

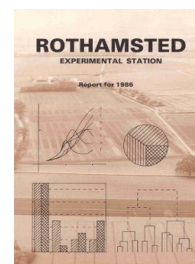
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Rothamsted Experimental Station Report for 1986

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Weather Tables

Rothamsted Research

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WEATHER TABLES

ROTHAMSTED WEATHER 1985-86
Latitude 51° 48' 30" N; Longitude 0° 21' 10" W; Altitude 128 m

	1986												1985			
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
TEMPERATURE (°C)																
Mean screen maximum	14.5	6.5	8.5	5.7	0.1	8.6	9.2	15.1	19.8	20.8	18.6	16.3	15.0	10.5	8.4	12.3
Difference from average	+0.6	-2.5	+1.7	+0.2	-5.9	-0.3	-2.8	-0.7	+0.8	+0.3	-1.8	-1.6	+1.1	+1.5	+1.6	-0.6
Mean screen minimum	7.4	0.4	4.1	0.0	-4.5	0.7	2.0	6.3	9.1	11.2	9.7	6.3	7.2	4.1	2.3	4.5
Difference from average	+0.9	-2.5	+2.8	-0.1	-4.7	-0.7	-1.4	0.0	+0.1	+0.3	-1.2	-2.9	+0.7	+1.2	+1.0	-0.6
Soil at 10 cm	10.3	3.9	5.9	2.1	0.3	2.8	5.0	10.5	15.1	17.6	14.7	10.9	10.0	6.6	4.3	8.3
Dew point	8.7	1.6	5.1	0.5	-4.3	2.0	2.9	7.4	10.2	12.3	10.6	8.2	9.0	5.9	3.1	5.7
No. of days with ground frost	12	22	13	25	27	22	19	12	4	0	2	13	7	15	21	167
RADIATION																
Sunshine (h per month)	110	81	38	73	67	123	121	176	225	187	151	170	121	68	53	1535
Difference from average	+10	+19	-7	+24	+5	+15	-19	-13	+28	+7	-16	+29	+21	+6	+8	+95
Mean daily radiation (MJ m ⁻² day ⁻¹)	6.1	3.5	1.6	2.5	4.9	8.3	11.2	14.6	18.9	16.6	12.9	11.3	6.6	3.0	1.9	9.4
Difference from average	+0.5	+0.7	-0.1	+0.3	+0.8	+0.8	-0.5	-1.0	+1.4	+0.7	-0.4	+1.5	+1.0	+0.2	+0.2	+0.4
WIND (km day ⁻¹)																
Wind run at 2 m	133	219	249	326	295	259	232	226	190	130	152	170	191	234	303	226
WATER (mm per month)																
Rainfall (5 inch walled gauge)	22	51	108	85	26	56	84	62	16	44	104	30	88	85	82	762
Difference from average	-37	-19	+39	+22	-26	+4	+37	+11	-41	-7	+42	-29	+28	+16	+13	+70
Rain days	8	17	20	20	8	20	22	22	7	13	12	4	14	22	18	182
Drainage through 50 cm bare undisturbed soil	0	11	95	63	15	34	54	11	TR	TR	46	10	48	92	62	435
Open water (tank) evaporation	48	19	10	12	0	26	37	70	110	115	115	84	52	15	13	649
Potential evaporation	19	5	0	4	11	30	44	71	101	86	72	44	19	1	4	487

NOTES ON THE TABLE

1. Except for potential evaporation, all quantities are measured.
2. Drainage and evaporation are measured in inches.
3. Averages are for 30 years 1951-80, except radiation 29 years 1956-85.

WOBURN WEATHER 1985-86

Latitude 52° 1' 5" N; Longitude 0° 35' 35" W; Altitude 89 m

	1986												1985	
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	
TEMPERATURE (°C)														
Mean screen maximum	6.1	0.5	9.1	9.7	15.8	20.5	21.3	18.6	16.7	15.3	10.9	8.8	12.8	
Difference from average	+0.2	-5.8	0.0	-2.4	0.0	-1.4	+0.6	-1.7	-1.3	+1.3	+1.7	+1.8	-0.3	
Mean screen minimum	0.6	-5.5	1.3	2.2	7.1	9.1	11.3	10.1	5.5	6.5	4.7	2.7	4.6	
Difference from average	+0.1	-5.9	-0.2	-1.1	+0.9	+0.2	+0.4	-0.7	-3.6	0.0	+1.5	+1.2	-0.6	
Soil at 10 cm	2.5	0.4	3.3	5.6	11.2	15.9	18.3	14.9	11.2	10.1	6.8	4.4	8.7	
Dew point	1.2	-2.9	2.9	3.4	7.6	10.5	12.1	10.6	8.4	8.7	6.1	3.8	6.0	
No. of days with ground frost	20	26	20	22	3	1	0	1	13	3	9	19	137	
RADIATION														
Sunshine (h per month)	65	59	123	110	185	214	193	133	173	104	75	48	1482	
Difference from average	+14	-3	+16	-22	+1	+21	+17	-29	+38	+4	+13	+3	+73	
Mean daily radiation (MJ m ⁻² day ⁻¹)	2.9	5.1	8.8	11.4	16.4	19.6	17.3	16.7	11.6	6.2	3.3	2.1	10.1	
WIND (km day ⁻¹)														
Wind run at 2 m	298	173	268	197	272	174	161	158	112	194	248	275	211	
WATER (mm per month)														
Rainfall (5 inch gauge)	81	26	59	77	68	16	48	103	29	75	68	67	717	
Difference from average	+27	-16	+9	+32	+18	-39	-3	+37	-25	+22	+9	+9	+80	
Rain days	22	9	18	20	19	10	14	11	4	14	19	19	179	

