

# Strawberry growers to receive targeted climate information

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Climate Services for Agriculture (CSA) is a national project involving the Bureau of Meteorology, CSIRO and FarmLink Research, designed to help growers recognise trends and conditions that may impact the way they operate on farm.

The CSA platform allows growers to search weather and climate indices by **location** and **commodity**, to assist them with on-farm decision making, and planning for climate-related impacts to their enterprise.

You can see a prototype of the tool by visiting [climateservicesforag.indraweb.io](http://climateservicesforag.indraweb.io)

While climate information for all major agricultural and horticultural commodities will ultimately be made available, strawberries are the first berry to be included. The CSA development team plan to add strawberries early in 2023. The information will include 60 years of historical climate data, as well as future forecasts for a medium-to-long-term time horizon.

The addition of strawberries to the platform will allow growers to access climate data specific to a strawberry-growing enterprise. This information might include, for example, trends in day/night temperatures and light during flower bud initiation and fruit development, winter chill, evapotranspiration, rainfall distribution, and frost incidence.

To do this, the CSA team needs to speak directly to strawberry growers and agronomists, to understand the industry's climate and weather challenges and how they manage them. These discussions take 45-60 minutes via video call, at a time and date nominated by the grower.

**If you are a strawberry grower, the CSA team wants to hear from you. To participate, or find out more, contact Sarah Clarry on 0419 165 771 or email [comms@farmlink.com.au](mailto:comms@farmlink.com.au)**

Growers of other berries are also welcome to get in touch, as more berries will be added to the platform throughout the year. The information that growers provide will inform the development of the platform and ensure the right climate information is available.



**The CSA engagement team meeting with Costa Group's Anurdha KaravitaArachchi and Olivia Bell, and WA Berry Industry Development Officer Helen Newman to discuss climate-related issues for blueberry production. Indices presented on the platform for the various commodities are the result of extensive industry consultation.** Photo credit: Sarah Clarry

