

# <u>Cumbria Weather Report – The Year 2024</u>

## A very poor year

With one exception, another very mild year – much wetter than average - Dull.

Quite simply 2024 was a very poor year. The only point that prevented it from being a terrible year was the fact that, fortunately, there wasn't any wide-spread or extensive flooding.

Apart from the dullness of the year, sunshine totals were just 89% of the LTA, the two principal low points were just how wet the first seven months of the year were and the lack of a summer. After July, the Environment Agency in their monthly report stated:

"It (Aug-23 to July-24) was the wettest 12-month period ending in July since 1871 for all hydrological areas with the exception of the Ribble and the Esk (Dumfries), with:

- north-west England at 1647mm beating the previous record of 1580mm in 2020
- Cumbria and Lancashire at 1864mm beating the previous record of 1786mm in 2016"

Cumbria's weather is often topsy-turvey and full of contradictions, but by April the wet and dull start to the year had become quite depressing and the farming community were especially suffering with the land waterlogged and lambing becoming very challenging.

In our county of contradictions at some sites both the year's highest and lowest temperatures fell during the autumn months and whilst the mean temperature for the year finished above average, at Ambleside, it didn't!

Whilst the years highest temperature in Cumbria was recorded during the summer, it wasn't particularly high, there was no threat of 30°c being attained this year – but at most sites all the three summer month's would finish with a mean temperature below the long-term average.

And obviously the disappointment of summer came on top of that very wet start.

Through the year it was an achievement if we had four consecutive dry days and we had to wait for November before a more prolonged dry spell.

Simply because both 2022 and 2023 were so warm, 2024 finished as the coldest year since 2021, but this does not disguise the fact that it was another very warm year.

Typically it was that little bit warmer out west, both Keswick and Bridgefoot (between Cockermouth and Workington) finishing with a mean temperature over  $10^{\circ}$ c, Keswick being slight warmer, but Bridgefoot showing a greater departure from the LTA at  $+0.83^{\circ}$ c.

However, at Seaton (Nr. Workington) the mean temperature for the year was 11.1°c and the second warmest yet recorded to that of ... 2023!

Unfortunately both the two locations that are often the warmest and coldest parts of Cumbria have incomplete records this year; Walney for the warmest and Spadeadam, which is normally in a two horse race with Shap, as the coldest.

No such trouble with rainfall though.

Honister finished as the wettest location in the county with

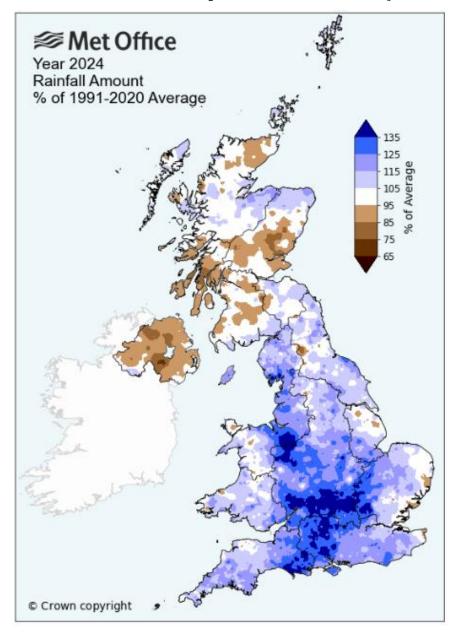
4751.8 mm (187.08 In) and was one of the locations to top the 125% mark.

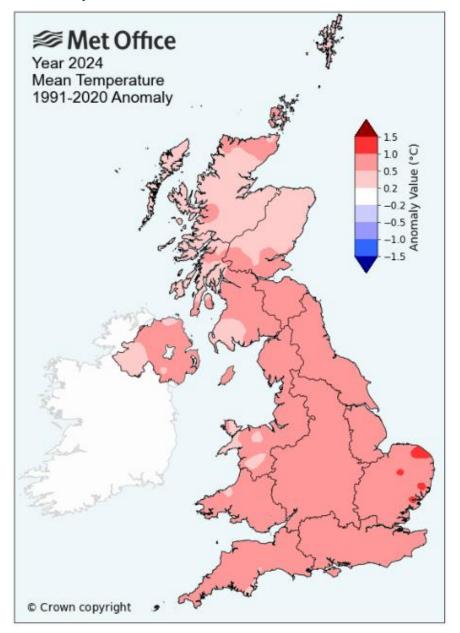
However, once again Aisgill in the south-east of the county finished with the lowest percentage total for the year with just 89.9%.

