

RAINFALL AT *Grange Nutwood*

70

Lat.....

Lon.....

County of.....

Lancaster

Rain Gauge, by.....

Observer.....

Rev. L. Maffei

Diameter.....							5					
Height.....				2.10	3		2.6		1.6	2.6		
Altitude.....					100							
Year.....	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	MEANS.	
January.....					4.79	6.65	2.38	7.30	4.49	1.88		
February.....					2.18	1.27	4.80	3.71	2.52	2.87		
March.....					3.63	1.04	3.63	3.50	2.25	2.30		
April.....					.96	1.52	2.74	2.20	2.67	1.33		
May.....					.97	2.41	.37	2.75	3.88	1.78		
June.....					1.10	4.84	3.74	2.36	4.77	4.90		
July.....					2.36	2.26	3.59	4.34	.68	6.50		
August.....					7.02	3.55	2.10	5.71	5.86	3.13		
September.....					5.77	5.34	4.57	3.36	4.79	4.31		
October.....					# 9.32	4.32	3.56	6.63	4.58	2.78		
November.....					2.63	4.28	6.13	2.97	7.53	2.44	1.43	
December.....					1.99	3.40	2.48	6.07	5.35	2.37	2.46	
TOTALS.....					45.78	41.82	40.52	54.74	41.30	35.67		

RAINFALL AT *Grange, Nutwood*

80

Lat. _____

Lon. _____ County of *Lancashire*

Rain Gauge, by _____

Observer *Rev. E. Mann*

Kent
7 6 2

Diameter	<i>5</i>										
Height	<i>2.6</i>	<i>2.5</i>						<i>2.6</i>			
Altitude	<i>100</i>							<i>B</i>			
Year	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	MEANS.
January	<i>.57</i>	<i>.59</i>	<i>3.24</i>	<i>6.88</i>	<i>7.04</i>	<i>2.30</i>	<i>4.51</i>	<i>2.99</i>	<i>2.24</i>	<i>3.31</i>	<i>3.361</i>
February	<i>2.98</i>	<i>4.50</i>	<i>3.59</i>	<i>2.31</i>	<i>2.54</i>	<i>4.08</i>	<i>1.68</i>	<i>2.16</i>	<i>1.02</i>	<i>2.89</i>	<i>2.775</i>
March	<i>2.95</i>	<i>5.21</i>	<i>3.87</i>	<i>1.03</i>	<i>3.11</i>	<i>3.29</i>	<i>4.14</i>	<i>2.05</i>	<i>2.69</i>	<i>2.88</i>	<i>3.122</i>
April	<i>1.48</i>	<i>2.17</i>	<i>4.37</i>	<i>2.18</i>	<i>1.06</i>	<i>1.69</i>	<i>2.76</i>	<i>2.07</i>	<i>1.50</i>	<i>2.48</i>	<i>2.176</i>
May	<i>1.94</i>	<i>3.64</i>	<i>2.36</i>	<i>1.48</i>	<i>2.98</i>	<i>1.67</i>	<i>4.46</i>	<i>1.73</i>	<i>1.21</i>	<i>3.53</i>	<i>2.505</i>
June	<i>3.83</i>	<i>4.50</i>	<i>4.17</i>	<i>3.67</i>	<i>1.10</i>	<i>2.06</i>	<i>2.01</i>	<i>.42</i>	<i>1.63</i>	<i>.89</i>	<i>2.428</i>
July	<i>6.24</i>	<i>6.95</i>	<i>4.87</i>	<i>1.62</i>	<i>6.44</i>	<i>3.76</i>	<i>6.88</i>	<i>1.75</i>	<i>6.65</i>	<i>3.21</i>	<i>4.837</i>
August	<i>1.57</i>	<i>6.11</i>	<i>5.18</i>	<i>3.90</i>	<i>1.60</i>	<i>2.79</i>	<i>3.68</i>	<i>2.44</i>	<i>3.35</i>	<i>5.26</i>	<i>3.588</i>
September....	<i>4.60</i>	<i>2.47</i>	<i>2.90</i>	<i>4.50</i>	<i>4.40</i>	<i>5.39</i>	<i>6.39</i>	<i>4.03</i>	<i>1.59</i>	<i>3.19</i>	<i>3.945</i>
October	<i>1.09</i>	<i>2.93</i>	<i>3.88</i>	<i>5.15</i>	<i>3.88</i>	<i>4.43</i>	<i>7.16</i>	<i>2.24</i>	<i>4.18</i>	<i>4.81</i>	<i>3.975</i>
November....	<i>5.99</i>	<i>5.67</i>	<i>6.57</i>	<i>5.41</i>	<i>1.64</i>	<i>3.72</i>	<i>4.93</i>	<i>2.71</i>	<i>5.05</i>	<i>1.90</i>	<i>4.359</i>
December	<i>6.62</i>	<i>4.09</i>	<i>3.19</i>	<i>3.89</i>	<i>4.82</i>	<i>1.95</i>	<i>4.81</i>	<i>3.27</i>	<i>3.22</i>	<i>4.14</i>	<i>4.000</i>
TOTALS	<i>39.80</i>	<i>48.83</i>	<i>48.19</i>	<i>42.02</i>	<i>40.61</i>	<i>37.12</i>	<i>53.41</i>	<i>27.86</i>	<i>34.33</i>	<i>38.54</i>	<i>41.071</i>

