

**Supplement Table S1. Indicators of soil-related nutrients at maturity for rice and wheat of the different treatments in the two years**

		<b>pH</b>	<b>Organic C (g/kg)</b>	<b>TSN (g/kg)</b>	<b>Available K (mg/kg)</b>	<b>Exchangeable Ca (cmol/Kg)</b>	<b>Exchangeable Mg (cmol/Kg)</b>
<b>20rice</b>	FP	6.27±0.11a	23.53±2.19b	1.57±0.09b	70.27±8.23b	17.98±1.60a	3.79±0.13a
	SP	6.25±0.14a	29.38±1.43a	1.97±0.03a	82.71±11.98ab	17.04±0.58a	3.76±0.15a
	RSP	6.17±0.31a	30.89a±4.13a	2.05±0.34a	69.03±3.80b	17.25±0.61a	3.69±0.09a
	P0	6.03±0.16a	31.87a±4.20a	2.02±0.19a	76.99±3.92b	17.64±1.33a	3.50±0.32a
	N0	6.38±0.13a	28.02a±3.14a	1.91±0.17a	99.13±12.84a	17.41±0.20a	3.65±0.12a
<b>20wheat</b>	FP	6.33±0.14a	17.28±1.20b	1.11±0.07a	74.33±5.31a	17.85±1.21a	3.87±0.21a
	SP	6.28±0.01a	20.47±2.78ab	1.29±0.14a	86.33±6.65a	18.7±0.19a	4.27±0.34a
	RSP	6.33±0.06a	22.19±3.56a	1.36±0.19a	84.33±8.26a	18.70±2.17a	3.95±0.27a
	P0	6.37±0.18a	21.89±2.90a	1.34±0.13a	86.67±2.05a	17.31±1.07a	3.76±0.17a
	N0	6.29±0.03a	19.30±1.49ab	1.28±0.15a	88.67±10.40a	18.89±0.49a	3.93±0.05a
<b>21rice</b>	FP	6.17±0.06a	21.24±0.46a	1.57±0.09a	77.94±1.72a	17.86±0.98a	3.36±0.19a
	SP	6.20±0.02a	20.38±0.71a	1.97±0.03a	83.38±2.30a	17.43±0.43a	3.65±0.09a
	RSP	5.98±0.16a	20.89±1.07a	2.05±0.34a	80.8±4.45a	17.49±0.85a	3.58±0.15a
	P0	6.11±0.11a	20.75±0.80a	2.02±0.19a	78.92±2.68a	17.38±0.29a	3.27±0.13a
	N0	6.31±0.10a	20.69±0.25a	1.91±0.17a	79.13±1.34a	17.12±0.24a	3.52±0.19a
<b>21wheat</b>	FP	6.22±0.08a	18.95±0.40a	1.31±0.07a	78.67±0.94a	18.41±0.93a	3.78±0.06a
	SP	6.28±0.01a	20.14±1.15a	1.32±0.10a	83±5.35a	18.59±0.07a	3.97±0.04a
	RSP	6.32±0.06a	21.19±1.21a	1.26±0.05a	81.00±3.56a	18.27±1.06a	4.01±0.15a
	P0	6.24±0.06a	19.89±0.77a	1.34±0.06a	86.67±2.05a	17.59±0.72a	3.80±0.06a
	N0	6.3±0.03a	19.63±1.11a	1.26±0.05a	82.00±5.72a	18.91±0.42a	3.92±0.05a

Different lowercase letters in a row indicate significant difference across the five treatments in the same season at  $p < 0.05$