Appleby In Westmorland (06/1856) and Seathwaite 01/1845) have the longest continuous rainfall records here in Cumbria and at Appleby its 1131.7 mm made it the  $8^{th}$  wettest out of the 168.

Whilst at Seathwaite it was the 17<sup>th</sup> wettest year and one of 20 to top 4000 mm.

# This report should be used in conjunction with the monthly editions of the CWR.





## **Station Notes**

Ambleside - Rainfall was 2689.2 mm -- only 2015 was wetter, recording since 1961.

**Appleby in Westmoreland** – 1131.7 mm is 126.1% of average for the period 1857-2020. Wettest since 2020 -- the 8<sup>th</sup> wettest in that time

Since 1857 there have been 10 vey wet years (over 125%), of which five are this century! This century has had 13 'wet' or 'very wet' years and only 3 dry ones and have to go back to 1996 for a very dry year.

**Bewcastle** - **2024** was generally a mild year in Bewcastle; average temperature was 9.1°c, 0.2° above our 10-year mean (8.9°c).

Although monthly maximum temperatures were mostly close to average, there were a couple of exceptions.

May was our warmest on record, and September close to our coolest. However, monthly minimum temperatures saw new maxima for February, March, May (by a massive  $2^{\circ}$ ) and December (equal max). Only June saw a monthly mean minimum equal to our coolest on record.

Our highest daily maximum was 25.5°c in June, our coldest was -11.6°c on 18<sup>th</sup> January, equalling our coldest POR min temp set on 15<sup>th</sup> December 2022.

Annual **rainfall**, at 1289mm, was very close to our measured mean of 1259 mm (although over 100mm higher than the MO estimated mean of 1170mm).

Until the beginning of November, it looked like we could have ended up with a very wet year, particularly with the wet April and very wet August.

But the dry November changed that and brought us back to the mean.

**Sunshine**, however, was abysmal. Most months, apart from June, had below average sunshine, so through the year we were dropping further below the mean curve. But November and December combined to almost completely flatten the curve, with a total of only 50 hours compared to the expected 90.

Consequently we had only 1147 hours of sunshine in the year compared to the average 1395 hours, some

Consequently we had only 1147 hours of sunshine in the year, compared to the average 1395 hours, some 250 hours less than expected; that's about 6 weeks' worth of summer sun.

**Brampton** – Rainfall was 1034.9mm or 106.3% -- 9<sup>th</sup> wettest

Mean Temp was 9.78°c (+0.38c) -- 4<sup>th</sup> equal warmest

22<sup>nd</sup> May with 66.7mm my wettest ever day on record!

Sunshine 1107.9hrs or 89.3% (3<sup>rd</sup> dullest)

24 AF -- 86 GF -- Fog 6

2024 will be remembered for a very poor summer, after a wet spring, things didn't improve and rainfall was abundant.

I recorded my wettest May on record, June and July were below normal for temperature but after a mild winter somehow the mean temperature was above normal and I recorded my 3rd warmest year.

As a groundsman for our local cricket team it appeared to rain more during the mid week period, with weekends fairing better, making it a very difficult period preparing the wickets.

As for snowfall I only recorded one day with lying snow at 0900hrs and that was just 1cm.

**Carlisle -** Mean temperature +0.66c above normal.

**Coniston** – annual rainfall total of 3225.4 mm.

Ennerdale Black Sail – 4545.4 mm is 115.2% of its average (2000-21)

Wettest since 2020 -- 21 have been drier and three wetter

**Grasmere** - Total rainfall = 2898.1 mm (114.1 In)
Peter, the rainfall observer is now into his 35<sup>th</sup> year!

**Grisedale** - Total rainfall for 2024 was 2,363mm which is just 1% above our 7yr average. Measuring number of wet days, 2024 was the wettest year we have ever had, with 263 days having some rain (73% of the year, and 10 days more than the average over the last 7 years

**Maulds Meaburn** - Mean temperature of 9.44°c is 0.53°c above the 15yr average for this site.

The coldest since 2021 -- three years have been warmer and twelve colder Rainfall of 1428.9 mm is 113.8% of average (2008-2023) -- Wettest since 2020 Fourteen have been drier and two wetter.