RAINFALL AT *Grange Nutwood & Eggerslack*

Lat. _____

Lon. _____

County of _____

Lancashire

Rain Gauge, by _____

Observer _____

Rev E. Massie
Miss Arkwright
Kent & Co 3

Diameter	5										
Height	2 6										
Altitude	100 B								1140		
Year	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	MEANS.
January	6.31	2.95	4.37	1.53	2.72	2.60	3.57	1.11	5.20	5.97	3.623
February ....	.77	.40	1.68	5.76	7.76	.33	3.19	3.28	3.93	3.32	3.042
March	4.71	1.97	1.47	1.42	3.05	3.98	6.55	6.20	1.75	2.27	3.227
April	1.81	2.17	1.67	.77	1.70	2.82	1.78	2.67	3.30	4.80	2.549
May	3.10	1.62	5.19	2.88	3.04	.87	.50	1.98	2.87	4.16	2.621
June	3.46	1.36	2.55	1.17	5.08	2.74	3.57	5.40	3.56	1.47	3.026
July	3.98	3.01	1.68	4.10	2.93	8.43	4.68	1.67	.95	3.47	3.490
August	5.31	8.98	7.82	4.65	4.94	5.31	3.09	5.18	8.99	1.53	5.580
September....	5.03	6.87	4.69	4.14	.50	1.22	6.42	5.15	2.41	6.60	4.303
October	2.94	3.48	4.40	6.01	4.04	6.09	5.59	3.28	5.58	4.20	4.561
November....	6.61	4.90	4.31	2.61	5.10	4.52	1.48	7.59	5.30	4.50	4.692
December ....	.56	7.51	3.16	4.08	4.97	5.47	7.25	6.74	5.63	3.69	4.906
TOTALS ...	44.59	45.22	42.99	39.12	45.83	44.38	47.67	50.25	49.47	45.98	40.550

Gauge moved 100 yards to Eggerslack which is 40ft. higher above sea than Nutwood.

St. Paul's Church Grange 1/2 mile S.W.

RAINFALL AT frange-on-lands Eggardsack
 Lat. Lon. County of Lancashire North
 Rain Gauge, by Casella Observer S.M. M. Arkwright
Kent 3

