What brings the first rains of the season?

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Warm temperatures will help both weed and crop growth. Early weed control will minimize competition for moisture and nutrients.

This information has implications for the type and quantity of wheat varieties which farmers should keep on hand. Long season varieties such as Spear and Dagger do have potential in these low rainfall areas, but they should normally constitute a small portion of retained seed. Most wheat kept should be mid season varieties such as Eradu, Gaminya and Schomburgk and short season varieties such as Gutha, Kulin, Wilgoyn and Bodallin.

Reference

_Journal of Agriculture, Western Australia_ **30** 26-43 (various articles). ☐

![Satellite photo of a tropical interaction with a mid latitude cold front (in a long wave trough). Tropical rainfall alone can lead to enough rain in April for seeding to start. The weather pattern shown here is more common in winter. Photo: Bureau of Meteorology.](image)

**Figure 4.** The delay in planting, if the first planting opportunity is missed, plotted against the day of the first sowing opportunity.

**WHAT BRINGS THE FIRST RAINS OF THE SEASON?**

By Ian Foster, Climatology Research Officer, Division of Resource Management, South Perth

There are two major sources of rainfall over south-western Australia.

One is from upper atmospheric disturbances, decaying tropical cyclones or heat troughs. These sources bring water vapour from the tropics and can generate localized heavy rain from thunderstorms.

The other source is from cold fronts and mid-latitude low pressure systems to the south of Australia. These sources generally transport water vapour from the southern Indian Ocean, with some tropical air sometimes being drawn southwards ahead of the fronts.

Tropical rainfall generally occurs during summer and autumn. An early seasonal break, that is rain during April, is most commonly of this type.

The northern, central and eastern agricultural regions are more likely to be affected by such disturbances than the south coast, although widespread rains are possible from persistent systems.

In years when the season breaks in or after May, the opening rains come from the first significant cold fronts to cross the west coast. Tropical or upper atmospheric disturbances are generally absent during April in those years.

So, early seasonal breaks are characterized by tropical or upper level disturbances and later breaks are caused by the first cold fronts after May.