

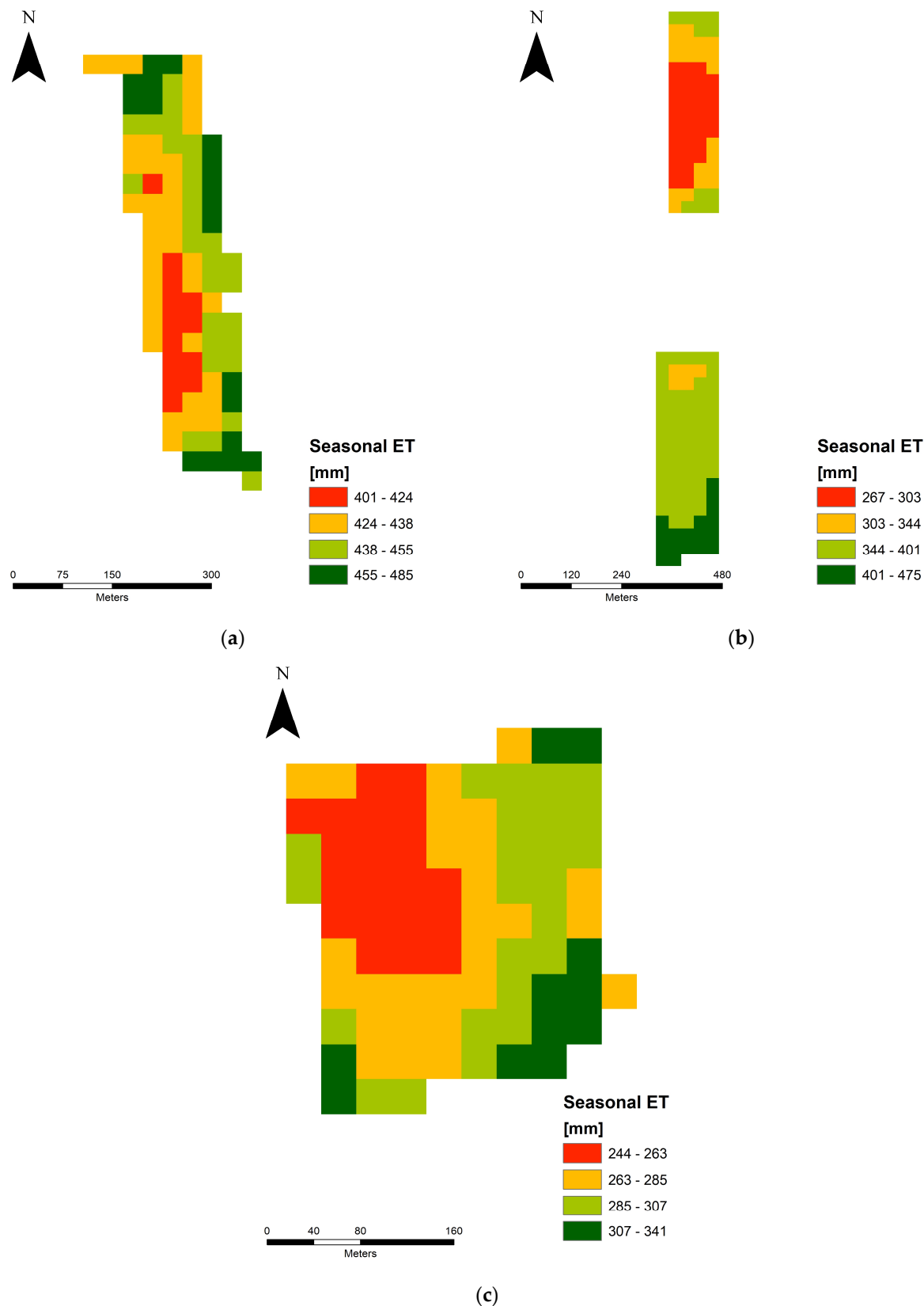
## Supplementary materials

### Table:

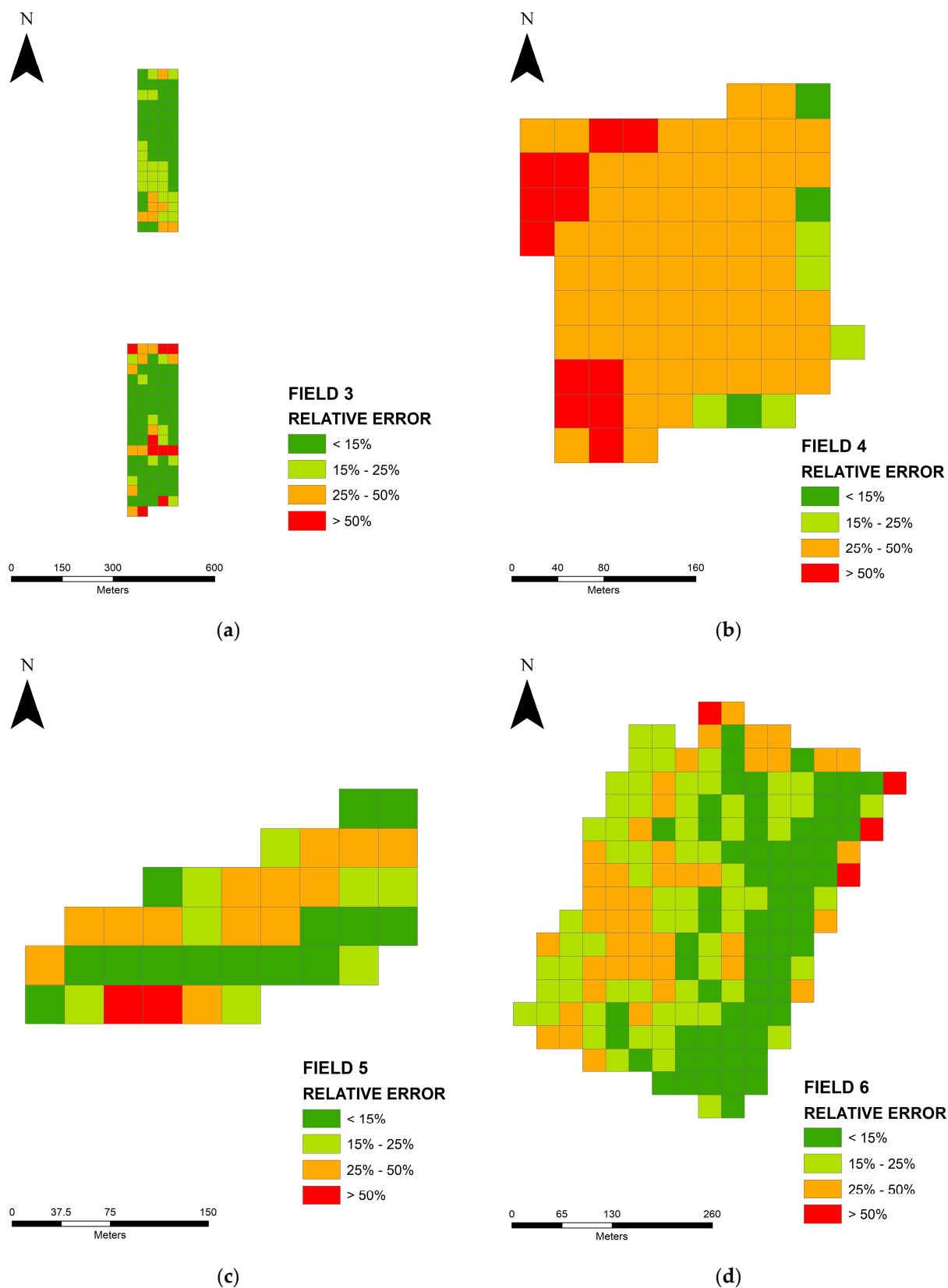
**Table S1.** Soil texture (USDA), TKN, SOC and pH values for all study fields.

Field ID	Depth [m]	Clay [%]	Silt [%]	Sand [%]	pH	SOC [%]	TKN [%]
Field 1	0-0.5	44.9	45.2	9.9	8.12	1.35	0.17
Field 1	0.5-0.8	55.6	41.4	3.0	8.27	0.86	0.12
Field 2	0-0.5	19.8	52.0	28.2	7.89	0.95	0.11
Field 2	0.5-0.8	22.6	50.2	27.2	8.20	0.59	0.07
Field 3	0-0.5	36.4	50.6	13.0	8.00	1.29	0.16
Field 3	0.5-0.8	36.0	53.4	10.6	8.35	0.88	0.11
Field 4	0-0.5	26.1	60.0	13.9	7.99	0.88	0.12
Field 4	0.5-0.8	26.1	60.9	13.0	8.09	0.80	0.10
Field 5	0-0.5	18.8	46.7	34.5	8.00	0.76	0.08
Field 5	0.5-0.8	18.0	40.7	41.3	8.02	0.75	0.08
Field 6	0-0.5	35.1	56.8	8.1	8.00	1.29	0.16
Field 6	0.5-0.8	33.4	55.9	10.7	8.25	0.84	0.11
Field 7	0-0.5	36.1	50.8	13.1	7.99	1.80	0.20
Field 7	0.5-0.8	33.9	50.0	16.1	8.18	1.02	0.12
Field 8	0-0.5	19.9	57.9	22.2	7.70	1.26	0.12
Field 8	0.5-0.8	18.1	56.9	25.0	8.00	1.15	0.10

**Figures:**



**Figure S1.** SEBAL seasonal ET maps generated for Field 2 (a), Field 3 (b) and Field 4 (c).



**Figure S2.** Relative error maps generated for Field 3 (a), Field 4 (b), Field 5 (c), and Field 6 (d) between measured and SEBAL-estimated yields.