Diameter ..	5										
Height	2.6					2.3					
Altitude ..	140 B										
Year	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	MEAN.
January ..	6.02	2.97	3.34	4.98	5.85	2.48	6.66	2.77	5.61	2.85	4.353
February ..	4.12	1.22	1.78	3.77	3.85	2.80	3.58	2.94	3.42	3.44	3.092
March ....	.56	4.07	2.88	4.60	3.83	3.64	4.15	5.38	4.03	4.67	3.781
April	3.13	2.91	1.45	1.97	4.75	4.59	1.97	2.52	3.01	4.33	3.063
May	2.42	1.69	2.83	4.71	3.11	1.77	7.13	5.82	4.25	2.45	3.618
June	3.86	2.30	1.18	2.27	1.58	3.10	3.60	8.67	3.13	2.61	3.230
July	3.19	1.85	4.17	5.08	2.15	2.67	3.17	5.29	4.39	7.41	3.937
August	6.30	4.99	4.36	8.12	4.04	5.27	6.38	5.97	5.36	4.15	5.488
September ..	3.52	1.99	2.32	8.68	3.46	4.20	1.68	87	62	3.90	3.684
October	8.30	4.69	4.72	10.39	4.02	3.69	7.43	7.27	3.08	7.81	6.140
November ..	4.93	5.87	4.14	4.47	4.54	5.39	4.75	5.04	4.93	2.50	4.656
December ..	7.36	5.35	4.78	3.81	4.85	2.21	4.80	7.17	3.96	9.59	5.388
TOTALS ..	53.71	39.90	37.95	62.85	46.03	41.81	55.30	59.71	51.33	55.71	50.430

1903 frange Station 1/2 mile SE
 1906 St Pauls Church 3/4 miles S.E.
 Shrubs 10 ft high 15 yards SE
 " 12 " 18 " S.E.

RAINFALL at Grange over Sands NetherwoodCounty of North LancashireObserver Miss S. M. ArkwrightRiver Basin Kend + C 3Brit. Assoc. Rain Gauge, by Casella

Diameter ...		5									
Height		2.6									
Altitude ...		low New gauge									
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	MEANS.
January ...			3.15	4.15				2.60			
February ...			2.81	2.41				1.57			
March			6.33	3.82				2.13			
April		3.35	1.19	4.62				1.83			
May		1.41	2.52	2.51				3.39			
June		2.45	5.63	2.62				2.85			
July .....		.79	6.11	1.04				1.58			
August		3.49	6.71	2.24				8.95			
September ..		4.57	1.96	2.50				3.98			
October ...		5.43	6.16	3.39				7.45			
November ..		5.34	6.24	4.23				6.01			
December ...		7.02	5.47	3.37				2.72			
TOTALS ...			54.28	36.90				44.76			

1911 Removed from Eyreslack

† Inspected by Dr. Mill 26. IX. 12. G. much rusted and collar practically rusted off
so that rain can enter g. from outside. Excellent exposure in ditch in garden.
1912 Bank + tree 40-50 ft high 207 yds S.W.

Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.
1912			Grange	1/4 m 250 yds	SE S.	St Pauls	1/2 m	SW

RAINFALL at

Grange over Sands, Netherland

County of North Lancashire

Observer Miss S. M. Arkwright

River Basin Kent &c 3

Situation Rain Gauge, by Coast

Av. 1916-1950 45.46

based on 19 years 1916-34

PB 734

New Gauge

Diameter ...			5								
Height			1.0								
Altitude ...											
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	MEANS.
January ...				4.15	4.24	5.25	4.80	2.60	5.41	5.60	
February ...				2.41	4.08	4.69	4.12	1.57	4.81	2.53	
March				3.82	4.67	2.30	1.47	2.13	2.09	4.77	
April				4.62	.78	2.36	2.48	1.53	1.61	1.76	
May				2.51	2.31	1.35	4.31	3.39	2.50	2.17	
June				2.62	1.08	.78	3.41	2.85	2.49	1.93	
July				1.04	5.12	4.70	2.51	1.58	4.73	1.01	
August				2.24	3.42	3.20	2.61	8.95	5.19	4.79	
September ..				2.50	3.76	.78	3.33	3.98	11.65	3.40	
October ...				3.39	2.18	1.34	7.27	7.45	5.05	2.21	
November ..				4.23	5.98	2.10	3.99	6.01	2.84	2.96	
December...			9.01	3.37	5.88	7.09	4.28	2.72	8.32	7.06	
TOTALS ...				36.90	43.50	35.94	44.58	44.76	56.69	40.19	

The New G is 8 ft from old one in future the new gauge will be entered
 1913 New Hoffing 20 yards NE
 Wall 9. 12 SW

Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.
1913			Grange	1/4 m 1/2	SE	St Pauls	1/2 m 3/4	SW

RAINFALL at Grange over Sands, RutwoodCounty of N. LancashireObserver Miss J. M. Arkwright - day VIII/24River Basin Rent & C 3J. Steen.Lowdown Rain Gauge, by Casella

Av. 1916-1950 45.46 based on 19 years 1916-34

PB 734

Diameter ...	5"										
Height	1.0										
Altitude ...				14.0							
Year	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	MEANS 1930
January ...	5.10	9.11	3.86	4.26	4.42	3.28	4.92	4.22	10.68	2.55	7.61
February ...	4.06	2.20	5.20	5.00	7.4	4.73	7.09	3.71	4.89	1.20	5.2
March	3.30	4.17	2.05	1.18	3.07	1.43	1.98	3.07	3.46	1.08	3.04
April	5.89	1.34	1.79	3.14	2.38	3.00	1.88	2.54	1.85	2.14	1.93
May	4.96	2.52	3.12	3.34	5.75	5.40	2.74	2.21	1.06	2.24	1.68
June	2.66	2.6	2.72	1.82	2.71	4.7	3.23	3.33	6.33	1.89	2.24
July	6.61	1.83	5.11	5.19	4.24	2.29	4.99	3.75	6.80	3.95	3.92
August	2.15	3.38	5.50	7.57	4.46	6.00	4.26	8.00	6.46	6.18	6.09
September...	3.50	2.29	4.79	4.98	5.87	4.03	5.20	7.55	3.47	2.34	2.43
October	1.77	3.12	9.57	7.60	4.44	3.28	3.69	4.35	6.09	(6.50)	8.91
November...	2.74	2.58	2.74	6.87	3.17	2.47	5.45	5.86	8.79	(5.46) (1.45)	5.62
December...	3.80	6.07	5.57	5.87	6.24	3.61	1.46	1.14	3.86	7.63	4.04
TOTALS...	48.56	40.87	43.40	55.42	47.49	41.99	46.89	49.73	63.84	(48.41)	48.03
	D	D	D	D	D	D	D	D	D	D	

1920 7 feet 6 1/2 high 30 yds N E

Position of Station on reduced Ordnance Survey }
Map, 2 miles to 1 inch Series

No. of Map

Reference No.

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction	Parish Church.	Distance from gauge	Direction
1920			Grange	1/2 mi	SE	St. Pauls	3/4 mi	SW
1929				1/2	SW		1/2	W

RAINFALL at Grange-over-Sands (Nutwood)*County of North LancashireObserver J. Steen, Esq. (died 1/37)River Basin Kent & C - 3Type of Gauge SnowdonAnnual Average 45.0 in. based on 48 years obs. un-weighted. Period of average 1881-1915 Ref. 8
45.46 19 1911-34 1916-1950 742.832/27

Diameter	5										
Height	1.0										
Altitude	140										
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Means
January	5.18	5.12	3.47	5.47	2.17						
February	4.87	.00	4.36	.29	6.31						
March	.78	3.57	3.20	2.67	1.27						
April	2.23	3.19	2.26	4.11	3.67						
May	2.65	6.86	2.17	4.51	.60						
June	6.83	1.95	2.77	3.20	5.17						
July	6.24	4.11	3.56	2.62	1.81						
August	3.56	1.98	3.33	5.22	4.16						
September	1.83	6.21	.73	4.97	8.89						
October	4.47	7.01	4.88	6.60	8.25						
November	8.46	3.79	2.60	1.46	4.23						
December	6.52	4.26	1.06	6.88	4.70						
TOTALS	53.12	48.05	34.89	48.00	51.23	N.R.					

1934. This 60' high 20 yds. NW.
" 20' " " 516 NW.

* This gauge was at 'Nutwood' during the period Nov. 1873 to 1929.

1937. R. J. Steen died on 21.5 Jan. 1937. No record for 1936 available.

Station terminated 3/11/37

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

No. of Map.....

Reference No.....

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction from gauge	Parish Church.	Distance from gauge	Direction from gauge
1931			Grange	1/2 m	S.	St Paul's	1/2 m	W.