No. of rain days (220) is 3.2 above average

First time in record that every month recorded in excess of 50mm rainfall First time in record that 50mm+ was recorded on x3 separate days during the year 47 air frosts is 11.2 below average -- 99 ground frosts (18.6 below average) 37 days attained 20°c+ (1.2 above average) and 1 day attained 25°c (4.7 below). Two days of lying snow is 8.6 below average.

Scotby – 2024 was another warmer than average year but slightly cooler than the previous two. The mean temperature for the year was 10.5c (mean maximum 14.3c). February, May, October and December were warmer than average, but June, July and August were all colder than average.

The total rainfall for 2024 was 957.4mm (37.7") - very slightly above the long term average. March, April, May and August were wetter than normal but June, September and November were drier than average.

**Seathwaite Farm** - 4125.2 mm is 122.2% of average for 1845-2020

Wettest since 2020 -- the 17<sup>th</sup> wettest year

The breakdown is curious of when the 4000mm years occurred

1845 - 1899 = 7

1900 - 1949 = 3

1950 - 1999 = 1

2000 - 2024 = 9

Seaton - second mildest year on record here, just behind 2023.

The highest temperature of the year occurred in September. Despite the mildness, 2024 had the lowest maximum temperature since 2010 with no significant heat throughout the summer.

August was extremely wet locally, being my wettest month on record, slightly exceeding the total of November 2009. This was followed by a notably dry autumn, the driest on record here.

Only 2 days occurred with any snow falling here and no thunder was recorded.

	Mean	Mean		Highest	Lowest	Highest		Number of		Cumulative		Snow Lie (>50% at			Wettest	Rain	Wet
Month	Max	Min	Mean	Max	Max	Min	Min	air frosts	Rainfall	rainfall	Snowfall	0900 GMT)	Hail	Thunder	Day	Days	Days
January	7.9	3.1	5.5	11.8	3.3	8.1	-5.5	7	94.8	94.8	1	1	0	0	20.8	19	12
February	9.7	5.2	7.4	12.1	4.3	9.7	0.2	0	73.8	168.6	0	0	2	0	14.2	23	12
March	11.1	4.9	8.0	16.2	6.4	9.2	0.8	0	77.6	246.2	1	0	0	0	18.0	19	15
April	12.9	5.9	9.4	19.4	9.6	10.8	0.7	0	83.6	329.8	0	0	0	0	17.6	20	16
May	18.6	11.1	14.9	25.1	12.1	13.9	8.5	0	76.8	406.6	0	0	0	0	23.0	17	10
June	17.1	10.9	14.0	25.1	13.3	15.2	7.2	0	35.0	441.6	0	0	0	0	8.0	16	11
July	18.9	12.4	15.7	23.6	16.3	16.9	8.1	0	52.2	493.8	0	0	0	0	13.6	18	6
August	18.7	13.3	16.0	24.2	15.9	16.1	8.1	0	260.0	753.8	0	0	0	0	50.0	21	16
September	17.5	10.4	14.0	25.2	12.1	14.8	3.2	0	44.2	798.0	0	0	0	0	12.0	17	6
October	14.7	9.4	12.0	17.1	9.6	13.8	1.4	0	79.4	877.4	0	0	0	0	16.2	18	10
November	10.9	5.4	8.2	16.2	2.8	12.8	-4.3	6	21.2	898.6	0	0	0	0	13.6	11	1
December	9.7	5.9	7.8	13.7	3.3	10.6	-1.5	1	91.4	990.0	0	0	0	0	12.6	23	13
Annual	14.0	8.2	11.1	25.2	2.8	16.9	-5.5	14.0	990.0	990.0	2	1	2	0	50.0	222	128

Shap - Mean temp of 8.69°c is +0.68°c warmer than average
 Since 2006 (one incomplete year) – the coldest since 2021 - 3 having been warmer and 14 colder
 Rainfall of 2100.0 mm is 113.8% of average
 In a record from 1989 it is the wettest since 2020 -- 27 have been drier and eight wetter -- 61 air frosts is 16 below average.

