Ansty Weather Station.

Weather statistics for 2018

TEMPERATURE ° C								
YEAR	MONTH	MEAN MAX ° C	MEAN MIN ° C	MEAN ° C	HIGHEST ° C	DAY	LOWEST ° C	DAY
2018	1	9	2.4	5.7	12.5	23	-3.2	30
2018	2	7	-1.7	2.6	11.8	19	-8.9	28
2018	3	9.2	1.1	5.1	13.5	13	-4.1	1
2018	4	14.7	6.3	10.5	27.5	19	0.9	1
2018	5	20.8	7.1	13.9	28.8	7	0.9	1
2018	6	24.1	10.5	17.3	31.3	26	4.6	22
2018	7	27.6	12.3	20	32.5	8	9.3	11
2018	8	23.4	11.6	17.5	31.7	3	5.1	11
2018	9	20.1	8.3	14.2	26	3	0.8	25
2018	10	15.4	5.3	10.4	23.4	10	-3.7	31
2018	11	11.2	4.2	7.7	15	5	-3.1	27
2018	12	10	4.1	7.1	13.7	2	-3.2	14
Annual averages 2018		16.0	6.0	11.0				
Annual averages 2018		16.3*	6*	11*				
Long term annual averages (1980 -2010)		14	6	10				

Night Frosts	55
Day Frosts	2
Annual Total Frosts 2018	57
Long term annual average total frosts (1980-2000)	50

* This is the overall mean computed from continuous real time temperature observations.

PRECIPITATION (in inches/mm)

YEAR	MONTH	TOTAL inches	TOTAL mm	MAX OBSERVED DAY	MAX OBSERVED DATE	DAYS OF RAIN OVER 0.01	DAYS OF RAIN OVER 0.1	DAYS OF RAIN OVER 1.00
2018	1	4.40	111.76	0.74	21st Jan	19	13	0
2018	2	2.12	53.85	0.70	13th Feb	9	5	0
2018	3	5.73	145.54	0.79	30th Mar	23	18	0
2018	4	3.47	88.14	0.49	11th Apr	15	10	0
2018	5	1.96	49.78	0.45	24th May	12	5	0
2018	6	0.09	2.29	0.04	14th Jun	3	0	0
2018	7	1.03	26.16	0.62	29th Jul	5	2	0
2018	8	2.39	60.71	**1.24**	26th Aug	9	5	1
2018	9	1.54	39.12	0.45	23rd Sep	7	4	0
2018	10	2.08	52.83	1.00	14th Oct	10	4	1
2018	11	5.24	133.10	1.03	9th Nov	16	12	1
2018	12	4.87	123.70	0.78	18th Nov	17	12	0
						145	**90**	**3**
Annual Total 2018		***34.92***	***886.97***					
Average long term annual total (1980 - 2010)		***35***	***889.00***					

Annual Total:		No. of Days of lying snow
Sun Days	Rain Days	
194	145	7

WIND SPEED								Humidity
		AVG SPEED		MAX GUST			DOMINANT	MONTHLY
YEAR	MONTH	mph	km/h	mph	km/h	DATE	DIRECTION	AVERAGE %
2018	1	3.1	4.99	24.2	38.96	3rd Jan	SSW	92.4
2018	2	3.5	5.64	22.6	36.39	28th Feb	NE	85.1
2018	3	3.3	5.31	25.7	41.38	2nd Mar	NE	89.5
2018	4	2.9	4.67	19.9	32.04	29th Apr	NE	87.6
2018	5	2.5	4.03	17.7	28.50	26th May	NNE	78.5
2018	6	2.5	4.03	17.0	27.37	14th Jun	NE	76.8
2018	7	2.0	3.22	17.4	28.01	28th Jul	SSE	72.5
2018	8	1.8	2.90	15.9	25.60	9th Aug	SSW	83.1
2018	9	2.4	3.86	24.6	39.61	20th Sep	SSE	85.3
2018	10	2.4	3.86	22.1	35.58	13th Oct	SE	91.8
2018	11	2.9	4.67	23.3	37.51	29th Nov	SSW	94.4
2018	12	2.2	3.54	19.7	31.72	7th Dec	SSW	95.2

Because of the sheltered nature and alignment of the coombe valley where this weather station is located and the surrounding slopes the wind direction either blows up the valley (NE) or down the valley (SW). Wind Speed in the valley is generally half that found on the tops of the slopes!

