

RAINFALL AT Hannahs Barn Crookfoot

Lat.

Lon.

County of Durham

Rain Gauge, by Casella.

Observer J Bowes Esq.

Dec - 1.

Halliford Farm Station Co

Diameter ..					10 □	12 □					
Height ..					1 6						
Altitude ..					293						
Year ..	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	MEANS.
January ..						.88	3.03	.56	1.06	.65	
February ..						.66	1.03	1.25	1.02	1.37	
March ..						1.47	.95	.74	3.77	4.63	
April.....						2.65	.68	1.69	2.08	2.20	
May77	2.71	2.83	2.40	1.71	
June84	1.01	3.72	.58	2.28	
July						1.06	.74	1.40	3.00	2.55	
August						3.25	3.15	2.12	1.06	4.84	
September..						2.36	.35	.37	2.11	2.14	
October....						2.58	4.71	4.80	1.66	2.55	
November..						4.68	2.66	2.65	1.47	1.29	
December ..						.58	1.96	3.17	.92	2.95	
TOTALS ..						21.28	22.98	25.30	21.13	29.11	

D D D D

1905 Embleton Church 1 mile SW

Hannahs Barn Station $\frac{3}{4}$ miles NW

1909 Corrected for wrong day

RAINFALL at Hurworth Burn Crookfoot Res.

County of Durham

Observer J. Bowes Esq C.E.

River Basin Tees & C

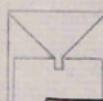
and Brandon Esq C.E.

Square Rain Gauge, by Casella

Diameter ...	10											
Height	16											
Altitude ...	293											
Year ...	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	MEANS.	
January ...	2.18	1.14	2.72	3.01	1.38	2.67	.52	3.54	1.80	2.12		
February ...	1.63	.95	1.49	.49	.94	2.25	2.86	.97	1.32	1.84		
March	-43	2.30	1.81	1.58	1.71	1.33	3.96	1.93	1.34	2.78		
April	2.03	1.04	.14	3.18	.41	.70	1.93	1.50	1.48	1.40		
May	1.77	.45	2.66	1.60	1.31	2.04	2.59	1.60	1.40	.85		
June	1.77	3.81	5.17	1.16	3.89	.47	1.99	1.99	.39	.71		
July	2.90	1.07	3.18	.65	3.01	3.20	2.61	.97	3.68	1.22		
August	2.51	2.45	4.56	1.48	.88	2.68	3.15	5.80	1.62	2.88		
September ..	.50	1.79	1.44	1.93	2.05	1.90	2.28	.93	4.89	.74		
October ...	3.04	2.73	2.47	2.95	2.17	1.89	2.52	1.98	1.82	6.21		
November ..	3.00	4.21	2.33	1.58	3.26	2.15	2.57	1.30	.77	3.75		
December ...	2.03	2.70	1.02	1.49	3.55	6.64	2.52	2.45	2.90	2.76		
TOTALS ...	23.79	24.64	28.99	21.10	24.56	27.95	29.30	24.96	23.41	27.43		

1910 Corrected for wrong day
1911 " " " at 2nd

Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.
1911	54° 46'	1° 20' W	Hurworth Burn	3 1/2 mi	N.W.	Embleton	7/8 mi	SW

RAINFALL at Harworth Burn Brookfoot ReservoirCounty of DurhamObserver A. W. Branson Esq. C.B.River Basin Tees & C.J.R. Bradshaw. (Gas Water Co. W. Hartlepool)Square Rain Gauge, by Casella

