

West Malvern

A. H. Hartland.

Worcester

8 in glass + ground 1 ft 6 in

+ Sea level 900 ft

## Severn, Right Bank -- 1

YEAR --	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	MEANS.
January --			2.11	2.99	1.31	1.56	2.08	3.14	2.60	5.39	
February --			1.39	.66	1.61	2.07	2.86	2.23	1.56	3.28	
March ---		<sup>d</sup>	2.55	4.30	1.25	2.64	.91	1.89	4.13	1.27	1.30
April ---			1.23	2.76	1.31	1.37	1.45	1.35	1.89	2.21	1.82
May ----			1.23	4.05	.82	1.43	2.91	.90	3.02	2.15	5.51
June ----			2.17	2.47	4.87	1.38	2.17	3.63	.96	.36	1.16
July ----			4.50	2.21	.92	.86	3.36	1.34	3.21	1.07	5.3
August --			1.01	1.03	2.64	.37	3.41	3.82	2.40	5.47	1.14
September -			2.64	4.34	3.17	3.39	.13	5.33	2.68	2.50	3.21
October --			2.15	3.83	5.25	2.37	4.36	2.99	2.01	2.68	3.96
November -			2.50	.90	2.35	2.47	2.98	1.47	1.85	2.07	1.83
December -			1.89	1.70	1.00	2.96	1.71	1.72	1.07	6.11	4.35
TOTALS -			31.89	27.23	22.36	27.82	29.38	28.59	30.05	33.68	

*1860 1861 1862 1863 1864 1865 1866 1867 1868 1869*  
*10/6 10/5 10/4 10/3 10/2 10/1 10/0 10/9 10/8 10/7*

1869 The return is for 53 weeks - from 27<sup>th</sup> of Dec 1868 to 1<sup>st</sup> of Jan 1870 both included.

RAINFALL AT *Malvern West*

Lat.....

Long.....

County of.....

*Worcester*

Rain Gauge, by.....

Observer.....

*A. H. Hankland Esq.***Severn. Right Bank-- 1**

Diameter.....	.8										
Height.....	1.6										
Altitude.....	850										
YEAR.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.
January.....	1.65	2.51	4.06	3.72	2.72	3.73	2.38	4.18	1.96	2.83	2.974
February.....	2.48	7.06	3.70	1.38	2.98	1.42	2.14	2.28	1.93	3.14	2.252
March.....	1.69	1.51	2.16	2.53	.68	1.06	2.82	2.02	.54	.87	1.588
April.....	.66	3.70	2.02	1.16	2.18	.98	2.86	3.26	3.12	2.95	2.289
May.....	.92	1.11	3.18	2.33	1.52	3.24	.59	2.83	6.30	3.03	2.505
June.....	1.07	6.33	5.34	1.28	1.11	2.74	1.02	.76	2.39	5.22	2.726
July.....	1.13	3.50	3.15	4.77	1.82	7.49	.89	3.51	2.26	3.29	3.181
August.....	1.74	1.66	1.77	2.97	2.26	2.03	2.23	6.39	4.68	6.85	3.258
September.....	1.19	7.53	2.29	2.04	3.75	3.68	5.84	2.32	2.67	3.14	3.445
October.....	3.99	1.64	4.09	2.21	3.06	8.18	2.48	1.33	4.64	2.17	3.379
November.....	3.00	1.24	5.31	1.52	2.70	4.96	4.64	3.79	2.71	.64	3.051
December.....	1.88	1.92	4.34	.67	2.00	.91	7.02	1.37	1.93	.27	2.231
TOTALS.....	21.40	33.71	41.41	26.58	26.78	40.43	34.91	34.04	35.13	34.40	32.899

1879 House 30ft high 40ft distant W.

West Malvern church  $\frac{1}{4}$  mile N.W.

# RAINFALL AT *West Malvern*

80

Lat. \_\_\_\_\_

Lon. \_\_\_\_\_

County of *Worcester*

Rain Gauge, by \_\_\_\_\_

Observer *A. H. Hartland, Esq*

*Series, 2-1.*

Diameter ....	8										
Height .....	1.6										
Altitude ....	600 B										
Year .....	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	MEANS.
January ....	1.29	.63	2.04	4.29	3.18	2.32					
February ....	4.19	3.84	3.05	3.40	1.46	3.29					
March .....	1.08	2.29	1.16	1.14	2.12	1.10					
April .....	2.17	1.09	4.24	1.05	1.80	3.22					
May .....	1.68	1.62	2.20	1.38	1.05	2.54					
June .....	4.41	2.71	2.94	3.14	3.56	2.86					
July .....	6.39	1.63	5.52	2.29	3.18	.33					
August .....	.25	5.11	2.99	2.52	2.33	2.53					
September....	4.22	2.28	2.85	4.33	.94	3.37					
October .....	4.59	2.58	4.94	2.92	1.76	3.90					
November....	2.04	2.80	4.62	3.96	1.28	3.91					
December ....	3.43	3.60	3.12	.78	2.57	.85					
TOTALS ....	35.74	30.38	39.78	31.70	25.73	30.22					

1880. *W. Malvern*

300 yards

NW

House 30ft. high 50ft. W.