Shap 2024	Min	Max	High	Date	Low	Date	AF's	Rain	<b>Wet Days</b>		Wet Day	Date	Notes	Ave	rage
														Temperature	Rain
Jan	-0.4	5.9	11.0	21st	-11.1	18th	12	357.8	13		82.6	21st		- 0.25	153.2%
Feb	3.1	8.5	12.8	21st	-3.6	8th	6	153.2	15		25.6	21st		+ 2.65	80.8%
Mar	2.4	8.8	12.4	31st	-4.7	2nd	9	191.8	19		31.6	13th		+ 0.95	135.6%
Apr	2.9	10.8	17.0	30th	-6.3	26th	6	235.4	17		33.8	8th		+0.10	252.0%
May	7.7	16.8	21.8	11th	2.7	21st	0	129.0	12		74.4	22nd	1	+ 2.95	130.8%
June	7.9	16.3	23.4	25th	2.9	13th	0	77.0	14		17.0	13th		+/- 0.00	76.8%
July	9.0	17.9	23.1	31st	2.6	8th	0	84.2	16		30.4	9th		- 0.60	78.9%
Aug	10.4	17.4	22.2	1st	2.3	31st	0	231.6	20		31.4	21st		+0.20	173.5%
Sept	7.1	15.5	23.5	6th	-2.0	13th	2	98.6	12		22.2	25th		- 0.25	75.2%
Oct	6.1	12.8	15.5	16th	-2.5	14th	2	166.4	13		29.2	16th		+ 1.05	90.0%
Nov	1.4	8.4	13.8	23rd	-8.6	21st	14	129.2	6		88.2	23rd	2	-0.55	63.0%
Dec	3.5	8.3	12.5	23rd	-2.1	3rd + 10th	4	245.8	14		89.6	31st		+2.70	100.2%
Year	5.09	12.28	23.5		-11.1		55	2100.0	171		89.6			+0.68	113.8%
	8.	69	1	Notes:-											1
				1	Warmest I	May on Recor	d			Wettest	since 2020	(since	1989) 27 d	lrier + 8 wet	ter
	+0.86	+0.84		2	88.2 mm is the wettest November day recorded at this site										
										Cold sinc	e 2021 (Sino	ce 2006, 1y	r Missing)	3 warmer + 1	L4 colder

## Notable events in 2024:

- Slight flooding in January following 'Storm Isha'
- April exceptionally wet and the wettest ever at some sites
- Farming April due to the very wet start to the year and coinciding with lambing, farmers were literally picking up scores of dead lambs and the ground/fields were totally saturated
- 22<sup>nd</sup> May the 'wettest spring day in northern England'. At sites such as Brampton it was actually their wettest ever day
- August exceptionally wet within the LDNP at Seathwaite it was the wettest summer month ... ever!
- The greatest 24Hr rainfall total of the year fell on 21<sup>st</sup> August 156.4 mm at Honister one other day in the month also topped 100 mm

## The highest and lowest temperatures recorded (at a standard site) in the county this year were:

Lowest was recorded at Bewcastle (very NE of the county), -11.6°c (11.1°f) falling on the 18<sup>th</sup> January. The highest was 26.3°c (79.3°f) which was recorded at Carlisle (26<sup>th</sup> June) and at Sedbergh and Levens on 31<sup>st</sup> July

Away from the LDNP the greatest 24Hr rainfall total was a quite remarkable 105.2 mm recorded at Thursby (Nr. Carlisle) on the 22<sup>nd</sup> May. Mention should also go to Geltsdale (Nr. Brampton) which recorded 100.8 mm on the same day.

