

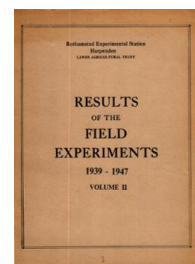
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# Yields of the Field Experiments 1939-1947 Volume 2

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## Z/1 Meteorological Records - Rothamsted

### Rothamsted Research

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Z/1.1

METEOROLOGICAL RECORDS

Rothamsted, 1939-47

	Total hours of sunshine	Mean Temperature (°F)		Ground Frosts <sup>(2)</sup>	Rainfall		Drainage through 20 in. soil (in.)
		Air <sup>(1)</sup>	1 foot in ground		total <sup>(3)</sup> (in.)	Rain days <sup>(4)</sup>	
1939							
Jan.	46	39.0	38.4	10	55.72	23	5.43
Feb.	106	41.1	39.1	13	0.95	13	0.15
Mar.	96	40.9	40.4	9	1.74	14	0.51
Apr.	165	46.7	46.2	10	2.91	14	1.37
May	159	50.7	50.9	3	1.83	7	1.12
June	205	56.5	57.5	0	2.07	12	0.13
July	158	59.3	59.5	0	2.14	18	0.23
Aug.	152	60.9	61.1	0	3.22	13	1.28
Sept.	142	57.9	59.2	0	1.42	9	0.37
Oct.	90	46.4	48.6	5	4.72	21	2.87
Nov.	38	46.9	46.0	3	4.49	20	3.85
Dec.	44	36.0	39.3	18	1.50	11	1.06
Year	1400	48.5	48.8	71	32.71	175	18.39
1940							
Jan.	87	28.5	32.5	27	4.01	10	0.37
Feb.	22	34.7	33.8	14	1.86	18	3.55
Mar.	127	41.6	39.9	13	2.75	14	1.66
Apr.	124	47.1	45.5	11	1.82	16	0.07
May	225	53.9	54.1	5	2.01	12	0.30
June	270	60.5	60.9	0	0.89	5	-
July	190	58.5	60.1	0	2.39	16	0.03
Aug.	191	60.0	60.5	0	0.22	2	-
Sept.	171	55.1	55.9	1	1.16	9	-
Oct.	94	48.6	49.0	3	3.40	17	1.46
Nov.	77	43.2	43.1	9	7.86	20	7.23
Dec.	41	37.5	37.4	17	1.49	13	1.02
Year	1616	47.4	47.7	100	29.87	152	15.70

(1) Mean of Maximum and Minimum Temperatures

(2) Number of nights grass minimum was 30°F or less

(3) Area of rain gauge, 1/1000 acre

(4) Number of days rainfall was 0.01 inches or more

Meteorological Records - Rothamsted  
Z/1.2

	Total hours of sunshine	Mean Temperature (°F)		Ground Frosts	Rainfall		Drainage through 20 in. soil (in.)
		Air	1 foot in ground		total (in)	Rain days	
1941							
Jan.	41	32.4	34.8	18	2.46	18	2.41
Feb.	61	37.6	36.2	16	2.52	17	2.02
Mar.	109	40.5	39.7	15	2.92	12	1.99
Apr.	96	43.4	42.7	10	1.50	8	0.62
May	131	47.4	47.7	12	2.15	10	0.65
June	201	58.7	58.1	0	1.23	7	0.50
July	226	63.4	64.6	0	5.42	14	2.27
Aug.	166	57.7	59.3	0	4.42	24	1.89
Sept.	105	57.7	58.3	0	0.70	3	-
Oct.	108	49.7	51.6	5	1.09	15	0.20
Nov.	37	42.6	43.5	9	2.73	17	1.85
Dec.	48	40.4	41.7	16	1.51	12	1.21
Year	1330	47.6	48.2	101	28.64	157	15.61
1942							
Jan.	43	31.6	35.0	23	3.02	16	1.17
Feb.	39	30.8	32.7	25	0.84	6	1.07
Mar.	73	40.3	37.7	17	1.68	11	1.44
Apr.	221	47.9	46.1	4	1.65	8	0.69
May	194	51.5	51.8	4	2.96	13	0.36
June	226	57.9	58.8	1	0.30	2	-
July	155	60.0	60.2	0	2.30	14	0.01
Aug.	147	61.6	61.0	0	2.46	19	0.33
Sept.	121	56.7	57.8	0	1.45	12	-
Oct.	85	51.0	51.6	2	4.01	19	2.48
Nov.	67	40.6	42.7	14	1.40	12	1.12
Dec.	44	42.5	42.7	10	3.11	23	2.50
Year	1416	47.7	48.2	100	25.18	155	11.18
1943							
Jan.	49	40.0	38.6	12	4.93	23	4.61
Feb.	79	41.1	40.4	14	1.18	10	1.01
Mar.	137	43.3	41.6	20	0.62	6	-
Apr.	156	51.0	49.0	4	1.09	14	-
May	245	54.0	54.1	3	2.54	10	0.70
June	207	57.4	59.6	0	1.55	10	0.01
July	193	61.2	61.4	0	1.60	10	-
Aug.	176	61.2	61.5	0	2.24	17	-
Sept.	146	55.9	57.1	1	1.96	12	0.27
Oct.	95	51.1	51.8	0	3.42	18	2.21
Nov.	75	41.8	43.5	12	1.48	20	0.88
Dec.	54	37.5	38.2	14	1.58	13	1.37
Year	1612	49.6	49.7	80	24.17	163	11.06