Diameter ...	<u>10</u>										
Height	<u>1.6</u>										
Altitude ...	<u>293</u>										
Year	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	<u>MEANS.</u>
January ...	2.96	3.81	2.32	1.01	1.75	1.18	1.96	1.10	2.97	2.61	2.61
February84	2.5	2.06	3.16	1.29	2.21	1.68	0.65	1.12	.86	1.53
March	2.68	71	1.62	1.80	1.09	1.39	.50	1.87	1.73	.21	2.85
April	3.28	93	1.74	1.68	1.62	2.49	.69	1.36	.84	1.08	2.09
May	3.21	1.31	1.11	2.48	4.64	2.23	2.15	1.63	1.42	1.44	1.06
June90	.47	1.31	.77	1.64	.08	3.10	2.80	4.86	1.86	.88
July	3.92	1.35	4.17	2.01	4.42	1.75	3.57	3.98	1.11	2.09	5.88
August	1.06	4.48	2.23	3.08	2.49	4.10	2.72	5.17	2.67	2.18	3.09
September...	1.21	.47	3.64	1.40	1.98	2.95	1.90	3.03	.78	1.04	2.82
October.....	2.65	1.65	1.57	1.86	3.28	1.84	2.59	1.51	3.02	1.92	1.75
November...	.66	2.79	94	3.77	.83	2.59	3.43	3.60	2.19	2.67	3.03
December...	3.27	1.38	3.96	2.36	2.18	3.10	1.15	2.63	1.27	2.22	1.53
TOTALS...	26.54	1958	2667	25.38	27.21	25.91	25.47	29.23	23.92	20.18	28.22

1926. Rainfall entered to day of reading up to 20th Sept., after that date credited to previous day.

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
1920	52° 40'	1° 20'	Harworth Burn	3 1/2 mi NW	Embleton

RAINFALL at ~~Hunsworth Burn~~ (Embleton Res.)

County of Durham

Observer J. R. Bradshaw, Esq.

River Basin Tees & c. - 1.

Type of Gauge M.O.

Annual Average 25.4 in. based on 22 years obs. un-weighted. Period of average 1881-1915 Ref. 5

917819/27.

Diameter	10.										10.38
Height	1.6.										1.6
Altitude	296.						293.				293.
Year	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	Mean Total
January	1.52	.95	1.64	9.2	1.94	3.02	1.83	1.75	3.99	1.52	19.11
February	1.82	.91	1.59	4.9	2.41	2.43	2.26	1.26	.72	1.84	14.73
March	1.77	2.83	1.43	1.76	1.70	1.59	2.39	.12	2.15	1.80	15.02
April	2.39	.93	.88	2.87	2.38	1.07	2.08	.11	1.89	1.32	15.42
May	2.43	3.75	1.63	.86	1.44	1.77	2.40	2.66	1.39	1.02	18.35
June	3.06	1.26	1.11	2.35	2.51	3.18	1.07	2.51	2.47	.88	20.40
July	4.17	3.22	2.32	1.61	.56	3.96	1.26	3.05	2.27	5.44	27.86
August	2.34	3.21	.36	2.79	1.60	1.94	1.13	2.07	1.63	1.29	18.36
September	4.04	1.88	1.80	1.45	5.46	2.31	1.42	1.47	1.45	1.47	22.75
October	1.01	3.06	4.20	2.44	3.91	1.17	1.77	3.13	4.81	2.94	28.50
November	1.95	1.08	2.98	2.13	3.79	2.18	2.48	1.83	2.52	3.12	24.06
December	.75	.89	1.78	3.84	2.30	1.39	4.89	3.18	.98	2.45	21.95
TOTALS	25.25	23.47	21.72	23.51	28.00	25.99	24.48	23.17	25.83	25.09	246.51
	D	D	D	D	D	D	D	D	D	D	

1940. Exposed, high, level ground. Hunsworth Burn debits, i new g wt 3 obn = 10%

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.			Hunsworth Burn	3.2 m	N.W.	Embleton	7.8 m	S.W.

BRITISH RAINFALL ORGANIZATION, EXHIBITION ROAD, LONDON, S.W.7.

Station No.

T.F. 3524.

RAINFALL at Embleton (Cragsfoot Res.)

41

County of Durham

Observer J.R. Bradshaw Esq.

River Basin Tees + C - 1

F.J. Webster Esq. (1941)

Type of Gauge Casella 10" square

ADAM HOPPES Esq. (1881-1915)

Annual Average 25.4 in. based on 22 years obs. unweighted. Period of average 1881-1915 Ref. S