A selction of mean temperatures for 2024 from various official sites

2024	Ambl	eside	Anon	Bram	pton	Anon	Carl	lisle	Anon	Bridg	efoot	Anon	Kes	wick	Anon	Maulds	Meaburn	Anon	Sh	ар	Anon
Jan	1.0	6.0	-0.60	1.4	6.4	-0.20	1.6	6.9	-0.30	1.1	7.4	+0.05	1.40	7.60	-0.20	0.79	6.00	+0.05	-0.40	5.90	-0.25
Feb	4.1	8.9	+1.80	4.0	8.7	+1.95	4.4	9.4	+2.05	3.8	9.4	+2.10	4.20	9.60	+2.10	3.66	8.93	+2.32	3.10	8.50	+2.65
Mar	3.9	10.1	+0.95	3.9	9.8	+0.95	4.3	10.5	+1.05	3.6	10.6	+1.25	4.30	10.30	+1.05	3.21	9.55	+0.87	2.40	8.80	+0.95
Apr	4.4	11.3	-0.80	4.5	11.8	+0.10	4.9	12.7	+0.20	4.7	12.6	+0.70	5.00	12.40	+0.30	4.02	11.78	+0.18	2.90	10.80	+0.10
May	9.6	17.5	+1.90	10.0	17.5	+2.75	10.5	18.4	+3.10	9.6	18.2	+3.15	10.00	18.30	+2.85	8.66	17.89	+2.85	7.70	16.80	+2.95
June	8.9	16.6	-1.45	9.6	16.4	-0.85	10.2	17.4	-0.25	9.7	16.7	-0.70	9.60	17.20	-0.20	8.60	16.95	-0.74	7.90	16.30	+/-0.00
July	10.4	18.4	-1.60	11.3	18.0	-0.95	11.7	18.8	-0.60	11.0	18.3	-0.45	11.10	19.00	-0.65	10.10	18.85	-0.68	9.00	17.90	-0.60
Aug	10.9	17.9	-1.45	11.9	17.9	-0.20	12.6	18.9	+0.20	12.0	18.3	+0.20	12.10	18.60	+0.05	11.15	18.37	+0.20	10.40	17.40	+0.20
Sept	8.1	16.7	-0.95	9.1	15.6	-0.85	9.3	16.6	-0.60	8.6	17.0	-0.15	9.10	17.20	-0.25	7.78	16.45	-0.56	7.10	15.50	-0.25
Oct	7.1	13.3	+0.15	7.9	13.7	+0.75	8.3	14.4	+1.05	7.3	14.2	+0.80	7.70	14.10	+0.75	6.63	13.60	+0.46	6.10	12.80	+1.05
Nov	3.4	8.5	-0.90	3.4	9.1	-0.40	3.8	9.8	-0.25	2.7	10.5	-0.15	3.10	10.10	-0.50	2.01	8.90	-0.63	1.40	8.40	-0.55
Dec	4.1	8.2	+1.65	4.4	8.9	+2.25	4.8	9.6	+2.60	4.0	9.3	+2.15	4.30	9.80	+2.20	3.56	8.65	+2.11	3.50	8.30	+2.70
												Γ									
YEAR	6.33	12.78		6.78	12.82		7.20	13.62		6.51	13.54		6.83	13.68		5.86	13.01		5.09	12.28	ĺ
MEAN	9.	55	- 0.15	9.	78	+ 0.38	10	.41	+ 0.66	10	.03	+0.83	10	.25	+ 0.65	9.	44	+0.53	8.	69	+ 0.68
																					1
Mean 1991-2020	9	.7		9	.4		9.	75		9	.2		9	.6		8.	.91		8.	01	