Annual Average Humidity %
86.0

MONTHLY SUMMARY NOTES	
JAN	EXCEPTIONALLY MILD MONTH; ABOVE AVERAGE RAINFALL; SNOW FELL ON JUST ONE OCCASION; SLEET TWICE; TWO OR THREE WINTER STORMS; ONLY 7 FROSTS; QUITE DULL. HIGH HUMIDITY THROUGHOUT.
FEB	A COOL MONTH: GENERALLY MILD/AVERAGE BY DAY FOR MUCH OF FEB; 22 NIGHT FROSTS = COLD BY NIGHT; V. COLD LAST WEEK; SNOW FLURRIES FELL TWICE; SLEET/SOFT HAIL 3 OCC; 87% AV RAINFALL
MAR	'BEAST FROM THE EAST' HEAVY SNOW 1st MARCH; HIGH WIND CHILL; 7 DAYS LYING SNOW (2 SESSIONS 5") HIGH WIND CHILL (-14C) 2 DAY FROSTS; 12 NIGHT FROSTS; VERY WET (5.73"); VERY DAMP (89%) LOW PRESSURE THROUGHOUT. RELATIVELY MILD OVERALL ALTHOUGH FROSTS PULLED AVERAGES DOWN.
APR	A MONTH OF CONTRASTS! MOSTLY COOL BUT 3RD WEEK EXCEPTIONALLY WARM; NO AIR FROSTS; WELL ABOVE AVERAGE RAINFALL; COOL LAST WEEK: SPRING DELAYED.
MAY	MOSTLY WARM AND SUNNY; BELOW AVERAGE RAINFALL; COOL NIGHTS AND VERY WARM DAYS; HIGH HUMIDITY THROUGHOUT; SUDDENLY BECAME SUMMER IN 2ND WEEK! 'SHORT SPRING'.
JUN	V VERY WARM THROUGHOUT; EXCEPTIONALLY DRY; EXCEPTIONALLY SUNNY LEADING TO POOR GRASS GROWTH. SOME FARMERS BECAME WORRIED.
JUL	SUB TROPICAL AIR PREDOMINATED. EXCEPTIONALLY WARM, DRY AND SUNNY FIRST HALF OF MONTH; COOLER AND DAMPER FOR A WHILE; HALF AVERAGE RAINFALL – STRAW COLOURED LANDSCAPES.
AUG	EARLY AUGUST EXCEPTIONALLY HOT AND DRY BUT MORE RAIN FRONTS IN THEREAFTER; STILL HAD 21 DAYS OF SUNSHINE. LESS EXCEPTIONAL TEMPERATURES AFTER 1ST WEEK.
SEP	BELOW AVERAGE RAINFALL; TEMPS ABOUT AVERAGE. 20 DAYS OF SUNSHINE. A COOL LAST WEEK IN SEPTEMBER WITH 2 OR 3 GROUND FROSTS.
OCT	FIRST 12 DAYS DRY; A WET AND WINDY SPELL IN MID OCTOBER (STORM Callum); TEMPERATURES ABOUT AVERAGE; 3 SHARP FROSTS AT END OF MONTH. A HUMID MONTH; 16 DAYS OF SUN
NOV	NEAR AVERAGE TEMPERATURES; 7 NIGHT FROSTS; CLOUDIEST MONTH SINCE APRIL; WINDY AROUND NOV 29TH; A WET MONTH AND EXCEPTIONALLY HUMID.
DEC	QUITE DULL; QUITE A WET MONTH; EXCEPTIONALLY MILD SPELLS; ONLY 4 FROSTS; EXCEPTIONALLY HUMID: VERY LOW EVAPORATION.

And the heat goes on!

2018 looked as though it would be yet another year with very little in the way of 'proper snow'. Indeed January and February saw just one day when we had a 'smattering' of snow that didn't lie. And then came the 'Beast from the East' – not once but twice!

