

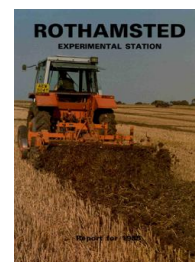
Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Rothamsted Experimental Station Report for 1985

[Full Table of Content](#)



Weather Tables

Rothamsted Research

Rothamsted Research (1986) *Weather Tables* ; Rothamsted Experimental Station Report For 1985, pp 285 - 289 - DOI: <https://doi.org/10.23637/ERADOC-1-26>

WEATHER TABLES

ROTHAMSTED WEATHER 1984-85

Latitude 51° 48' 30" N; Longitude 0° 21' 10" W; Altitude 128 m

	1985												1984	
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year	
TEMPERATURE (°C)														
Mean screen maximum	2.7	4.7	7.9	12.3	14.5	17.0	21.0	19.0	19.0	14.5	6.5	8.5	12.3	
Difference from average	-2.8	-1.3	-1.0	+0.3	-1.3	-2.0	+0.5	-1.4	+1.1	+0.6	-2.5	+1.7	-0.7	
Mean screen minimum	-2.7	-1.3	0.6	4.1	6.4	8.1	10.9	10.3	9.7	7.4	0.4	4.1	4.8	
Difference from average	-2.8	-1.5	-0.8	+0.7	+0.1	-0.9	0.0	-0.6	+0.5	+0.9	-2.5	+2.8	-0.3	
Soil at 10 cm	1.0	2.5	3.1	7.5	10.6	13.5	17.0	14.2	13.7	10.3	3.9	5.9	8.6	
Dew point	-1.9	-1.4	2.2	4.4	7.1	9.3	12.7	11.5	11.7	8.7	1.6	5.1	5.9	
No. of days with ground frost	29	24	23	11	10	3	0	0	1	12	22	13	148	
RADIATION														
Sunshine (h per month)	43	82	98	144	163	165	221	181	134	110	81	38	1460	
Difference from average	-7	+20	-10	+4	-26	-32	+41	+14	-7	+10	+19	-7	+19	
Mean daily radiation (MJ m ⁻² day ⁻¹)	2.4	5.4	7.7	12.6	13.7	16.7	17.9	13.7	10.8	6.1	3.5	1.6	112.1	
Difference from average	+0.2	+1.4	+0.2	+0.9	-1.9	-0.8	+2.1	+0.5	+1.0	+0.5	+0.7	-0.1	+4.7	
WIND (km day ⁻¹)														
Wind run at 2 m	233	220	207	275	189	167	135	187	151	133	219	249	197	
WATER (mm per month)														
Rainfall (5 inch walled gauge)	58	29	38	31	49	102	48	63	18	22	51	108	617	
Difference from average	-5	-23	-14	-17	-2	+44	-3	+2	-41	-37	-19	+39	-76	
Rain days	17	6	17	14	11	18	14	19	7	8	17	20	168	
Drainage through 50 cm bare undisturbed soil	54	55	22	8	10	48	0	16	0	0	11	95	319	
Open water (tank) evaporation	3	3	19	55	65	86	111	87	84	48	19	10	590	
Potential evaporation	4	13	24	60	65	83	92	71	49	19	5	0	485	

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 1956-84.

WOBURN WEATHER 1984-85
Latitude 52° 1' 5" N; Longitude 0° 35' 35" W; Altitude 89 m

	1985												1984
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
TEMPERATURE (°C)													
Mean screen maximum	3.3	5.0	8.5	12.7	15.1	17.2	21.2	19.1	19.4	14.8	6.9	9.0	12.7
Difference from average	-2.6	-1.3	-0.6	+0.6	-0.7	-1.9	+0.5	-1.2	+1.4	+0.8	-2.3	+2.0	-0.4
Mean screen minimum	-2.8	-2.4	-0.8	4.2	5.9	8.0	11.2	11.1	10.0	6.9	0.3	4.5	4.8
Difference from average	-3.3	-2.8	-0.7	+0.9	-0.3	-0.9	+0.3	+0.3	+0.9	+0.4	-2.9	+3.0	-0.4
Soil at 10 cm	1.4	2.2	3.6	8.0	11.1	13.9	17.3	14.8	13.9	10.8	4.3	6.2	8.9
Dew point	1.1	-1.1	2.5	4.5	7.5	9.0	12.5	12.2	13.0	8.6	2.8	5.4	6.5
No. of days with ground frost	29	24	23	9	12	6	0	0	2	11	20	8	144
RADIATION													
Sunshine (h per month)	36	68	105	130	148	158	212	171	138	102	78	30	1376
Difference from average	-14	+7	-2	-2	-35	-34	+36	+9	+2	+2	+16	-15	-30
Mean daily radiation (MJ m ⁻² day ⁻¹)	2.7	5.4	8.3	13.4	14.5	N/A	N/A	13.7	10.6	6.4	3.7	2.0	—
WIND (km day⁻¹)													
Wind run at 2 m	188	160	198	253	154	185	172	241	173	118	175	270	191
WATER (mm per month)													
Rainfall (5 inch gauge)	49	20	36	21	71	117	77	50	23	29	43	102	638
Difference from average	-5	-22	-13	-24	+21	+62	+26	-17	-31	-24	-16	+44	+1
Rain days	14	6	17	16	11	20	14	17	6	10	17	18	166

NOTE ON THE TABLE

Averages are for 30 years, 1951-80.