Trees 30ft. 50ft. E



RAINFALL at West MalvernCounty of Worcester Observer Edw. W. Osborne Thelf. CERiver Basin 1 - Sever R. Engineer Dunlop MalvernM.O. Rain Gauge, by  
Snowdon sound & correct  
N+Z. Camden measure correct } 1.27

Diameter ...	-	5"										
Height .....	-	1	0									
Altitude ...	-	832										
Year .....	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930 M.M.M.	
January ...	3.67	2.81	4.50	1.27	3.67	1.89	3.53	3.34	4.26	1.20	4.63	
February ...	.95	.25	3.16	5.84	.54	3.02	2.30	2.48	2.23	.69	.72	
March .....	3.42	1.25	2.14	1.82	1.57	.44	.59	2.45	1.22	.08	2.71	
April .....	4.75	1.09	2.55	2.88	2.92	1.82	2.70	1.86	1.37	.97	3.20	
May .....	1.94	1.32	.73	1.85	7.71	3.33	3.73	1.38	1.13	1.81	2.39	
June .....	2.87	.67	.94	.44	2.54	.00	1.39	3.49	2.72	1.78	1.35	
July .....	4.86	.46	5.12	3.19	4.96	3.02	2.54	3.30	1.42	1.94	3.13	
August .....	.81	4.07	3.32	2.09	2.75	2.33	3.14	4.90	2.09	1.48	3.31	
September...	2.80	1.21	2.81	2.04	5.26	4.04	.49	4.77	0.89	.75	4.63	
October .....	2.59	1.66	.35	4.99	5.12	3.06	2.72	2.21	4.99	4.29	2.46	
November...	.96	1.99	1.18	1.35	3.07	1.54	6.92	3.92	2.37	7.87	3.63	
December...	2.53	1.88	3.92	2.64	3.09	3.23	.54	2.20	2.57	5.97	3.54	
TOTALS...	2.15	18.66	30.62	30.40	43.20	27.72	30.59	36.24	29.26	28.83	35.70	
	2	2	2	2	2	2	2	2	2	2	2	

1920 - Monthly Malvern read 4.1.22 - 5.4.22 13.11.22

Inspected 7.5.27 In vegetable garden alongside road, bridge adjoining road to W, house to south + rising ground with bushes etc to E somewhat to N, exposure excellent except that bushes to E tended to over-shelter the gauge. These will be cut down.

1929. House 20 ft. high 50 ft. S.

Position of Station on reduced Ordnance Survey Map, 2 miles to 1 inch Series } No. of Map \_\_\_\_\_ Reference No. \_\_\_\_\_

Date.	Lat. N.	Long. W.	Railway Station.	Distance from gauge	Direction from gauge	Parish Church.	Distance from gauge	Direction from gauge
1921	52° 6' 50"	2° 21' 10"	91: Malvern	1 1/2 mi	W N N W	West Malvern	150 yds	N

RAINFALL at West MalvernCounty of WorcestershireObserver W. Osborne Thorp, Esq., C.E. <sup>left 10/10</sup>River Basin Sewern Right Bank Tribs. IMalvern U.D.C.Type of Gauge M.O.Annual Average 28.9 in. based on 11 years obs. ~~un~~weighted. Period of average 1881-1915 Ref. 3

769025/27

Diameter	5											
Height	1	0										
Altitude	932											
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means	
January	1.45	3.15	2.04	2.61	.76	3.82	3.19	2.78	5.69	3.92		
February	2.20	.11	3.45	.51	2.04	2.64	3.84	.57	0.69	2.73		
March	.21	1.84	2.48	2.21	.76	2.31	2.99	.15	1.27	1.40		
April	3.35	3.61	1.06	2.09	4.28	2.06	1.89	.06	2.25	2.64		
May	4.50	7.33	2.25	1.10	.81	.74	3.17	1.81	1.08	2.30		
June	4.51	1.37	2.38	1.15	3.40	3.81	1.27	1.10	1.93	.53		
July	3.40	2.26	1.97	1.09	.48	4.88	2.83	3.31	6.36	3.40		
August	5.09	3.42	0.68	2.30	1.66	3.7	.56	3.89	2.00	.12		
September	2.27	3.87	2.20	1.98	3.80	3.48	2.15	1.67	0.69	1.04		
October	.93	3.71	4.09	1.41	3.51	1.65	2.71	2.29	3.44	3.95		
November	4.20	1.77	0.67	1.91	5.54	2.46	1.41	2.41	3.89	5.36		
December	1.20	1.31	0.53	5.09	3.56	2.98	1.83	2.75	1.18	1.64		
TOTALS	33.31	33.75	23.80	23.45	30.60	31.20	27.84	22.79	30.67	28.83		
	D.	D.	D.	D.	D.	D.	D.	D.	D.	D.		