True, February was a cool month with 22 night frosts – but the last week saw a noticeable cooling down with a run of sharp frosts coupled with a bracing easterly wind rushing in all the way from Siberia. This cold wind was nicknamed 'The Beast from the East'. March 1st (allegedly the first day of spring) dawned with powdery white granular snow drifting around and a brutal wind chill; another period of heavier (about 5 inches) snow fell (with freezing rain added in) which took us into March 2nd. Both days never saw the thermometer climb above 0 C. A day later, a slow thaw set in. There then followed a mild, damp interlude until another blast of cold air swept in. Nicknamed 'Mini Beast from the East' another 5 inches of snow arrived with another run of sharp frosts. Not as bitter as the first cold spell…but enough to delay spring still further. The end of March remained cool, wet and dreary and this weather continued well into April. 'Coolish' nights and cloudy damp days further stalled the arrival of spring.

In late Mid-April we suddenly had 4 days of very warm wall to wall sunshine before reverting to cool damp conditions. Nature just didn't know how to take all of this. So it waited. There was little sign of spring 'greening' up as yet! We didn't know, though, but those four long sunny days were a sign of things to come.

May 1st dawned very cool and cloudy but brightened up for Ansty May Day in the afternoon. A 'slack' block of high pressure to the south west of England started funnelling in very warm sub-tropical air. The slack block of high pressure continued to establish itself near the British Isles and directed very warm sub-tropical air that originated over the mid-Atlantic Ocean over us. The rest of May bar 2 or 3 days was largely sunny and warm interspersed by a few short spells of rain. An unusual observation though, was that the air humidity remained remarkably high throughout. Accordingly, the spring vegetation growth (trees, flowers, shrubs) was a veritable explosion – but oddly, not so the grass in famers' fields though: it was almost as if the grass was fearful of the exceptionally bright sun. What was very noticeable in our local area was occurrence of many unusual wild flowers in the ancient meadow fields. The dry sunny weather after the cold wet spring seemed to encourage the germination of long dormant seeds, often growing in places where they have rarely if ever been seen – and what a fantastic spectacle it all was for those who looked!

This sunny and bakingly hot regime was to continue throughout June (exceptionally dry), July into the beginning of August with nearly a score of days when the temperature was close to or above 30 C. The farming landscape began to look absolutely parched – turning a straw colour - with grass not growing at all and cereal crops looked stunted (although it turned out that yields were still very good). Grazing animals had to be fed hay and supplements because the grass 'crop' failed.

There was plenty of water however: streams continued to flow and ponds remained fairly full (unlike 1976 – the last comparable summer, when there was a serious drought). Unfortunately, crop fields suffered because the top soil layers were baked dry and yet dews were recorded almost throughout the summer! UK temperatures for June to August 2018 reveal that this year is top of the league table in records dating back to 1910, along with 2006, 2003 and 1976, all of which are within 0.03C of each other.

By mid-August, more normal conditions resumed but it still remained quite warm well into September, although the last week of September saw low night time temperatures, whilst the days remained well above average.

Temperatures were still above average during early October before storm Callum brought a really windy and wet spell for most of us – especially to the north of the country. The last week of October was quite sunny but there were some notable frosts.

November was truer to type: it was very wet with a couple of short cold spells with a few frosts balanced with longer very mild spells. The month was also exceptionally wet, humid and quite cloudy. December was little different: again mostly very mild and wet with one or two short cold spells – although the last week saw 'drier' conditions – in that it did not rain.

Provisional Met Office statistics for the UK suggest that 2018 was another 'warm' year. Our local Ansty figures confirm this with an average mean of 11 C or 1 C above the 1981-2010 range. 1 C might not seem a lot but when looking at climate statistics over time, but once again, it is. If you take the continuous real time computed figures then the average mean is about 1 C above the 1981-2010 range. You 'takes' your choice but the trend is the same. The 10 warmest years since 1910 have all occurred after 2000. The warmest year ever recorded was 2014. Like 2017 before it, 2018 looks set to join the list to make it eleven.

