

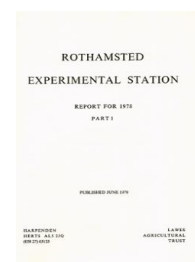
Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Report for 1978 - Part 1

[Full Table of Content](#)



Weather Tables Rothamsted; Woburn; Broom's Barn; Saxmundham

Rothamsted Research

Rothamsted Research (1979) *Weather Tables Rothamsted; Woburn; Broom's Barn; Saxmundham* ;
Report For 1978 - Part 1, pp 325 - 329 - DOI: <https://doi.org/10.23637/ERADOC-1-135>

WEATHER TABLES

ROTHAMSTED WEATHER 1977-78

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

	Temperature (°C)					Radiation		Wind Run at 2 m km day ⁻¹	Water (mm)				
	Mean maximum	Mean minimum	Soil at 10 cm	Dew- point	Ground frosts	Sunshine hours	mWh cm ⁻² day ⁻¹		Rain	Rain days	Evaporation		
								Drainage bare soil			Open Pot. water trans.		
1977													
October	15.2	7.9	10.3	9.3	1	106	177	161	49	17	18	31	21
November	9.0	3.3	5.2	3.7	15	88	106	328	60	19	40	21	12
December	8.1	3.0	4.7	3.7	11	42	49	242	60	19	55	7	4
1978													
January	5.3 (-0.4)	-0.5 (-0.7)	2.3	0.8	23	44 (-7)	61	243	103 (+41)	19	92	9	4
February	5.0 (-1.5)	-0.2 (-0.7)	1.9	0.2	21	53 (-14)	117	248	58 (+6)	15	48	3	13
March	10.3 (+1.2)	2.6 (+1.3)	4.7	3.7	18	122 (+6)	245	302	77 (+32)	21	46	27	37
April	9.8 (-2.3)	2.5 (-0.7)	5.5	3.0	15	110 (-41)	291	257	57 (+12)	16	27	39	46
May	15.9 (0.0)	6.2 (0.0)	11.2	7.0	5	205 (+11)	463	180	66 (+16)	11	47	79	81
June	18.1 (-0.8)	8.8 (-0.4)	14.4	9.3	1	161 (-43)	441	110	84 (+29)	13	14	88	90
July	18.9 (-1.7)	10.4 (-0.7)	15.4	11.1	0	146 (-46)	411	161	59 (+6)	12	17	84	85
August	19.7 (-0.7)	10.3 (-0.6)	15.2	11.0	1	166 (-14)	375	141	35 (-28)	13	9	88	71
September	18.9 (+1.2)	9.5 (+0.4)	13.3	10.0	1	156 (+12)	303	226	30 (-31)	9	Trace	81	59
October	15.7 (+2.4)	7.4 (+1.6)	10.0	9.0	8	102 (-1)	171	158	5 (-56)	8	—	41	23
November	11.2 (+2.3)	4.8 (+2.1)	7.3	6.1	10	87 (+25)	106	239	21 (-52)	10	—	17	9
December	6.4 (-0.1)	1.1 (+0.1)	3.5	2.2	17	36 (-9)	50	253	128 (+64)	23	108	5	1
Total or mean	12.9 (-0.1)	5.2 (+0.1)	8.7	6.1	120	1388 (-121)	253	210	723 (+39)	176	408	561	519

NOTES ON THE TABLE

1. Except for the last column, all quantities are measured.
2. Drainage and evaporation are measured in inches.
3. Drainage is through 50 cm bare undisturbed soil.
4. Departures from long-period averages (in brackets) are for different periods; Air temperatures 1878-1977; Sunshine 1882-1977; Rain 1948-77.

WOBURN WEATHER 1977-78

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

	Temperature (°C)					Radiation Sunshine hours	Wind Run at 2 m km day ⁻¹	Water	
	Mean maximum	Mean minimum	Soil at 10 cm	Dew- point	Ground frosts			Rain (mm)	Rain days
1977									
October	15.5	7.5	10.4	9.6	5	107	188	28	10
November	9.3	3.2	5.5	3.8	13	83	297	57	18
December	8.4	3.1	4.8	3.8	14	40	224	59	17
1978									
January	5.4 (-0.6)	-0.6 (-1.1)	2.4	0.9	21	40 (-10)	250	71 (+17)	19
February	5.3 (-1.2)	-0.5 (-1.0)	2.1	2.1	21	47 (-18)	200	53 (+12)	18
March	10.5 (+1.1)	2.7 (+1.3)	4.8	4.3	17	113 (-2)	306	65 (+22)	22
April	10.1 (-2.4)	2.3 (-1.2)	6.0	3.3	17	102 (-40)	200	50 (+5)	16
May	15.8 (-0.2)	5.7 (-0.4)	11.3	7.9	8	190 (+7)	134	54 (0.0)	9
June	18.4 (-0.9)	8.6 (-0.5)	15.3	10.3	2	151 (-49)	178	54 (+4)	13
July	19.3 (-1.6)	10.6 (-0.6)	15.9	11.9	0	131 (-50)	187	64 (+11)	11
August	19.7 (-1.1)	10.0 (-0.9)	15.7	12.8	1	143 (-29)	146	44 (-17)	12
September	18.9 (+0.9)	10.0 (+0.8)	13.5	11.6	3	146 (+12)	254	30 (-23)	9
October	15.8 (+2.0)	7.2 (+1.0)	9.9	9.5	7	83 (-18)	151	3 (-51)	5
November	11.4 (+2.2)	4.6 (+1.4)	7.3	6.0	9	77 (+16)	245	26 (-38)	7
December	6.5 (-0.2)	1.0 (-0.3)	3.7	2.3	15	27 (-17)	212	107 (+55)	22
Total or mean	13.1 (-0.2)	5.1 (-0.1)	9.0	6.9	121	1250 (-198)	220	621 (-3)	163

