

### Supplementary Material

#### **No-tillage promotes C accumulation in soil and a slight increase in yield stability and profitability of rice in subtropical lowland ecosystems**

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## SUPPLEMENTARY DATA

**Table S1.** Rice varieties and rates of N, P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O used to establish rice each crop season from 1994/95 to 2017/18.

Season	Rice variety	Tillage system								
		CT			NT			PG		
		N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
----- kg há <sup>-1</sup>										
1994/95	BR IRGA 410	95	80	80	95	80	80	95	80	80
1995/96	BR IRGA 410	95	80	80	95	80	80	95	80	80
1996/97	BR IRGA 410	64	40	40	64	40	40	64	40	40
1997/98	BR IRGA 410	100	70	105	100	70	105	100	70	105
1998/99	BR IRGA 410	106	60	60	106	60	60	106	60	60
1999/00	BR IRGA 410	60	66	66	60	66	66	60	66	66
2000/01	BR IRGA 410	160	0	60	160	0	60	160	0	60
2001/02	IRGA 422 CL	140	60	90	140	60	90	140	60	90
2002/03	IRGA 422 CL	130	40	60	130	40	60	130	40	60
2003/04	IRGA 422 CL	145	60	90	145	60	90	120	60	90
2004/05	IRGA 417	135	60	90	135	60	90	135	60	90
2005/06	IRGA 417	135	60	90	135	60	90	135	60	90
2006/07	IRGA 422 CL	140	90	135	140	90	135	140	90	135
2007/08	IRGA 422 CL	120	40	90	120	40	90	120	40	90
2008/09	Puitá Inta CL	135	70	105	135	70	105	135	70	105
2009/10	Puitá Inta CL	150	50	75	150	50	75	150	50	75
2014/15	IRGA 424	166	68	108	166	68	108	166	68	108
2015/16	IRGA 424	166	68	108	166	68	108	166	68	108
2016/17	IRGA 424 RI	166	68	108	166	68	108	166	68	108
2017/18	IRGA 424 RI	166	68	108	166	68	108	166	68	108
Average		129	60	87	129	60	87	127	60	87

No rice was harvested in the 2001/02 season because the crop was attacked by birds. Also, soybean was cultivated to control red rice in the growing seasons from 2010/11 to 2013/14.

**Table S2.** Soil bulk density in different layers of an Entisol under three different tillage systems (CT, PG and NT) and native grassland in an adjacent reference area in a subtropical lowland ecosystem in Southern Brazil.

Soil layer (cm)	NT	PG	CT	NG
	-----Mg m <sup>3</sup> -----			
0.0–2.5	1.37	1.38	1.62	1.32
2.5–5.0	1.37	1.38	1.62	1.32
5.0–7.5	1.71	1.55	1.64	1.46
7.5–10	1.71	1.55	1.64	1.46
10–15	1.80	1.65	1.80	1.62
15–20	1.79	1.73	1.84	1.68
20–30	1.79	1.73	1.84	1.68
30–40	1.79	1.73	1.84	1.68

NT no tillage, PG pre-germinated tillage,