2018 was the year of Heatwaves, Flooding, Droughts, Hurricanes and Typhoons, Wildfires ….

The continuing rise of Atmospheric Humidity and the unpredictability of weather events

This year has again highlighted something most people don't really notice or are not aware of. But it has been a noticeable feature of the last decade or more. My figures show that the relative humidity of our local atmosphere appears to have increased. It affects the way we feel – especially on hot summer days. We use the word muggy to describe such a day. Humans are very sensitive to humidity.

I recall back in the 1950s and 1960s that although it rained quite frequently things soon dried up after the rain. Washing actually dried on the line. It was also cooler!

From the late 1960s until the early 2000s there was a definite downward trend to drier conditions overall (that is, lower relative humidity readings) reaching a low point in the 1990s. Indeed gardening experts started to encourage us to plan our planting to survive drought conditions….

But by the early 2000s this drier trend has been reversed and in the last decade humidity readings have risen noticeably along with increasing temperatures. One of the most interesting phenomenon I have noticed this year is just how 'damp' the air was even on so called 'dry' summer days. Today there seem to be quite a few 'dry' days when washing just doesn't seem to dry outdoors: the air was saturated with 'humidity'!
This year I started recording the mean relative humidity percentage every day and compiled the figures for the whole year. The annual average RH percentage was 86%. I cannot find any comparable figures but anecdotally this seems very high bearing in mind the number of sunny days we had: 194 and even taking on board the fact that this local weather station is located in a wooded area although the station itself isn't under any trees.

It wasn't humidity that troubled our local farmers in 2018 though, when trying to decide when to harvest crops. So much warm sun had stunted the crop growth and it also ripened very early. But harvesting conditions were near perfect and yields were surprisingly high despite the poor growth.

My relative humidity figures suggest the 'damp' trend looks set to continue and (if the science is right) will manifest itself in all sorts of ways.

For instance this year we again saw the 'thuggish' growth of many wild and cultivated plants; particularly broad leafed weeds, nettles, many grasses, brambles, hogweed, Japanese knotweed, rhododendrons. Some hedges have become festooned with the stuff.

Trees and hedges again put on phenomenal growth this year: yet management of forests, copses, hedgerows and verges has continued to be really poor or non-existent. No wonder bugs and pathogens are taking advantage and causing mayhem! Even some of our own local woodlands are now in a dire state. If you don't believe me, walk through any spinney, copse; or take a close look at the hedgerows lining our lanes and you will see many fallen branches, 'die back' and gappy hedges.

Our parish small meadows are becoming wetland meadows. Then there are more mosses on paths, lanes, walls and roofs; again fungi grew in abundance in the recent autumn (especially honey fungus) and waterlogged ground has become common where nothing dries out between mid-October and March even when the water table is still quite low. Again have you noticed?

Carbon Emissions …

There are many reasons for this but it would seem that increasing carbon dioxide levels in the atmosphere which sustains vegetation growth has also led to the so called 'greenhouse effect' – trapping radiated heat resulting in rising temperatures (here and worldwide) which means the air can hold much more water vapour (and cloud). This coupled with the increasing levels of nitrates in the air and ground (from chemical fertilisers, vehicles and other industrial processes) has seemingly led to this increased vegetation growth.

If this is a continuing trend then without a proper plan it may well become a huge and expensive issue for all of us not so very far into the future.

The 2018 United Nations Climate Change Conference was the 24th Conference of the Parties to the United Nations Framework Convention on Climate Change, also known as the Katowice Climate Change Conference. It was held between 2 and 15 December 2018 in Katowice, Poland. Nearly 200 countries have signed up to a pledge to drastically cut carbon emissions ….

With a high likelihood of a new El Niño forming early in 2019, the coming 12 months is expected to push the current record close, with the UK Met Office predicting that the global average temperature for 2019 will likely be 1.10C, above the pre-industrial average period from 1850-1900.

It certainly looks worrying. Failure to tackle global warming and climate change could prove to be catastrophic within 100 years.

Further reading: (courtesy of the BBC and Met Office but there are many other sources that you could search for).

Climate Change in Seven Charts

UK's 'Tropical Days'

Past weather events (2018) Met Office