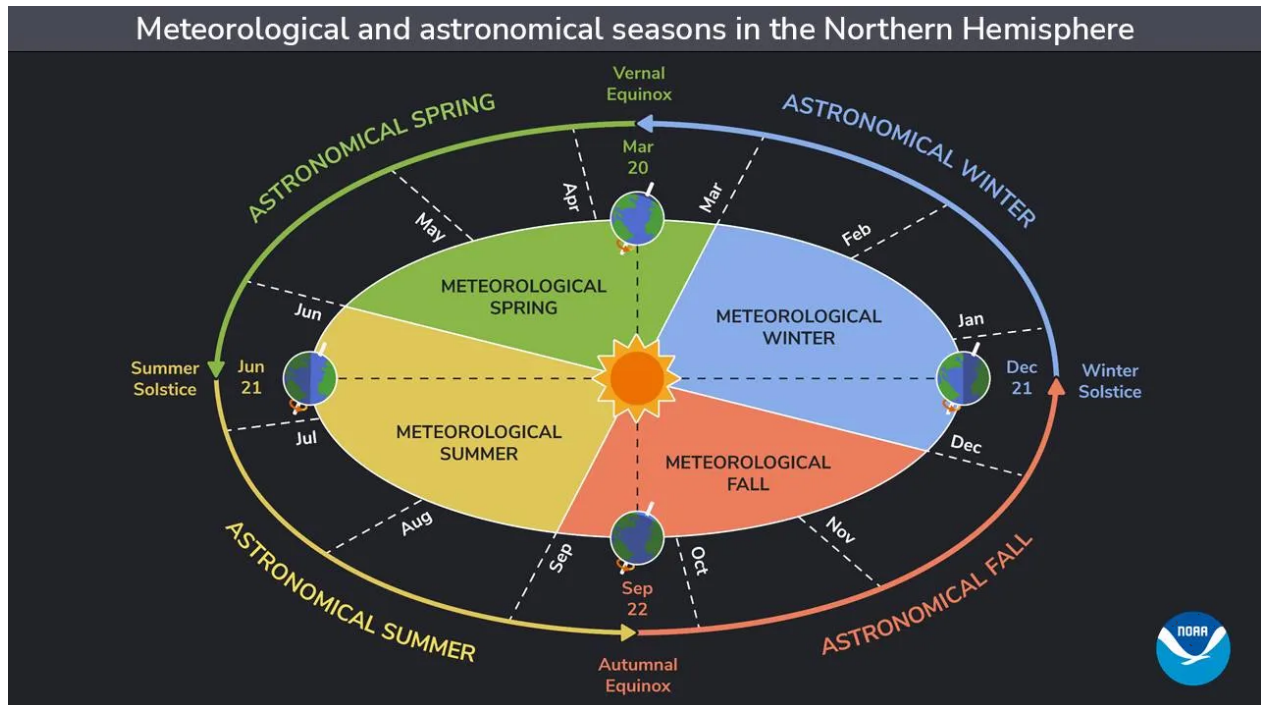


Annual cycle

By Lennart Kiil



The seasons in the Northern Hemisphere. The Earth's axis is tilted, so each hemisphere in turn faces more and less towards the Sun through the year.

NOAA. Public domain. [Wikimedia Commons](#).

Progression of the seasons through the year.

If there was no climate change then a month in one year should be similar to the same month in another year with regard to weather and climate in any given region.

Due to accelerating climate change in recent years, spring has shifted forward and now occurs earlier in the calendar year than a few decades ago. This shift has led to longer pollen seasons in many countries in temperate regions.

The annual cycle is caused by Earth's changing position in orbit over the course of the year. This position influences incoming solar radiation in different regions (see [insolation](#).) The distribution of sunlight controls winds and drives the seasonal climate system.

The annual cycle is normally estimated from observational data or model output by taking the average of all January months, all February months, all March months and so on.

Observational and model data can be used to estimate the amount of change in the annual cycle in the future.

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