

Barn Report : Wind

Report Page

The report page typically shows wind speed averaged over the relevant period in mph.

For example, this shows an average wind speed of 7 mph over the last 30 days.

	Ext1	Wind
1	10.1	16
7	11.3	13
14	11.2	9
30	11.1	7
Current Batch	11.1	7

Chart Page

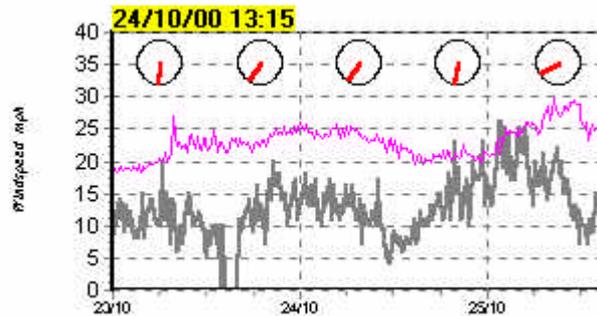
The chart page shows wind speed and direction.

The grey line shows wind speed (usually sampled at 15 minute intervals).

The clock face shows the average direction in its particular "slice" of the chart. For example, this chart shows that the average direction in the first half of 23rd October was due south, but it shifted around to SSE in the second half.

For exact information on direction and changes of direction, look at the purple line - this shows direction in degrees. (In this case, it's about half way up the chart, which means about 180°, which means south.)

Because 360° (top) = 0° (bottom) = due North, you'll find vertical lines on the chart when it moves either side of due North.



Notes on Interpretation

- 1 The direction shown is not always true direction, since it depends on whether the installer has oriented the mounting pole and wind vane correctly. For example, it might just show direction with respect to the buildings.
- 2 A wind speed of 1 mph is .447 metres per second, or 88 feet per minute. For comparison, an inlet speed of 4 to 5 m/s (around 800 to 1000 fpm) is the air inlet speed you would expect in a controlled inlet fan building - about 10 mph. Air travels through a typical fan at around 15 to 20 mph, so when the wind speed is that speed, it is as if the building was downstream of a bank of fans stretching to the horizon.
- 3 In fan buildings, check whether ventilation rate and/or heating used changes according to wind speed when outside temperature is constant. If it changes significantly, the building may be wind prone - it may need better wind protection. If not, it's well protected already.
- 4 In ACNV buildings, the "ventilation effect available" is a product of wind speed and temperature difference between inside and outside. So 5 mph when it is 10°C cooler outside is the same as 10 mph when it is 5°C cooler.
- 5 In particular, look at the effect of temperature differences within the building (between sensors) when wind is at different angles to the building.