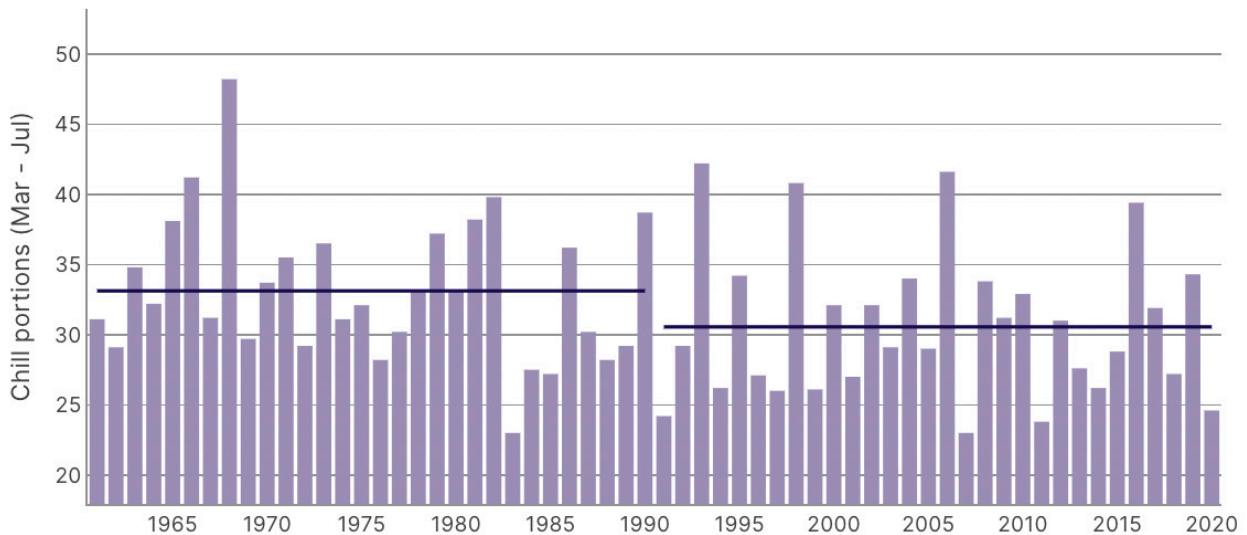
## Example data sets from the platform

The Climate Services for Agriculture platform delivers commodity and location-specific climate data for growers. Growers can view historical data sets relevant to their location and or crop. Figure 1 is a crop-specific example, showing 60 years of data for chill portions for Albany, WA based on the chill requirements of an almond crop. Figure 2 is a general location example and shows 60 years of annual rainfall data for Wanneroo, WA.

The Climate Services for Agriculture platform also allows growers to explore how climate change will impact a particular location and or crop. Figure 3 shows historical and projected annual rainfall for Wanneroo, WA and Table 1 shows historical and projected heat risk for the same area. Table 2 is a crop-specific example showing historical and projected extreme years (high temperatures  $\geq 37^{\circ}\text{C}$  from fruit set to fruit drop) for a citrus crop in Wanneroo, WA.

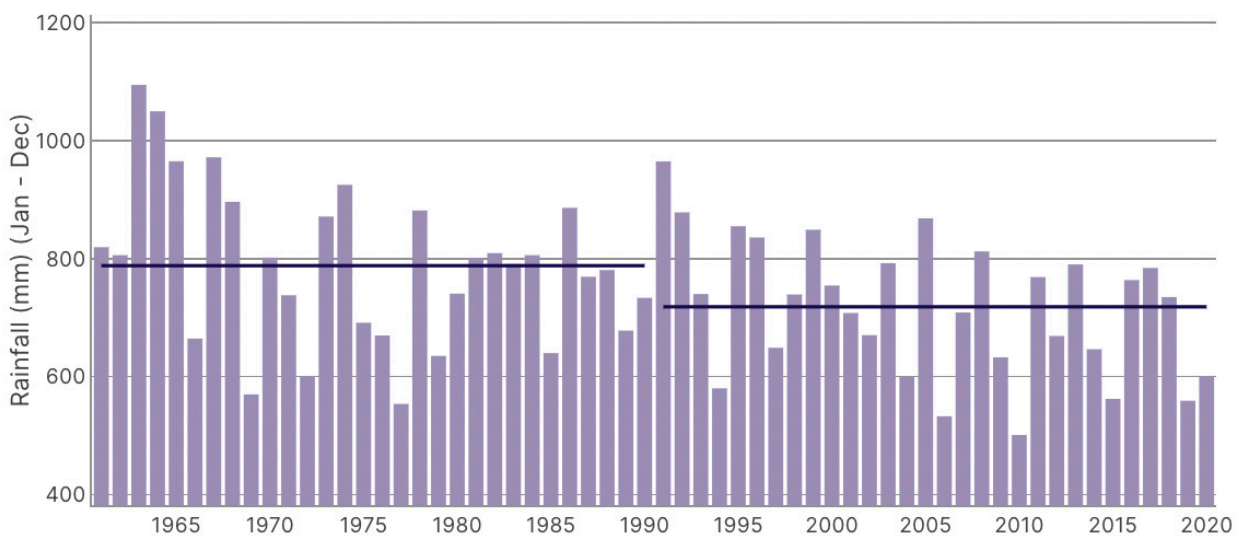
**Figure 1. Chill portions (Mar - Jul) for Albany, WA for an almond crop (1961-2020).**

Past temperature data is sourced from the Bureau of Meteorology's Australian Gridded Climate Data (AGCD) dataset.