Z/1.3

	Total hours of sunshine	Mean Temperature (°F)		Ground Frosts	Rainfall		Drainage through 20 in. soil (in.)
		Air	1 foot in ground		total (in.)	Rain days	
1944							
Jan.	47	40.9	40.1	13	1.64	12	1.20
Feb.	51	36.8	38.1	17	1.13	17	0.34
Mar.	112	40.1	38.9	22	0.21	8	-
Apr.	137	49.4	47.9	4	2.06	9	0.87
May	230	52.0	52.5	8	0.71	5	-
June	172	55.9	57.4	1	1.76	14	-
July	118	61.7	61.3	0	1.58	12	0.02
Aug.	197	63.8	63.3	0	2.89	13	0.93
Sept.	139	54.4	56.2	1	2.74	14	1.09
Oct.	89	48.3	49.9	1	3.70	19	2.41
Nov.	58	42.6	43.2	14	3.75	21	3.17
Dec.	67	36.8	38.8	18	1.78	16	1.42
Year	1418	48.6	49.0	99	23.92	160	11.44
1945							
Jan.	49	31.4	33.9	26	2.32	18	1.87
Feb.	70	44.0	40.6	8	2.11	13	2.00
Mar.	152	45.6	43.4	13	0.68	8	-
Apr.	180	49.8	49.8	7	1.36	12	-
May	168	54.0	54.0	3	2.31	12	0.44
June	201	57.7	59.2	0	2.29	16	0.11
July	181	61.5	61.8	0	2.83	10	1.35
Aug.	147	60.1	60.4	0	1.38	11	-
Sept.	66	57.7	57.3	0	2.24	12	0.29
Oct.	106	52.5	52.3	1	3.00	11	1.99
Nov.	41	44.3	45.6	5	0.40	9	0.07
Dec.	50	39.4	40.3	16	3.23	17	2.79
Year	1411	49.9	49.9	79	24.15	149	10.91
1946							
Jan.	65	36.7	36.9	21	2.52	11	2.03
Feb.	79	42.1	40.9	7	2.81	19	1.99
Mar.	99	39.9	38.6	20	1.58	6	1.00
Apr.	204	48.9	48.5	11	1.06	8	-
May	168	49.1	50.8	3	2.49	15	0.51
June	155	55.6	55.6	0	2.65	21	0.33
July	218	61.3	63.0	0	2.21	10	0.32
Aug.	151	58.4	59.6	0	3.97	21	1.39
Sept.	110	56.9	56.2	0	3.85	18	2.27
Oct.	85	49.5	51.3	4	1.58	12	0.40
Nov.	42	45.3	45.5	3	5.73	20	5.29
Dec.	73	35.5	37.8	24	2.25	20	2.03
Year	1449	48.4	48.7	93	32.70	181	17.56

Meteorological Records - Rothamsted

Z/1.4

	Total hours of sunshine	Mean Temperature (°F)		Ground Frosts	Rainfall		Drainage through 20 in. soil (in.)
		Air	1 foot in ground		total (in.)	Rain days	
1947							
Jan.	71	33.9	36.2	24	1.63	16	1.50
Feb.	34	27.1	33.1	26	1.75	11	0.02
Mar.	69	38.7	36.2	15	5.10	25	4.47
Apr.	162	47.3	45.3	6	2.21	14	0.65
May	186	56.1	53.1	0	1.26	12	0.23
June	202	59.9	61.1	0	2.49	12	0.25
July	158	63.1	62.9	0	1.62	13	0.18
Aug.	271	65.5	66.9	0	0.09	5	-
Sept.	164	59.5	60.9	0	1.44	10	-
Oct.	107	50.5	52.2	3	0.10	8	-
Nov.	74	43.9	45.3	10	1.21	19	-
Dec.	27	40.7	40.9	8	3.18	22	2.35
Year	1523	49.2	49.5	92	22.08	166	9.65

Averages\*  
for

	46 years	61 years	86 years
Jan.	52	37.6	2.46
Feb.	70	38.5	1.91
Mar.	119	41.2	1.92
Apr.	153	45.4	1.98
May	199	51.9	2.15
June	204	57.2	2.24
July	199	60.7	2.59
Aug.	188	60.1	2.57
Sept.	150	55.8	2.43
Oct.	106	48.7	3.03
Nov.	64	42.2	2.71
Dec.	44	38.5	2.64
Year	1549	48.1	28.64

\*For period ending in 1938