15	0.01	0.01
	29	0.20	0.09
	43	0.21	0.11
	57	0.02	0.01
	71	0.03	0.01
	78	0.01	0.01
Date		Porewater dissolved CH <sub>4</sub> (μmol l <sup>-1</sup> )	SE
	1	2.63	0.41
	15	1.40	0.10
	29	3.14	0.39
	43	6.01	0.91
	57	33.57	12.06
	71	69.52	10.14