1931. House 20' high 50's.

Position of Station on reduced Ordnance Survey Map, } No. of Map..... Reference No.....  
1 mile to 1 inch Series

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction	Parish Church.	Distance from gauge	Direction
1931.			Gt. Malvern	1 3/4 m	E.S.E.	West Malvern	1/2 m	S.

Station No. 2386

RAINFALL at West Malvern

41

County of Worcestershire

Observer Malvern U.D.C.

River Basin Severn-R. Bank-1

(A.T. Hocking Ely.)

Type of Gauge M.D.

Annual Average 28.2 in. based on 11 years obs. un-weighted. Period of average 1881-1916 Ref S

File No. 769025/27

Diameter	5"				4 1/2	1 1/2						
Height	1' 0"					1						
Altitude	832'					41						
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Means	
January	4.25	3.08	5.17	2.13	1.67	2.29	1.85	4.55	36	46		
February	2.64	.88	1.43	.48	1.74	1.62	1.65	1.08	55	3.17		
March	2.92	2.53	1.31	.47	.68	.87	5.99	.67	95	1.23		
April	.93	.91	1.15	1.34	.88	2.36	2.04	1.82	1.23	1.68		
May	2.53	3.33	3.56	.70	2.59	3.33	2.24	2.45	98	1.99		
June	1.68	.11	2.33	1.35	2.98	1.96	1.67	1.94	28	1.88		
July	2.28	1.42	.90	2.22	2.39	1.37	1.79	.39	1.48	2.62		
August	3.31	2.35	1.55	2.73	3.35	5.05	1.08	2.00	1.45	3.62		
September	1.05	1.44	2.29	2.39	1.97	3.70	1.53	1.19	93	3.65		
October	2.53	2.01	2.18	3.26	3.16	.88	.45	2.20	5.13	.90		
November	2.95	1.04	1.63	3.79	.31	3.37	2.02	1.21	1.54	4.64		
December	1.24	3.60	1.59	1.56	3.73	1.96	2.30	1.68	1.17	1.70		
TOTALS	28.21	22.76	25.09	22.72	25.45	28.76	24.61	21.18	16.05	27.54		
	D	D	D	D	D	D	D	D	D	D		

1941 House 20' high 50' S. 1949 6th wall and overhanging bulks 10ft. from g. [position.  
 1945 low. Letter from observer 6.5.49 saying he is installing a new gauge in a more favourable  
 1949 total low: new gauge set up in better site

Position of Station on reduced Ordnance Survey Map, 1 mile to 1 inch Series

No. of Map

Reference No. 32-764 AS9

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction from gauge	Parish Church.	Distance from gauge.	Direction from gauge.
1941			Ely. Malvern.	1 3/4 m.	E. S. E.	West Malvern.	250 y.	S.

BRITISH RAINFALL ORGANIZATION



RAINFALL at West MalvernCounty of Worcestershire

Observer

Malvern V.D.C.River Basin Green-Right Bank-1(C.P. F. Hocking Esq.)

Type of Gauge

M.O.Annual Average 28.9 in. based on 11 years obs. un-weighted. Period of average 1881-1915 Ref. SFile No. 769025/27

Diameter ...	5"				4.46	1.71						
Height ...	1' 0"					1						
Altitude ...	832'					51						
Year ...	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Means	
January ...	2.94	2.30	1.36	1.82	3.27	4.09	1.66					
February ...	3.58	1.49	2.02	2.24	1.96	.55	2.77					
March ...	4.87	2.41	1.09	2.62	2.64	1.25	2.23					
April ...	2.60	2.37	2.58	1.43	1.03	1.96	.20					
May ...	3.73	3.77	3.11	2.08	5.49	.87	1.91					
June ...	.76	2.19	2.25	4.27	5.45	1.56	1.73					
July ...	1.02	.90	3.31	2.58	1.36	3.60	3.60					
August ...	4.20	5.14	3.97	3.97	1.09	3.37						
September ...	2.89	1.28	2.50	1.45	1.47	5.52						
October ...	1.06	5.10	2.33	2.89	1.36	1.20						
November ...	4.67	4.38	1.48	6.39	3.41	.75						
December ...	2.95	2.34	1.46	1.62	3.86	3.22						
TOTALS ...	38.27	32.67	26.46	32.36	32.39	27.94	Inc. n.p.					
	D	D	D	D	D	D						

1951 House 20' high at 50' S.  
 1958. Stn. T. Observer died.

Position of Station on Ordnance One-Inch map :

No. of Map.....

National Grid Reference 32-764459

Date.	Lat. N.	Long.	Railway Station.	Distance Direction from gauge	Parish Church.	Distance Direction from gauge.
1951			Great Malvern	1 3/4 m. E. S. B.	West Malvern	250 ft. S.

Summary of Earlier Records from 10-year Sheets :

Record D, or d	1910-19	1920-30	1931-40	1941-50	1951-60
		C1920 ✓ hict - 20	✓ ✓	✓ n.p. 4349 ✓	