

# RAINFALL AT *Hammock Run Creekfoot*

Lat. ....

Lon. ....

County of *Durham*

Rain Gauge, by *Casella*

Observer *J. Bowen Esq. C.E.*

*Hall's for sale*

*Dec - 1.*

Diameter ..						10 <input type="checkbox"/>	12 <input type="checkbox"/>				
Height ....						1	6				
Altitude ..						293					
Year ....	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	MEANS.
January ..						.38	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	
May .....						.77	2.71	2.83	2.40	1.71	
June .....						.84	1.01	3.72	.58	2.23	
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	2.65	
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	

1905 Embledon Church 1 mile S W  
Hammock Run Station 3 <sup>2</sup>/<sub>4</sub> miles N W  
1909 Corrected for wrong day

RAINFALL at Hurworth Burn Crookfoot ResCounty of DurhamObserver J. Bowen Esq C.E.and Branson Esq C.E.River Basin Tees + CSquare Rain Gauge, by Canella

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	2.82		
February ...	1.63	.95	1.49	.49	.94	2.25	2.86	.97	1.32	1.84		
March .....	.48	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	.78	1.73	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	2.69	3.15	5.80	1.62	2.28		
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	1.99	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 Connected for wrong day  
 1911 "  
 et seq.

Date.	Lat. N.	Long.	Railway Station.	Distance.	Direction.	Church.	Distance.	Direction.
1911	54° 46'	1° 20' W	Hurworth Burn	3½ mi	N.W.	Embleton	7½ mi	SW

RAINFALL at Hunworth Burn Crookfoot ReservoirCounty of DurhamObserver A. W. Branson Esq. G.C.River Basin Tees & C. 1J.R. Bradshaw (Eastwater 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	1930. MEANS.
January ...	2.96	3.81	2.32	1.01	1.75	1.18	1.96	1.10	2.77	2.61	2.61
February ...	.84	.25	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	2.35
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
June .....	.90	.47	1.31	.77	1.64	.08	3.13	2.80	4.86	1.86	.88
July .....	3.92	1.33	4.17	2.01	4.42	1.75	3.57	3.98	1.11	2.09	5.48
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	.72	1.04	2.82
October .....	2.60	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	3.50	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	19.58	26.67	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 20<sup>th</sup> 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	Parish Church.	Distance from gauge	Direction from gauge
1920	54° 40'	1° 20'	Hunworth Burn	3 1/2 mi	NW	Embleton	7 1/2 mi	SW



RAINFALL at Embleton Hurworth Burn (Crookfoot Res.)County of DurhamObserver 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. S

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	Means Totals	
January	1.52	.95	1.64	.92	1.94	3.02	1.83	1.78	3.99	1.52	19.11	
February	.82	.91	1.59	.49	2.41	2.43	2.26	1.26	.72	1.84	14.73	
March	.77	2.33	1.43	1.76	.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	1.39	1.32	15.42	
May	2.43	3.75	1.63	.86	.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	4.87	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	1935
	D.	D.	D.	D.	D.	D.	D.	D.	D.	D.		

1940. Exposed, high level ground. Hurworth Burn deleted, in view of note 3 above - 1935.

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 from gauge	Parish Church.	Distance from gauge	Direction from gauge
1931.			Hurworth Burn	3 1/2 m	N.W.	Embleton	7/8 m	S.W.

Station No. T.F. 3524.RAINFALL at Embleton (Croskford Res.)

41

County of DurhamObserver J.R. Bradshaw Esq.River Basin Tees & C. - 1F.J. Webster Esq. (1929)Type of Gauge Casella 10" squareAdam Hors Esq. (1931)Annual Average 25.4 in. based on 22 years obs. un-weighted. Period of average 1881-1915 Ref. SFile No. 91789/29

Diameter	10"		0.33	4.43		8"						
Height	1'6"			1		1'0"						
Altitude	293'			41		293'						
Year	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	Means	
											<i>Totals</i>	
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	1.42	1.38	1.50	4.1	2.83	1.26	1.39	2.81	18.79	
March	1.78	1.63	1.47	1.47	1.33	1.93	2.96	1.80	1.03	1.59	9.99	
April	1.73	1.43	1.66	2.28	1.07	1.75	2.66	1.29	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	1.86	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	237.05	10
	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>	<i>D</i>		

1941: Exposed high level ground.

13.7.46 Slight leak in funnel - gauge in use since 1902 now to be replaced by new 8" gauge from Casella.

10.10.46 New 8" gauge substituted for old 10" gauge which was found to be leaking 12/1/46

1946 m.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 from gauge	Parish Church.	Distance from gauge.	Direction from gauge.
1941			Hunworth Burn LNER	3 1/2 miles	N.W.	Embleton	7 1/2 miles	S.W.

Station No. 3524 T.F. 47RAINFALL at Embleton (Crookfoot Res.)

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County of DurhamObserver Adam Hope Esq.River Basin Tees & G. 1J. C. L. Esq. 1916-1950Type of Gauge Laevella 10" squareAnnual Average 25.4 in, based on 22 years obs. un-weighted.Period of average 1881-1915Ref. 5" " 24.87 " " 35 " " within 1916-56File No. 1916-1950Ref. 5

Diameter ...	8"		053	443								
Height ...	1'0"			1								
Altitude ...	293'			51								
Year ...	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	Means	
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	D	

455: "Exposed high ground"

Position of Station on Ordnance One-Inch map :

No. of Map.....

National Grid Reference N22(45) 431309

Date.	Lat. N.	Long.	Railway Station.	Distance Direction from gauge	Parish Church.	Distance Direction from gauge.
1951			Harworth Burn	Stand NO	Embleton	742 SW.

Summary of Earlier Records from 10-year Sheets :

Record D, or d	1910-19	1920-30	1931-40	1941-50	1951-60
C1905	✓	✓	✓	✓ 45-16 mm	np46
	✓	✓	✓	✓	