NOTES ON THE TABLE

1. Standard long period mean is 1930-76. Departures are in brackets.

BROOM'S BARN WEATHER 1977-78
 Latitude 52° 16' N; Longitude 0° 34' E; Altitude 75 m

	Temperature (°C)					Radiation		Wind Run at 2 m km day ⁻¹	Water (mm)			
	Mean maximum	Mean minimum	Soil at 10 cm	Dew- point	Ground frosts	Sunshine hours	mWh cm ⁻² day ⁻¹		Rain- fall	Rain days	Evaporation	
											Open water	Pot. trans.
1977												
October	16.0	8.6	10.6	9.7	0	143	162	201	13	11	37	17
November	9.2	3.9	5.3	3.6	11	91	86	312	61	18	29	9
December	8.4	3.9	4.6	3.9	8	63	46	276	54	16	13	2
1978												
January	5.2 (-1.0)	0.5 (-1.0)	2.1	0.8	17	35 (-11)	44	254	73 (+28)	20	—	4
February	4.6 (-1.9)	-0.3 (-1.4)	1.9	0.7	15	56 (-5)	109	234	39 (+4)	19	—	12
March	10.2 (+1.5)	3.1 (+1.2)	4.4	3.5	13	116 (+3)	196	297	75 (+41)	22	—	32
April	9.8 (-1.8)	2.8 (-0.9)	5.8	3.0	11	115 (-26)	251	233	37 (-7)	12	48	41
May	15.7 (-0.3)	6.3 (-0.6)	11.3	7.5	1	196 (+3)	407	178	69 (+26)	8	88	69
June	18.2 (-1.1)	9.6 (+0.1)	15.4	9.6	0	169 (-46)	406	180	88 (+38)	14	116	79
July	18.7 (-2.3)	10.8 (-0.8)	15.5	11.6	0	122 (-66)	323	164	55 (+10)	15	84	66
August	19.7 (-1.4)	11.0 (-0.5)	15.3	11.6	0	153 (-27)	307	157	55 (+1)	13	96	58
September	18.6 (+0.4)	10.7 (+0.9)	13.4	10.2	0	159 (+14)	251	252	34 (-20)	9	101	51
October	15.3 (+1.0)	8.5 (+1.2)	10.3	9.3	0	95 (-11)	136	164	8 (-36)	10	33	18
November	11.1 (+2.2)	5.4 (+2.3)	7.3	5.6	6	96 (+25)	87	248	17 (-50)	9	—	7
December	6.4 (-0.3)	1.8 (0.0)	3.5	2.5	12	39 (-7)	40	247	90 (+38)	21	—	1
Total or mean	12.8 (-0.4)	5.9 (+0.1)	8.9	6.3	75	1351 (-154)	213	217	640 (+73)	172	—	438

NOTES ON THE TABLE

1. Except for the last column, all quantities are measured.
2. Departures from long-period average are for different periods.
3. Air temperature and rainfall, 1964-77, Sunshine 1965-77.

SAXMUNDHAM WEATHER 1978

Latitude 52° 13' N; Longitude 1° 28' E; Altitude 37 m

	Temperature (°C)				Radiation mWh cm ⁻² day ⁻¹	Wind Run at 2 m km day ⁻¹	Water (mm)			Accumulated Day-degrees F	
	Mean air	Soil at 10 cm	Dew- point	Ground frosts			Rain	Rain days	Evaporation open water	A	B
January	3.4 (-1.0)	2.4	1.7	18	48	333	63 (+5)	14	—	15	134
February	2.6 (-1.2)	2.5	1.7	17	105	322	41 (-1)	11	—	47	313
March	6.6 (+1.4)	5.3	4.4	14	211	354	73 (+35)	18	—	156	362
April	6.3 (-0.9)	7.1	4.4	15	272	298	44 (+10)	11	50	245	412
May	10.8 (0.0)	11.4	8.3	2	433	220	17 (-23)	5	90	541	415
June	13.9 (0.0)	15.5	13.3	1	455	204	81 (+46)	11	91	988	416
July	14.8 (-1.2)	15.5	13.9	0	367	179	38 (-18)	10	78	1502	416
August	15.4 (-0.9)	15.5	13.3	0	331	177	33 (-15)	13	76	2051	416
September	14.2 (+0.3)	13.5	11.7	2	282	264	39 (-36)	9	67	2516	417
October	11.9 (+1.0)	11.3	8.9	2	145	191	8 (-34)	4	27	2870	419
November	8.8 (+2.5)	8.3	3.9	8	82	293	20 (-62)	6	20	3088	463
December	4.6 (0.0)	4.8	1.7	12	41	320	120 (+77)	12	—	3147	565
Total	—	—	—	91	—	—	577 (-16)	124	—	—	—
Mean	9.4 (0.0)	9.4	7.3	—	231	263	—	—	—	—	—

NOTES ON THE TABLE

1. Except for the last two columns all quantities are measured.
2. Temperatures were measured in °F.
3. 'Soil at 10 cm' and 'Dewpoint' are at 0900 GMT.
4. Radiation was measured with a Kipp Solarimeter.
5. Rain and evaporation were measured in inches.
6. 'Evaporation' is the mean of two open water tanks installed on 30 March 1978. They are 56 cm diameter, 30 cm deep and set 15 cm in the ground. Water level is about 6 cm below the rim.
7. Calculated values of accumulated temperature are: A. Day-degrees above 42°F. B. Day-degrees below 42°F.
8. Deviations from 10-year-mean shown in brackets.