

2017 - 2018 Winter Grape Bud Hardiness Okanagan Valley BC

Variety	Location	sample day	Avg LTE/vine (Nov 7,8)	Avg LTE/vine (Nov 21,22)	Avg LTE/vine (Dec 5,6)	Avg LTE/vine (Dec 19,20)	Avg LTE/vine (Jan 2,3)	Avg LTE/vine (Jan 16,17)	Avg LTE/vine (Jan 30,31)	Avg LTE/vine (Feb 13,14)	Avg LTE/vine (Feb 27,28)	Avg LTE/vine (Mar 13,14)	Avg LTE/vine (Mar 27,28)	Avg LTE/vine (Apr 3,4)
Cabernet Franc	Oliver east	Tues	-20.9	-20.6	-23.4	-23.3	-25.8	-23.2	-23.5	-23.7	-23.3	-21.6	-16.8	
Cabernet Franc	Black Sage	Tues	-21.1	-20.5	-23.4	-22.2	-25.7	-21.6	-22.8	-24.0	-23.2	-21.6	-16.0	
Cabernet Franc	Black Sage	Wed	-20.1	-19.4	-22.3	-22.4	-25.1	-23.1	-22.3	-22.6	-22.5	-19.2	-11.8	
Cabernet Franc	Osoyoos, southeast	Wed	-19.9	-21.7	-22.6		-26.8		-23.1	-23.4	-23.2	-20.2	-14.9	
Cabernet Franc	Osoyoos, north	Wed	-19.7	-21.1	-21.6		-23.6		-23.3	-22.4	-22.6	-19.6	-16.4	
Cabernet Sauvignon	Osoyoos northeast	Tues	-19.8	-20.5	-22.6	-22.9		-23.2	-22.8	-23.1	-23.4	-22.5	-17.8	
Cabernet Sauvignon	Osoyoos northeast	Tues	-17.7	-18.8	-21.1	-22.1		-21.5	-22.3	-21.4	-22.3	-20.7	-17.7	
Cabernet Sauvignon	Black Sage	Tues	-19.3	-19.1	-21.5	-21.9	-23.6	-22.3	-21.4	-22.3	-22.4	-20.2	-17.3	
Cabernet Sauvignon	Osoyoos, southeast	Wed	-20.0	-20.3	-21.5		-26.0		-22.9	-22.5	-22.7	-20.4	-17.2	
Chardonnay	OK Falls, east	Tues	-21.5	-22.0	-24.0	-23.0		-24.0	-22.4	-23.6	-23.3	-21.8	-15.7	
Chardonnay	Oliver east	Tues	-22.2	-22.3	-24.3	-23.9	-25.7	-23.9	-22.4	-23.7	-23.4	-21.2	-15.0	
Chardonnay	Black Sage	Tues	-21.9	-22.0	-23.9	-24.0	-25.3	-23.4	-23.1	-24.3	-23.9	-21.4	-17.0	
Chardonnay	Naramata bench	Tues	-22.1	-22.1	-23.3	-22.5	-25.2		-23.0	-23.8	-23.9	-21.8	-17.5	
Chardonnay	Osoyoos, southeast	Wed	-22.1	-22.8	-24.3		-25.8		-23.4	-23.6	-24.1	-20.0	-15.3	
Chardonnay	Oliver, south	Wed	-21.9	-21.9	-23.0	-24.6	-25.1	-23.3	-22.7	-22.5	-22.3	-18.6	-14.6	
Gewurztraminer	OK Falls, west	Tues	-19.7	-20.5	-22.9	-22.5	-23.2	-21.6	-21.7	-21.4	-21.8	-20.2	-17.7	
Gewurztraminer	Oliver east	Tues	-19.7	-20.4	-23.1	-22.0		-21.9	-22.0	-22.2	-22.4	-20.7	-17.8	
Gewurztraminer	Kelowna	Tues	-18.8	-19.1	-21.1	-21.4	-22.6	-22.4	-21.8	-21.7	-21.3	-19.8	-16.2	
Malbec	Osoyoos, north	Wed	-21.3	-20.0	-21.3		-25.8		-20.6	-22.3	-22.2	-20.2	-16.9	
Merlot	Osoyoos northeast	Tues	-19.8	-20.3	-22.4	-22.3	-24.2	-21.9	-22.3	-23.0	-22.5	-21.4	-17.1	
Merlot	Black Sage	Tues	-20.3	-20.9	-22.1	-21.4	-23.6	-20.1	-21.7	-21.6	-22.2	-21.0	-16.4	
Merlot	Osoyoos northeast	Wed	-21.1	-22.2	-23.9	-23.7	-24.9	-24.0	-23.9	-23.5	-23.1	-20.6	-16.8	
Merlot	Osoyoos northeast	Wed	-20.3	-21.4	-22.8	-23.0	-25.0	-22.4	-22.3	-23.0	-23.2	-20.6	-16.2	
Merlot	Osoyoos northeast	Wed	-21.1	-21.5	-22.5	-22.9	-24.5	-22.8	-23.4	-23.0	-22.8	-21.0	-16.7	
Merlot	Osoyoos northeast	Wed	-20.6	-21.1	-23.1	-23.5	-25.2	-22.8	-23.4	-23.0	-23.0	-20.3	-16.4	