SAXMUNDHAM WEATHER 1984-85
Latitude 52° 13' N; Longitude 1° 28' E; Altitude 37 m

	1985												1984		Year
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec			
TEMPERATURE (°C)															
Mean screen maximum	3.6	3.9	6.6	10.3	13.9	16.1	21.4	19.7	19.1	14.8	9.1	14.3	12.7		
Difference from average	-2.9	-2.5	-1.8	-0.6	-0.5	-2.3	+0.7	-1.3	+0.7	+0.7	-0.6	+7.2	-0.3		
Mean screen minimum	-1.9	-0.2	1.6	5.0	6.6	8.6	12.1	10.9	10.7	8.4	1.8	5.2	5.7		
Difference from average	-3.6	-1.5	-0.8	+1.6	-0.2	-1.0	+0.4	-1.1	+0.4	+1.0	-2.4	+2.9	-0.4		
Soil at 10 cm	2.3	2.6	3.5	8.6	11.4	14.6	18.8	15.5	14.8	11.6	5.1	6.4	9.6		
Dew point	1.1	0.6	1.7	3.9	8.3	8.9	12.8	12.8	11.7	8.9	3.9	6.7	6.8		
No. of days with ground frost	29	22	11	3	5	2	0	0	1	7	8	7	95		
RADIATION															
Mean daily radiation (MJ m ⁻² day ⁻¹)	2.1	4.6	7.1	6.3	12.5	14.9	16.3	12.7	8.4	5.5	3.0	1.3	7.9		
WIND (km day ⁻¹)															
Wind run at 2 m	309	261	263	302	231	185	183	236	188	204	275	316	246		
WATER (mm per month)															
Rainfall (5 inch gauge)	90	25	50	58	53	116	43	67	14	13	41	62	632		
Difference from average	+30	-18	+2	+19	+10	+72	-7	+26	-53	-38	-28	+7	+21		
Rain days	21	9	20	17	14	26	13	18	7	9	13	20	187		
Open water (tank) evaporation	—	—	—	66	75	86	104	93	29	37	11	—	—		

NOTES ON THE TABLE

1. All quantities are measured.
2. Temperatures are measured in °F.
3. Radiation is measured with a Kipp Solarimeter.
4. Rain and evaporation are measured in inches.
5. Evaporation is the mean of two open water tanks. They are 56 cm diameter, 30 cm deep and set 15 cm in the ground. Water level is about 6 cm below the rim.
6. Long period averages are for different periods: air temperatures 1969-84; rain 1968-84.

BROOM'S BARN WEATHER 1984-85
Latitude 52° 16' N; Longitude 0° 34' E; Altitude 75 m

	1985												1984			
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
TEMPERATURE (°C)																
Mean screen maximum	14.9	10.6	7.9	2.8	4.2	8.0	12.6	14.6	16.8	21.2	19.7	19.6	15.1	6.6	8.6	12.5
Difference from average	+0.7	+1.4	+1.3	-3.3	-2.0	-1.0	+1.0	-1.0	-2.3	+0.2	-1.5	+1.3	+0.8	-2.6	+1.9	-0.7
Mean screen minimum	8.6	6.1	2.9	-2.9	-1.5	1.2	4.7	6.8	8.5	12.1	10.9	10.7	7.4	1.0	4.7	5.3
Difference from average	+1.4	+2.6	+1.2	-3.3	-2.4	-0.9	+1.2	+0.2	-1.2	+0.5	-0.8	+0.6	0.0	-2.6	+2.9	-0.5
Soil at 10 cm	10.3	7.5	4.2	0.9	1.2	3.2	8.1	11.2	14.2	18.6	15.1	14.1	10.2	3.4	5.8	8.8
Dew point	8.9	6.6	3.7	-1.2	-0.9	2.2	4.8	7.9	9.3	12.9	11.6	12.0	8.8	1.4	5.2	6.2
No. of days with ground frost	1	2	13	26	21	18	5	3	0	0	0	0	9	19	4	105
RADIATION																
Sunshine (h per month)	115	53	79	43	89	95	147	145	163	233	183	137	132	103	35	1504
Difference from average	+6	-15	+32	-8	+27	-11	+3	-45	-38	+49	+6	-8	+23	+35	-14	+19
Mean daily radiation (MJ m ⁻² day ⁻¹)	6.39	2.67	2.13	2.63	5.22	7.86	12.86	13.89	16.91	18.14	13.86	10.25	6.40	3.70	1.70	9.48
Mean daily diffuse radiation (MJ m ⁻² day ⁻¹)	3.58	1.82	1.22	1.80	3.36	5.25	7.50	8.10	8.88	9.15	8.17	6.05	3.18	1.65	1.26	5.36
WIND (km day ⁻¹)																
Wind run at 2 m	209	200	174	180	222	180	229	174	166	160	215	167	124	167	248	186
Difference from average	+13	-41	-79	-74	-13	-71	0	-31	-17	-13	+43	-26	-73	-72	-5	-29
WATER (mm per month)																
Rainfall (5 inch gauge)	57	75	39	47	9	49	34	62	87	39	50	15	13	42	72	519
Difference from average	+7	+15	-14	-1	-26	+6	-8	+9	+35	-4	-1	-41	-39	-20	+18	-74
Rain days	12	16	19	20	5	22	14	14	21	16	16	9	7	15	19	178
Open water evaporation sunken tank	37	18	12	6	7	22	59	65	83	114	90	68	39	20	14	590
Difference from average	0	-1	+2	-3	-9	-15	-4	-36	-36	-10	-28	-13	+2	+1	+4	-143
Open water evaporation Class 'A' pan	42	17	10	2	4	24	73	74	86	119	102	79	40	21	19	643
Potential transpiration	26	5	0	1	11	26	60	65	85	99	77	51	18	2	2	497

NOTES ON THE TABLE

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