# A selction of rainfall totals for 2024 from assorted sites

2024	Maulds Meaburn +	Ambleside	Castle Scar	Honister +	Shap +	Appleby *	Thursby*	Brampton+	Mickleden Langdales *	Aisgill Moor *	Kirkby Thore *	Brothers Water *	Seathwaite Farm *	Coniston	Calder Hall *	Carlisle +
Jan	243.1	342.1	315.2	551.4	357.8	167.5	105.50	113.9	380.8	241.05	122.4	447.00	465.4	369.9	127.0	115.0
Feb	84.4	274.4	136.9	460.6	153.2	58.0	76.15	78.8	359.4	148.87	43.8	261.47	424.0	307.2	114.2	88.4
Mar	106.9	238.0	137.3	421.6	191.8	65.4	94.20	86.5	332.8	164.10	51.2	331.30	394.6	301.0	87.8	89.2
Apr	145.6	258.6	193.2	423.2	235.4	112.4	108.00	93.9	365.8	154.50	99.6	349.50	380.6	310.1	123.0	113.6
May	114.6	178.6	118.4	241.0	129.0	120.9	150.90	134.1	199.8	115.50	128.2	133.37	199.0	155.0	92.4	148.8
June	52.1	104.1	62.3	223.0	77.0	53.5	53.30	59.4	194.6	75.30	54.4	129.60	181.4	127.8	58.8	56.6
July	90.4	140.7	111.3	167.6	84.2	77.3	69.10	77.6	174.2	81.60	98.0	104.40	134.6	140.6	62.8	76.6
Aug	117.7	347.2	169.5	961.6	231.6	67.2	119.10	128.0	555.4	145.43	54.4	486.33	792.2	494.1	209.8	155.6
Sept	95.2	95.3	108.8	182.0	98.6	106.7	73.20	44.9	173.8	125.15	88.0	129.15	192.0	132.2	89.4	43.8
Oct	144.8	226.6	191.2	317.8	166.4	134.7	88.00	97.8	305.4	160.30	117.2	236.14	265.0	290.0	116.0	98.4
Nov	96.9	152.1	132.3	211.2	129.2	68.5	29.60	39.2	172.4	90.30	51.2	180.12	176.0	193.9	58.8	30.6
Dec	137.2	331.5	190.2	590.8	245.8	99.6	94.70	80.8	443.6	206.10	78.0	398.68	520.4	403.6	119.2	81.2
YEAR	1428.9	2689.2	1866.6	4751.8	2100.0	1131.7	1061.75	1034.9	3658.0	1708.20	986.4	3187.1	4125.2	3225.4	1259.2	1097.8
%	113.8	127.9		126.5	111.1	125.9	125.8	106.3	115.6	89.9	123.7	115.0	122.2	119.6	111.4	119.5
* = Enviro	nment Age	ency gauge	+ = N	1et' Office	site					Relativel	y new reco	rds with no	t enough ye	ears data		
Castleho	we Scar is	between S	hap and C	rosby Rave	nsworth											
						Italics = es	timate									
Long Term																
Averages	1252.7	2102.9		3755.7	1862.9	898.0	844.1	973.2	3163.8	1899.2	797.3	2772.0	3370.1	2695.9	1130.0	918.8

