



Climate change

What's the difference between weather and climate?

Weather is a specific event that happens over a short period and can change frequently, for example a thunderstorm on Saturday, and cold weather on Sunday.

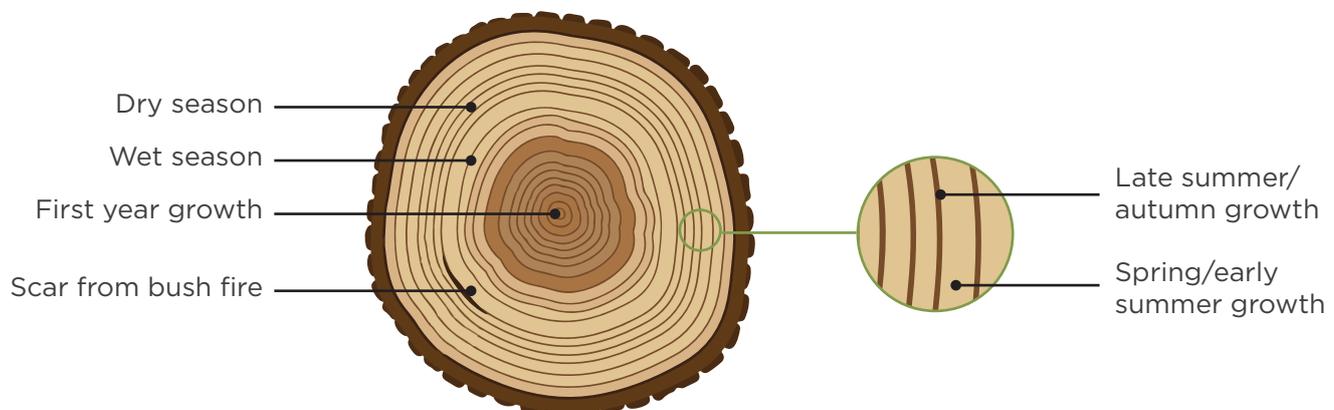
Climate is what the weather does on average over a long time i.e. more than 30 years.

What can trees tell us about climate change?

Scientists can learn about our past climate by studying a tree's rings.

You can see these rings when looking at the top of a freshly cut tree stump.

They indicate a tree's age and what the weather was like during each year of the tree's life. The light-coloured rings are wood that grew in the spring and early summer. The dark rings are wood that grew in the late summer and autumn. One light ring plus one dark ring equals one year of a tree's life.



In warm wet years, tree rings usually grow wider. In cold and dry years, they are thinner. When a tree is stressed, in drought for example, it might hardly grow at all.

Very old trees can offer clues about what the climate was like long before measurements were recorded.

Fact sheet 2



How can plants tell us that climate is changing?

Plants that used to flourish in a place either might not grow there any more or they might flourish, depending on what conditions they enjoy.

How is Castlemaine's climate expected to change?

Our likely future includes increased hotter summer days, less frosts and total annual rainfall, with less falling in spring. However, downpours will get more intense. This means that plants selected to grow here in future will be from climates already like this. Efforts will be made to protect trees and plants, deemed significant and rare, already growing here.

What plants will flourish in these gardens as the climate changes?

We don't know exactly. However botanical gardens are a great place to demonstrate how gardens might adapt to drier conditions. Home gardeners from this region can visit to see which plants flourish. It's planned to increase the diversity of plants here. Plants from California, South Africa, southern South America, the Mediterranean and south-western Australia will be selected as low-water ornamental plants. Oaks, pines and penstemons able to tolerate the changing climate will be encouraged.