

Winter Chill 2018



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Winter Chill accumulation for 2018 is tracking along the warmest 10% of years for Pome growing districts in WA. This year our first chill portion was accumulated on 10^h April at Manjimup and followed by a very warm April and May with any chill that was accumulated during the night was lost during the warm Autumn days. By late-July we have accumulated 46 chill portions at Manjimup, this is below average for Manjimup. While at the Bickley Bureau of Meteorology weather station site has accumulated the 70% of the average winter chill.

Some locations have almost received 70% of the average chill portions, while others need some more chilling. The dormancy breaker trial that was undertaken in 2016 found that calculating the spray date to get a compacted flowering was most effective when spraying after receiving 70% of the average winter chill.

Table 1. Total accumulated dynamic chill portions for 2018 with previous years chill accumulation.

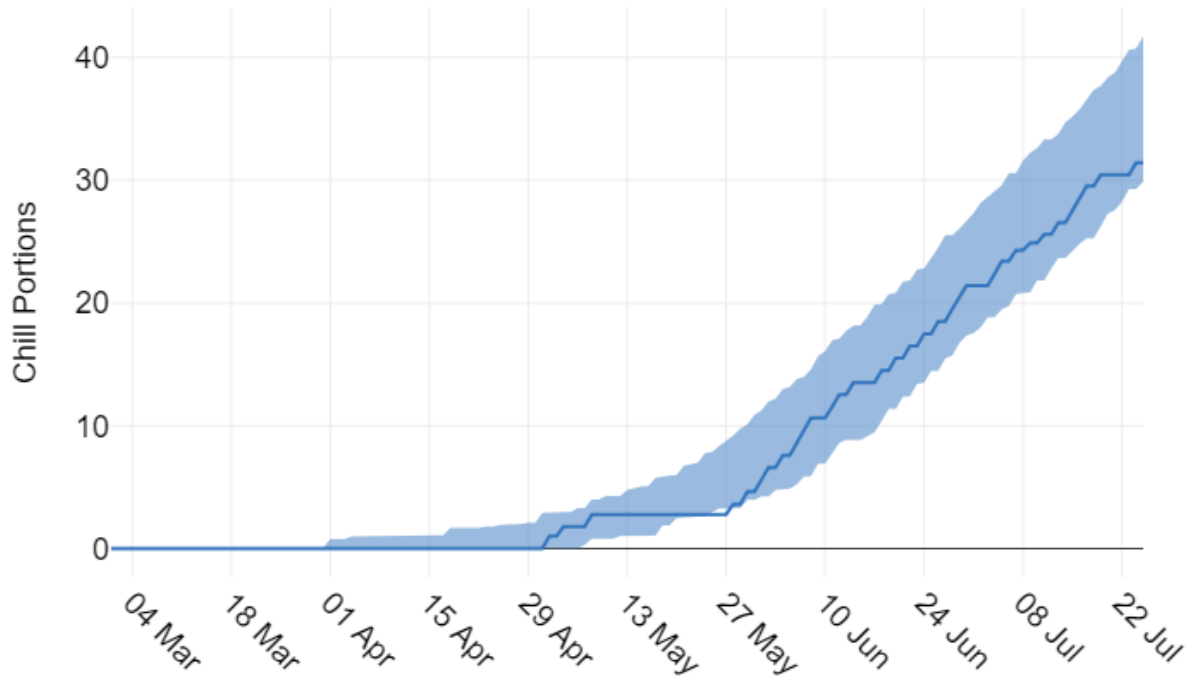
	Total Winter Chill Portions							
	@ 25/7/2018 BOM weather stations	1 March - 31 August DPIRD weather stations					Average CP	70% of average
Location	2018	2017	2016	2015	2014	2013		
Donnybrook	31	51	67	50	45	52	60	42
Manjimup	46	65	64	56	54	62	69	48.3
Newlands		55	75	58	45	61	68	47.6
Nannup		61	68	55	46	55	69	48.3
Pemberton	38	70	76	58	53	57	62	43.4
Bickley	38	50			53	53	50	35

The current model used to calculate winter chill is the Dynamic Chill Model. It calculates chill as chill portions based on hourly temperatures. The optimum chilling temperature starts at 6°C and effectiveness tapers to zero at -2°C and 14°C. Temperatures above 14°C can negate previously accumulated chill. Winter chill calculations start on the 1st March and finish on the 31st August using daily minimum and maximum temperatures.

