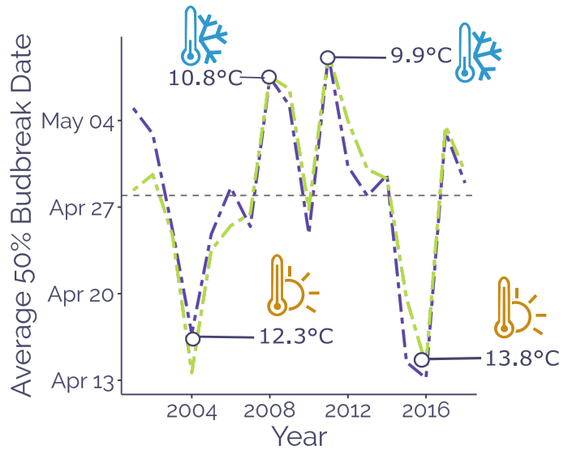
Winegrape Phenology in the Okanagan Valley

Historical trends in the phenology of winegrapes in the Okanagan Valley, BC

Budbreak

When the first green leaf tips are showing in early spring (Eichhorn-Lorenz Stage 4)

Budbreak trends over time

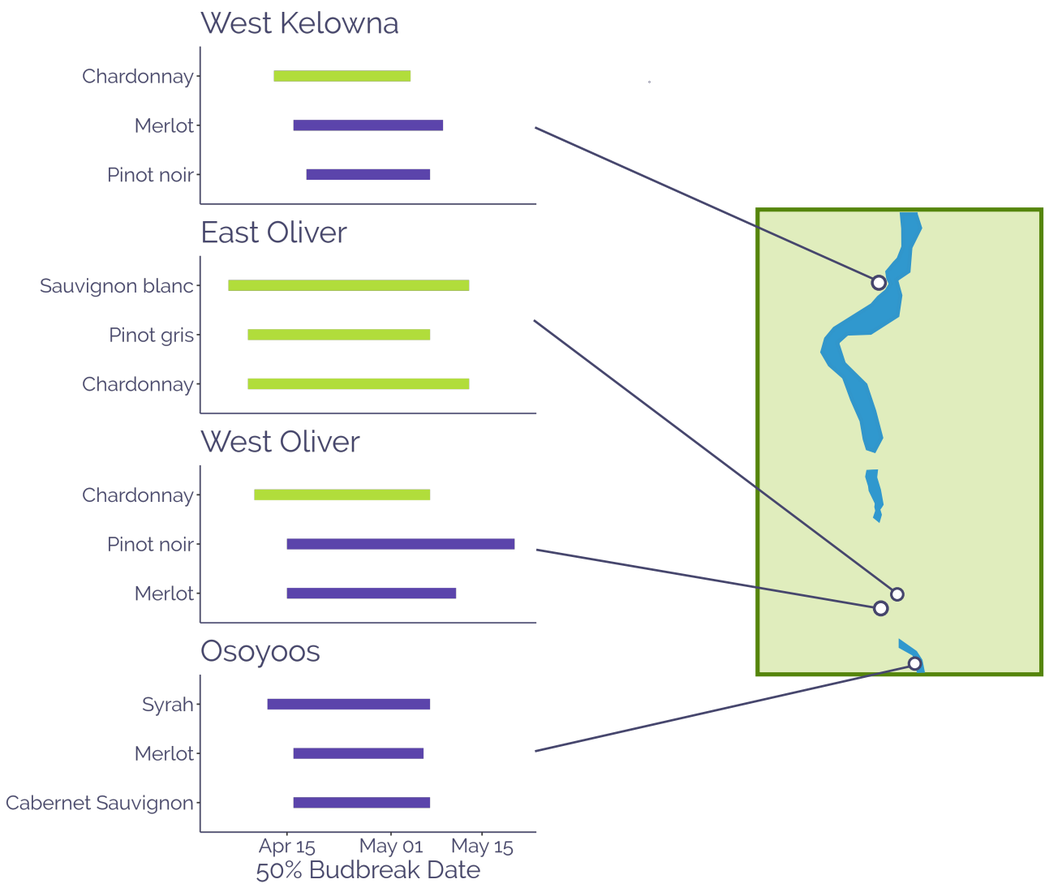


Winegrapes break bud in April and May in the Okanagan Valley. Budbreak dates varied between 2002 and 2018 by up to 3 weeks.

This graph shows the average budbreak dates across sites for Merlot (purple line), Chardonnay (green line) and the overall average across all sites and years (horizontal grey line), with average daily temperatures in April and May in Penticton, BC, shown for extreme years. Both Merlot and Chardonnay break bud earlier during warmer years (2004 and 2016) in comparison to cooler years (2008 and 2011).

Differences across the Okanagan Valley

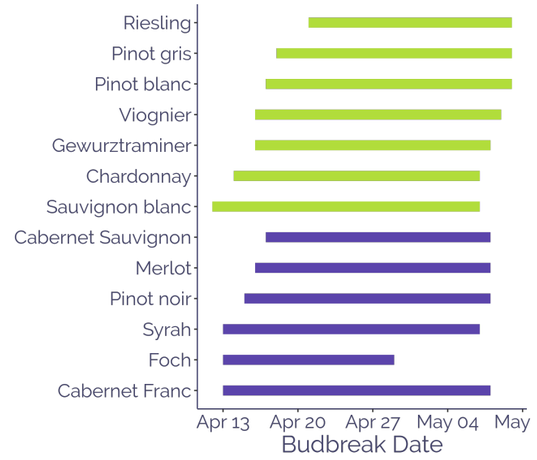
Budbreak dates vary across the Okanagan Valley, but less so than between years or varieties. Below are budbreak ranges for commonly grown varieties in vineyards at each location.



Varieties have different budbreak date ranges

Varieties have different budbreak date ranges, as shown for a selection of commonly grown varieties.

Sauvignon blanc, Syrah, and Cabernet Franc are the first grapes to break bud in early spring, and they break bud over a longer period. Foch also breaks bud early, but over a shorter period of time. Riesling is the last variety to break bud.



Project information

Data for this project was generously donated by Arterra Wines Canada, Quails' Gate Winery, and Sebastian Farms. We analysed historical phenology data for vineyards spanning companies and locations to compile historical trends. All bars displaying date ranges show the date where 10% to 90% of vines had reached 50% budbreak.

Additional factsheets on growing degree days, Brix and more to come. For further information please visit ***stateofwine.org***.

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