Supplementary Materials

Table S1. Growth duration; transplanting and final harvest dates of tomato cultivation; amount of mineral nitrogen, phosphate, potassium and organic fertiliser application; number of irrigation events and total amounts of irrigation water for different seasons in drip fertigation systems.

Seasons and years	**Duration**	**Date of**		**Chicken manure**	**Mineral Nitrogen**	**Phosphate**	**Potassium**	**Total N application**	**Irrigation quantity**	**Number of irrigation events**
	days	Trans-planting	Final harvest	kg N ha^{-1}	kg N ha^{-1}	kg P_2O_5 ha^{-1}	kg K_2O ha^{-1}	kg N ha^{-1}	mm	Frequency $season^{-1}$
2016WS	122	11.03.16	10.07.16	200	220	90	320	420	380	62
2016AW	153	25.08.16	24.01.17	200	190	80	270	390	390	62
2017WS	121	25.02.17	25.06.17	200	180	80	260	380	350	58
2017AW	164	25.08.17	05.02.18	200	200	80	290	400	380	70
2018WS	116	07.03.18	30.06.18	200	194	86	312	394	355	61
2018AW	159	25.08.18	31.01.19	200	175	78	283	375	275	66
2019WS	131	25.02.19	07.07.19	200	159	71	257	359	241	53
2019AW	158	25.08.19	30.01.19	200	180	80	260	380	370	60
2016	275			400	410	170	590	810	770	124
2017	285			400	380	160	650	780	730	128
2018	275			400	369	164	595	769	630	127
2019	289			400	339	151	517	739	611	113
Seasons mean	**141**			**200**	**187**	**81**	**281**	**387**	**343**	**62**
Annual mean	**281**			**400**	**375**	**161**	**588**	**775**	**685**	**123**

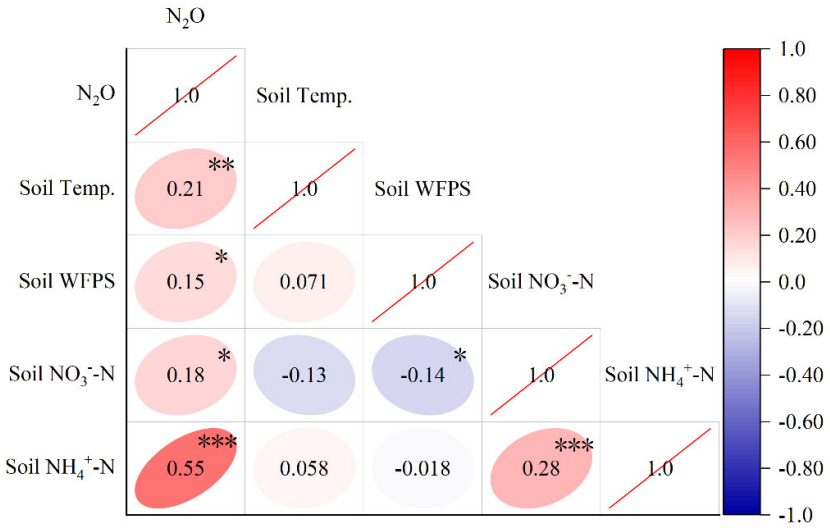

Figure S1. Pearson's correlation between daily N_2O emissions and daily mean values of soil temperature, soil water-filled pore space (WFPS) and soil mineral N concentration (NO_3^--N and NH_4^+-N). For this analysis, all daily observation data obtained during the growing seasons 2018WS, 2018AS and 2019WS were used. *, ** and *** indicate $P < 0.05$, $P < 0.01$, and $P < 0.001$, respectively. N = 208.