

Männistö E., Jetsonen J., Peltola H., Rouvinen T., Launiainen S., Laurén A., Palviainen M. (2026). Short-term impacts of nitrogen fertilization on the cover of vascular plant and bryophyte species in boreal Scots pine and Norway spruce stands. *Silva Fennica* vol. 60 no. 2 article id 25052. <https://doi.org/10.14214/sf.25052>

Supplementary file S1

Mean air temperature and precipitation sum for each month of the growing season (April–September) and for the whole growing season for each research site over the measurement years and as the 30-year average from 1991–2020 (Finnish Meteorological Institute 2023). The first measurement year at the Scots pine-dominated sites of Liperi and Ilomantsi was 2018, while at the Norway spruce-dominated sites of Juuka and Savonranta, the measurements were started in 2019.

		Mean temperature (°C)				Precipitation sum (mm)			
		30 years	2018/19	2021	2022	30 years	2018/19	2021	2022
Liperi	April	2.0	2.4	2.6	1.2	33	44	39	24
	May	9.0	13.3	9.3	8.3	45	37	60	16
	June	14.3	13.8	19.0	15.8	67	58	33	52
	July	17.3	19.8	20.3	18.1	75	51	53	104
	August	15.0	16.8	14.6	17.3	76	86	105	52
	September	9.8	11.2	7.4	8.5	60	80	61	42
	Growing season	11.2	12.9	12.2	11.5	356	355	350	290
Ilomantsi	April	1.7	2.5	2.4	0.7	32	37	20	14
	May	8.7	13.0	9.1	7.5	50	22	78	51
	June	13.9	14.0	18.5	15.4	69	55	27	97
	July	16.7	19.5	19.6	18.2	84	30	54	84
	August	14.5	16.7	14.0	17.2	75	101	123	37
	September	9.3	11.1	6.7	8.0	62	77	39	49
	Growing season	10.8	12.8	11.7	11.2	373	322	341	333
Juuka	April	1.6	3.4	2.0	0.8	33	23	37	35
	May	8.3	7.8	8.9	7.6	50	90	77	31
	June	13.5	15.7	17.7	15.1	70	39	76	73
	July	16.3	14.1	18.7	17.3	84	31	36	132
	August	13.9	13.3	13.4	15.9	73	29	118	31
	September	8.9	8.5	6.6	7.5	70	51	34	30
	Growing season	10.4	10.5	11.2	10.7	370	264	377	332
Savonranta	April	2.4	3.6	2.7	1.2	31	32	27	18
	May	8.9	9.0	9.3	8.3	43	81	96	16
	June	14.0	16.0	18.3	15.1	68	25	38	70
	July	16.4	13.9	18.8	17.6	79	40	45	83
	August	14.3	13.5	14.1	16.4	76	40	115	28
	September	9.2	9.1	7.0	8.1	65	88	41	38
	Growing season	10.8	10.9	11.7	11.1	362	304	362	254