Maulds		Min	Max	High	Date	Low	Date	AF's	GF's	Rain	Wet Days	Wet Day	Date	Ave	erage	Notes
Meaburn 20	24													Temp'	Rain	
Ja	n	0.79	6.00	11.6	21st	-8.8	18th	11	19	243.1	13	63.8	21st	+ 0.05	178.9%	1,2,3
Fe	b	3.66	8.93	12.8	15th	-2.5	8th	4	15	84.4	12	15.8	21st	+ 2.32	76.4%	4
M	ar	3.21	9.55	13.5	17th	-3.3	4th	2	13	106.9	19	14.1	13th	+ 0.87	117.5%	5
A	or	4.02	11.78	18.4	30th	-3.1	26th	6	9	145.6	18	29.3	8th	+ 0.18	282.7%	5,6,7
M	ay	8.66	17.89	24.1	18th	4.0	28th	0	0	114.6	9	62.1	22nd	+ 2.85	191.3%	8,9,10
Jui	ne	8.60	16.95	24.7	26th	3.1	13th	0	1	52.1	12	8.5	15th	- 0.74	63.2%	
Ju	ly	10.10	18.85	24.3	19th	4.2	8th	0	0	90.4	15	35.8	9th	- 0.68	89.7%	
Au	ıg	11.15	18.37	24.7	11th	4.4	31st	0	0	117.7	15	19.1	21st	+ 0.20	109.8%	
Se	pt	7.78	16.45	25.7	6th	-0.5	13th	2	3	95.2	12	25.4	8th	- 0.56	100.3%	11
0	ct	6.63	13.60	16.5	6th	-1.1	14th	3	9	144.8	12	39.0	16th	+ 0.46	114.2%	
No	v	2.01	8.90	14.2	23rd	-9.0	21st	11	17	96.9	6	59.6	23rd	- 0.63	74.8%	12, 13
De	c	3.56	8.65	12.2	23rd	-1.7	20th	8	13	137.2	12	45.9	31st	+2.11	85.9%	
	_										=					
Ye	ar	5.86	13.01	25.7		-9.0		47	99	1428.9	155	63.8		+0.53	113.8%	
	F			ā												
		9.	44													
	tes:				1.660					-11						
1							any month	some Ji	ooaing in v	ıllage						
3			vettest day			-		and time is	mu racar	dowbon 16	Omm has h	oon tonno	d in consecut	tivo davo		
4			ay totaroj February y			1 - 2151 15 0	iny the sec	ona ume ii	i my record	is when it	omm nas b	еен соррес	i ili consecut	ive duys.		
5			ber of 'We			hat month	1									
6			pril yet reco	-	oraca jor t	nat monti	,									
7			the wette		v vet record	ded										
8							h wettest o	lav in the e	ntire recor	d						
9			May yet re					,								
10					spring yet	recorded -	367.1 mm	and 9.20°c								
1		Both the warmest and wettest spring yet recorded - 367.1 mm and 9.20°c  Air Frost recorded on 13.9.24. is a new record for the earliest date to record such in autumn														
1	2	Minimum	temperatu	ire of -9.0c	is a new re	cord low f	or Novemb	er								
1	3	Rain of 59	.6 mm mak	kes it the w	ettest Nov	ember day	in my reco	rds and 9t	h wettest o	of any day						

## Other data specific to Maulds Meaburn

- During 2024 snow lay on the ground\* on 2 days (8.6 below average) and was seen to fall on 8 (inc' sleet) (16.3 below average) with hail falling on 5 days.
- Fog\* was recorded on 4 days with thunder heard on 3 days (1.6 below average).
- Mean cloud\* cover was 86% (the highest yet recorded) with 156 days having a 100% cover\* and 2 days being totally clear.
- Mean air pressure\* was 1012.5 MB (0.6 below average) Lowest pressure was 971.3 Mb (28<sup>th</sup> March) and the highest was 1042.9 MB (11<sup>th</sup> January).
- Mean wind speed\* was 6.11 Mph the highest gust = 69 Mph (21<sup>st</sup> January) the windiest day with a mean speed of 22.7 Mph was the 5<sup>th</sup> February.
- Gales (a 10 min' mean wind speed of 39 Mph) were recorded on 4 days.
- We had 47 air frosts (11.2 below average) 99 ground frosts (18.6 below average)

  37 days attained 20°c+ (1.2 above average) of which 1 went on to attain 25°c (4.7 below average).
- There was one 'Ice Day' (7th January) when the temperature remained below freezing all day.
- The 30 cm soil temperature had a mean of 10.7°c with a low of 2.0°c (20<sup>th</sup> and 21<sup>st</sup> Jan') and a high of 18.5°c (27<sup>th</sup> June).
- The 100 cm soil temperature had a mean of  $10.6^{\circ}$ c with a low of  $5.7^{\circ}$ c ( $21^{st}$  and  $22^{nd}$  Jan') and a high of  $15.0^{\circ}$ c ( $15-16^{th}$  August).
- \* Refers to 0900 GMT the hour of observations.