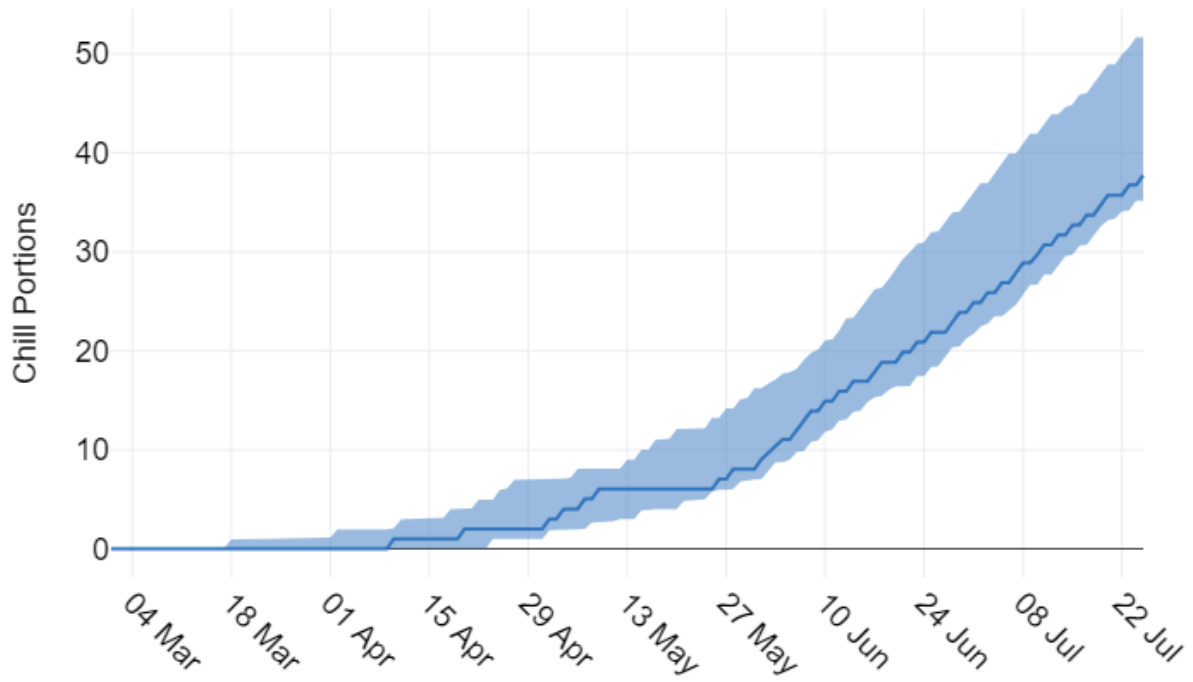
If you would like the calculations done for chill hours or units, or to update the chill portions calculation at anytime click on the following link;

<https://hort-science.shinyapps.io/ChillCalculator/>

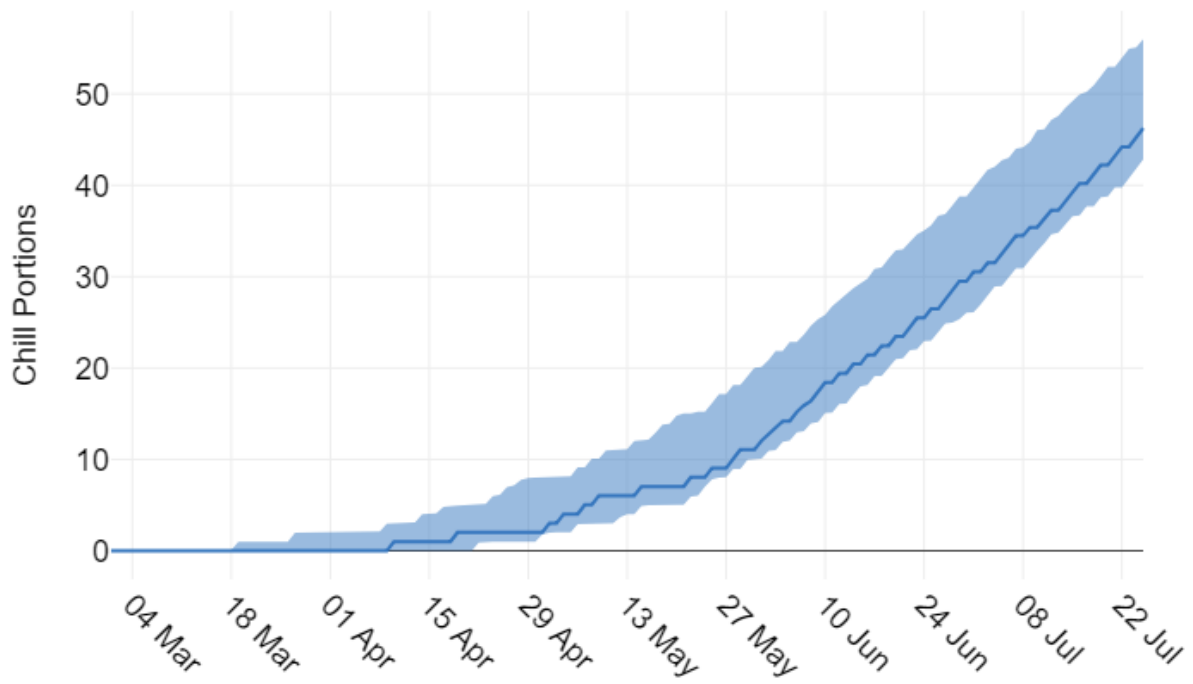
Donnybrook Chill Accumulated (25 Jul 2018): 31 Chill Portions



Pemberton Chill Accumulated (25 Jul 2018): 38 Chill Portions



Manjimup Chill Accumulated (25 Jul 2018): 46 Chill Portions



Bickley Chill Accumulated (25 Jul 2018): 38 Chill Portions