NOTE ON THE TABLE

Averages are for 30 years, 1951-80.

BROOM'S BARN WEATHER 1985-86

Latitude 52° 16' N; Longitude 0° 34' E; Altitude 75 m

	1986												1985			
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
TEMPERATURE (°C)																
Mean screen maximum	15.1	6.6	8.6	5.8	0.4	8.6	9.6	16.0	19.9	20.9	18.5	16.3	15.1	10.6	8.4	12.5
Difference from average	+0.9	-2.6	+1.9	-0.3	-5.8	-0.4	-2.0	+0.4	+0.8	-0.1	-2.7	-2.0	+0.8	+1.4	+1.7	-0.7
Mean screen minimum	7.4	1.0	4.7	0.6	-3.5	1.2	2.6	7.4	9.7	12.0	10.3	7.1	7.6	4.8	2.9	5.2
Difference from average	0.0	-2.6	+2.9	+0.2	-4.4	-0.9	-0.9	+0.8	0.0	+0.4	-1.4	-3.0	+0.2	+1.2	+1.1	-0.6
Soil at 10 cm	10.2	3.4	5.8	2.2	-0.1	3.1	5.7	11.9	15.8	18.2	14.9	11.2	10.3	6.5	4.0	8.7
Dew point	8.8	1.4	5.2	0.8	-3.3	2.4	3.3	7.6	10.2	12.1	10.2	8.5	9.1	5.7	3.0	5.8
No. of days with ground frost	9	19	4	20	26	20	10	0	1	0	0	2	1	5	15	100
Difference from average	+6	+11	-9	+6	+11	+8	+1	-2	+1	0	0	+2	-2	-3	+2	+24
RADIATION																
Sunshine (h per month ⁻¹)	132	103	35	72	63	132	138	219	243	186	155	174	127	70	61	1640
Difference from average	+23	+35	-14	+21	+1	+26	-6	+29	+42	+2	-22	+29	+18	+2	+12	+154
Mean daily radiation (MJ m ⁻² day ⁻¹)	6.4	3.7	1.7	2.6	4.9	8.5	11.6	16.5	19.9	16.5	13.1	11.6	6.5	3.3	1.9	9.5
Difference from average	+0.3	+0.7	-0.1	+0.3	+0.6	+0.2	-1.1	-1.3	+1.0	0.0	-1.0	+2.0	+0.4	+0.3	+0.1	-0.1
Mean daily diffuse radiation (MJ m ⁻² day ⁻¹)	3.2	1.7	1.3	1.5	2.8	4.6	5.9	8.7	8.9	10.3	8.1	5.8	3.7	2.1	1.2	5.3
WIND (km day ⁻¹)																
Wind run at 2 m	124	167	249	283	258	249	192	253	205	139	164	119	188	230	269	213
Difference from average	-73	-72	+1	+30	+25	-2	-37	+48	+22	-34	-8	-74	-9	-9	+21	-1
WATER (mm per month ⁻¹)																
Rainfall (5 inch gauge)	13	42	72	57	12	57	55	42	23	64	87	25	80	67	71	640
Difference from average	-39	-20	+18	+9	-24	+14	+13	-11	-30	+21	+36	-31	+28	+5	+17	+47
Rain days	7	15	19	19	7	20	20	18	8	14	15	4	15	20	17	177
Difference from average	-6	-2	+2	0	-7	+4	+6	+4	-3	+4	+3	-8	+2	+3	0	+9
Open water evaporation Class 'A' pan	39	20	14	20	19	43	52	91	135	103	98	64	41	21	19	707
Difference from average	0	0	+4	+11	+2	+3	-15	-16	+9	-28	-27	-22	+2	+1	+9	-70
Potential transpiration	18	2	2	4	10	29	44	84	106	92	73	44	21	7	5	519

NOTES ON THE TABLE

1. Except for potential transpiration, all quantities are measured.
2. Long term averages are 1965-84 except evaporation—1970-84, wind 1969-84.