Records for this site during 2024 were:

- Earliest autumn air frost 13<sup>th</sup> September -0.5°c
- The first year to record 50 mm plus of rain on three separate days
- The first year not to have a single month record less than 50 mm of rain

Below is the rainfall card from Maulds Meaburn for 2024

# **REGISTER OF RAINFALL IN 2024**

At Maulds Meaburn, Westmorland

## Time of Observation, 0900 GMT

Latitude ..... 54° 32' 18 N Longitude .. 2° 34' 55 W Height of Receiver} above ground...... 1ft of rain gauge } above sea level 600 ft

Date         Jar           1         13.           2         20.		Mar 8.4	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
	2 0.2	ο 1									
2 20		0.4	7.3	-	-	1.8	-	16.4	0.1	-	4.6
2 20.	3 0.4	7.5	2.6	0.1	-	10.0	0.9	6.5	-	-	0.1
3 0.4	ļ -	tr ^	3.0	0.8	tr	2.8	0.2	2.0	-	-	0.7
4 0.9	0.2	2.2	18.2	tr	2.5	0.7	2.2	0.4	-	-	14.3
5 1.3	3 1.3	-	14.1	0.1	1.4	-	8.5	-	0.6	0.1	7.0
6 0.3	3# -	-	17.3	5.1	0.2	-	0.5	-	10.7	-	23.6
7 0.2	# 0.2	tr	0.6	-	1.1	1.9	1.1	-	0.4	-	8.7
8 0.	3^ 3.2	-	<u>29.3</u>	-	-	3.7	5.3	<u>25.4</u>	21.3	-	1.3
9 <i>0</i> .	9.0	0.4	3.6	-	3.9	<u>35.8</u>	0.6	3.6	0.6	0.6	-
10 0	0.1 #	-	3.6	-	4.9	2.7	-	-	-	0.1	-
11 -	0.6	tr	7.1	-	-	4.2	0.5	0.5	-	-	-
12 -	3.7	14.0	1.2	17.9	-	-	-	0.4	4.1	-	-
13 0.9	2.1	<u>14.1</u>	2.0	3.2	7.5	3.9	0.5	0.2	-	0.5	0.6
14 -	15.4	13.5	11.8	0.9	2.4	1.3	6.8	1.6	-	tr#	-
15 tr	* 2.2	0.2	2.0	-	<u>8.5</u>	0.6	4.5	1.0	18.0	0.3	-
16 3.:	0.3	3.4	0.4	0.1	4.8	1.0	-	-	<u>39.0</u>	-	0.1
17 -	5.4	1.0	0.1	-	-	tr	-	-	0.2	1.7	16.8
18 tr	* 0.6	3.8	3.7	-	6.2	tr	-	-	11.1	-	0.6
19 7.	tr tr	3.1	1.2	0.2	-	-	9.9	-	11.1	-	0.9
20 <u>38.</u>	<u>2</u> 12.5	0.3	-	-	-	8.0	0.4	-	11.5	-	4.3
21 <b>63.</b>	<u>15.8</u>	1.0	0.1	1.8	0.6	1.0	<u>19.1</u>	-	1.1	0.1	5.1
22 2.0	5 2.7	1.1	0.5	<u>62.1</u>	-	tr	15.8	4.6	0.1	15.6 <b>*</b>	0.1
23 23.	7 0.4	0.1	-	0.9	-	-	8.4	7.6	0.1	<u>59.6</u>	1.2
24 0.2	2 -	1.5	0.2	-	-	0.8	tr	0.7	-	7.5	0.1
25 18.	5 -	2.4	tr	8.7	-	0.8	15.2	14.5	0.4	0.3	-
26 0.9	0.1	5.9	-	5.6	0.3	6.7	2.0	0.7	6.1	-	-
27 tr	0.1	3.6	-	0.6	4.1	1.8	10.6	-	3.6	-	-
28 5.0	7.5	9.6	9.3	4.3	3.4	-	1.2	0.1	4.7	0.3	tr
29 <u>34.</u>	0.4	8.5	6.4	2.2	0.1	-	3.5	2.5	-	4.9	-
30 0		tr!	-	-	0.2	-	-	6.5	-	5.3	1.2
31 7.2	2	1.3		-		0.9	-		-		<u>45.9</u>
Totals 243	1 84.4	106.9	145.6	114.6	52.1	90.4	117.7	95.2	144.8	96.9	137.2
From 1st Jan 243	1 327.5	434.4	580.0	694.6	746.7	837.1	954.8	1050.0	1194.8	1291.7	1428.9
	•	•	•	•	-	-	-	•	-		
					1.5	22	22	40	4.7		4.6
Rain Days 21	21	22	22	14	16	20	22	18	17	11	16