File No. 917819/29

Diameter	10"		033	443		8"					
Height	1' 6"				1	1' 0"					
Altitude	293'				41	293'					
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Means Total
January	2.73	2.39	2.61	1.01	3.40	1.12	1.57	6.60	1.73	1.61	23.77
February	6.15	1.65	4.42	1.38	1.50	4.41	2.83	1.25	1.34	2.81	18.79
March	1.78	1.63	1.47	1.47	3.3	1.93	2.96	8.0	1.03	1.59	9.99
April	1.73	1.43	1.66	2.28	1.07	1.75	2.66	1.89	1.69	1.77	15.33
May	1.07	1.39	2.18	1.22	2.37	2.04	1.69	1.13	1.87	1.52	15.48
June	1.04	1.77	1.31	2.24	1.74	2.31	2.19	3.65	1.43	1.10	16.78
July	1.68	4.12	1.20	3.14	2.16	4.03	2.14	8.6	1.49	2.79	22.61
August	2.85	1.98	4.13	2.06	2.39	2.92	1.24	3.61	1.74	4.67	26.59
September	1.62	3.29	3.61	3.72	1.18	3.90	1.79	1.94	1.54	2.62	23.21
October	3.68	2.43	1.56	2.72	3.79	1.77	1.63	1.50	2.30	1.12	21.50
November	2.95	1.73	2.26	3.88	1.05	4.53	1.84	1.56	2.88	5.49	27.17
December	1.32	2.13	1.15	1.06	1.07	2.49	1.55	1.46	2.02	2.58	15.83
TOTALS	24.60	22.94	21.56	25.18	22.05	28.20	22.09	25.65	16.11	28.67	287.05

1941: Exposed high level ground. Low

13.746 Slight leak in funnel - gauge in use since 1902 now to be replaced by new gauge
10.10.46. New gauge substituted for old 10" gauge which was found to be leaking 12/1/46
1946 n.p. low gauge leaking.

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	Parish Church.	Distance from gauge	Direction
1941			Hunworth Burn LNER	3.2 miles	N.W.	Embleton	1/2 mile	S.W.

Station No. 3524 T.F. 47

51

RAINFALL at Embleton (Crookfoot Res.)

County of Durham

Observer Odame & Pipe Reg.

River Basin Tees & E-1

J. C. Lawrence Eng Bsc (2.1.22)

Type of Gauge Casella 10" square

Annual Average 25.4 in. based on 22 years obs. un-weighted. Period of average 1881-1915 Ref. S.
 " 24.87 " " 35 " Within 1916-56. " " " 1916-1950 " S.
 File No. 917819/29

Diameter ...	8"		033	443							
Height ...	1' 0"				1						
Altitude ...	293'				51						
Year ...	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Means 1950-60
January	1.24	1.76	.75	2.15	1.63	3.00	1.44	1.47	2.60	4.61	20.65
February	1.79	.55	1.70	1.61	2.16	1.53	1.93	3.98	.63	1.96	17.84
March	3.52	1.47	.12	1.38	1.29	.79	.99	2.42	.68	1.83	14.49
April	.93	1.72	1.90	.21	1.00	.77	.43	1.43	1.78	0.68	10.85
May	4.03	1.34	1.78	2.24	1.16	.33	1.28	2.89	.39	1.37	16.81
June	1.04	1.21	2.20	1.91	2.34	3.20	2.44	2.40	1.62	0.38	18.74
July	1.56	.76	2.68	2.02	1.21	2.89	4.09	2.93	2.23	4.46	24.83
August	4.71	1.90	4.25	4.93	.79	6.86	2.81	2.58	.28	2.46	31.57
September	1.01	4.50	1.10	1.67	1.25	1.70	3.06	1.93	.92	2.11	19.25
October	1.34	2.39	1.23	3.69	1.28	1.26	1.70	1.44	1.18	8.17	23.68
November	4.20	3.65	1.48	3.12	2.10	1.03	1.21	.75	3.79	3.08	24.41
December	3.31	2.39	.97	1.63	2.25	1.72	.92	2.99	3.38	2.63	22.19
TOTALS ...	28.68	23.64	20.16	26.56	18.46	25.08	22.30	27.21	19.48	33.74	245.31
	D	D	D	D	D	D	D	D	D	D	

1958: "Exposed high ground"

10

Position of Station on Ordnance One-Inch map : No. of Map National Grid Reference NZ(45) A31309

Date.	Lat. N.	Long.	Railway Station.	Distance from gauge	Direction from gauge	Parish Church.	Distance from gauge
1951			Hunsworth Burn	Stand	NW	Embleton	Stand SW.

Summary of Earlier Records from 10-year Sheets :

Record D. or d	C1905	1910-19	1920-30	1931-40	1941-50	1951-60
		✓	✓	✓	✓	✓
		✓	✓	✓	✓	✓