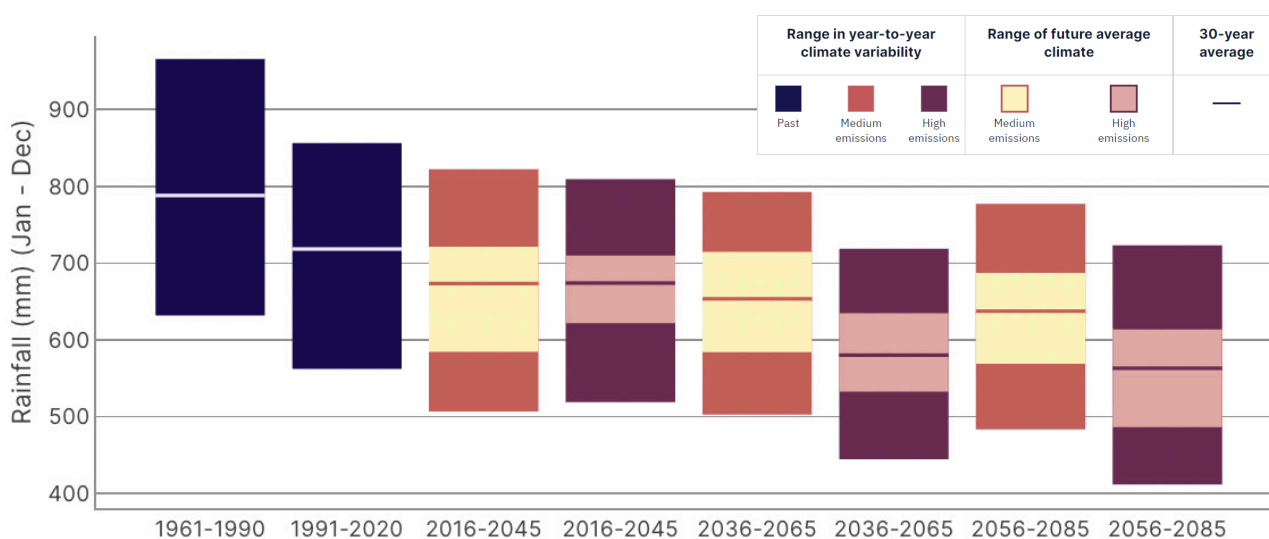


**Figure 2. Annual rainfall data for Wanneroo, WA (1961-2020).**

Past rainfall data is sourced from the Bureau of Meteorology's Australian Gridded Climate Data (AGCD) dataset.



**Figure 3. Historical and projected annual rainfall for Wanneroo, WA).**



**Table 1. Extreme years - historical and projected annual heat risk for Wanneroo, WA.**

This table shows how many years (out of 10) have fallen or are projected to fall below or above 35°C under a medium greenhouse gas emissions scenario.

Year range	Number of years with annual heat risk below 13 (days Tmax ≥ 35°C)	Number of years with annual heat risk above 25.4 (days Tmax ≥ 35°C)
1961-1990	1.3 in 10 years	2 in 10 years
1991-2020	0.3 in 10 years	1 in 10 years
2016-2045	0.1 in 10 years	4.4 in 10 years
2036-2065	0 in 10 years	6.3 in 10 years
2056-2085	0 in 10 years	7.8 in 10 years

**Table 2. Extreme years - historical and projected high temperatures from citrus fruit set to fruit drop (mid-October to late December) for Wanneroo, WA.**

This table shows how many years (out of 10) have fallen or are projected to fall below or above 37°C under a medium greenhouse gas emissions scenario during the mid-October to late December period.

Year range	Number of years with high temperatures at fruit set to fruit drop below 0 (days Tmax ≥ 37°C)	Number of years with high temperatures at fruit set to fruit drop above 4 (days Tmax ≥ 37°C)
1961-1990	0 in 10 years	0.3 in 10 years
1991-2020	0 in 10 years	0.7 in 10 years
2016-2045	0 in 10 years	2 in 10 years
2036-2065	0 in 10 years	2.8 in 10 years
2056-2085	0 in 10 years	3.3 in 10 years

**Acknowledgements:** Climate Services for Agriculture is funded by the Department of Agriculture, Fisheries and Forestry, through the Future Drought Fund. For more information, visit: <https://www.agriculture.gov.au/agriculture-land/farm-food-drought/drought/future-drought-fund/climate-services>