Merlot	Oliver east	Wed	-20.8	-20.5	-22.6	-22.3	-24.8	-22.1	-22.2	-22.6	-21.5	-20.4	-16.6	
Merlot	Oliver, west	Wed	-19.5	-19.4	-19.3	-20.5	-23.8	-19.5	-20.2	-20.4	-19.7	-16.1	-15.7	
Merlot	Osoyoos west	Wed	-20.5	-21.9	-22.3		-25.0		-22.3	-22.3	-22.2	-20.2	-16.5	
Merlot	Osoyoos, southeast	Wed	-19.2	-20.8	-22.0		-25.7		-22.3	-22.7	-22.4	-20.1	-15.4	
Merlot	Black Sage	Wed	-20.0	-18.2	-22.5	-21.7	-25.3	-22.6	-22.6	-22.7	-22.7	-19.0	-14.6	
Merlot	Black Sage	Wed	-20.8	-21.4	-22.7	-22.9	-25.5	-22.1	-22.4	-23.0	-22.6	-20.0	-16.2	
Pinot blanc	Oliver east	Tues	-21.1	-21.8	-23.4	-22.4		-23.2	-24.1	-23.5	-24.7	-23.2	-17.9	
Pinot blanc	Black Sage	Tues	-21.6	-21.6	-23.5	-21.5	-22.8	-22.1	-23.0	-23.2	-23.8	-21.4	-16.1	
Pinot gris	OK Falls, east	Tues	-22.7	-22.3	-23.7	-23.3		-22.7	-23.5	-23.9	-23.9	-22.6	-18.4	
Pinot gris	Oliver east	Tues	-21.3	-22.2	-23.2	-22.7	-27.1	-24.3	-23.7	-24.8	-24.3	-22.2	-18.5	
Pinot gris	Black Sage	Tues	-22.3	-22.3	-23.5	-22.9	-25.2	-23.0	-23.6	-24.3	-24.0	-21.7	-16.1	
Pinot gris	Naramata bench	Tues	-20.7	-20.1	-22.9	-21.9	-25.3		-22.0	-22.1	-22.1	-20.2	-15.4	
Pinot gris	Oliver east	Wed	-22.3	-23.2	-24.7	-23.7	-26.8	-24.7	-24.3	-24.0	-24.4	-21.8	-18.6	
Pinot noir	Osoyoos northeast	Tues	-22.1	-22.6	-23.7	-23.2		-23.5	-23.4	-24.3	-23.7	-22.3	-18.4	
Pinot noir	Kelowna	Tues	-20.4	-21.3	-22.3	-22.7	-23.6	-23.3	-23.7	-23.7	-23.4	-21.2	-16.9	
Pinot noir	Naramata bench	Tues	-21.0	-20.2	-21.6	-21.8	-24.8		-22.3	-22.6	-22.9	-21.0	-16.9	
Pinot noir	Black Sage	Wed	-22.0	-21.7	-23.5	-23.9	-26.2	-24.5	-23.8	-23.3	-23.8	-20.8	-15.8	
Riesling	Oliver east	Tues	-20.7	-21.4	-23.2	-22.6		-23.0	-23.3	-24.0	-24.4	-22.6	-21.2	
Riesling	Black Sage	Tues	-23.2	-21.5	-24.5	-23.3	-23.8	-23.3	-23.1	-24.0	-23.4	-22.3	-21.4	
Riesling	West Kelowna	Tues	-20.3	-20.3	-22.6	-23.2	-23.8	-23.7	-23.7	-25.3	-24.3	-23.4	-20.3	
Riesling	Naramata bench	Tues	-20.9	-21.3	-22.9	-22.0	-25.3		-23.0	-23.9	-23.8	-21.5	-16.7	
Riesling	Black Sage	Tues	-21.2	-21.9	-23.5	-23.0	-23.4	-21.2	-23.3	-22.4	-22.4	-21.6	-18.4	
Sauv blanc	Black Sage	Tues	-20.7	-20.1	-21.7	-22.4	-24.0	-22.1	-21.5	-22.8	-21.8	-20.2	-17.4	
Sauv blanc	Black Sage	Tues	-19.1	-20.7	-21.5	-21.1	-26.0	-21.7	-21.9	-22.6	-22.4	-21.3	-17.7	
Sauv blanc	Black Sage	Tues	-20.6	-20.7	-23.3	-21.9	-25.4	-21.7	-21.5	-23.1	-23.5	-21.6		
Sauv blanc	Black Sage	Wed	-19.0	-19.7	-22.1	-22.1	-23.7	-21.6	-21.0	-22.4	-21.6	-19.8	-14.6	
Sauvignon blanc	Oliver east	Tues	-20.5	-20.6	-22.5	-22.7		-22.3	-21.7	-22.6	-22.7	-20.9	-17.6	
Sauvignon blanc	Oliver east	Tues	-20.9	-21.0	-23.4	-22.4	-26.3	-23.2	-22.9	-23.7	-23.2	-21.8	-18.2	
Sauvignon blanc	Osoyoos northeast	Wed	-18.8	-20.0	-22.0	-22.4	-23.2	-22.2	-21.8	-22.2	-22.1	-19.9	-14.8	
Sauvignon blanc	Osoyoos northeast	Wed	-19.4	-20.8	-21.7	-22.3	-24.0	-21.8	-21.4	-22.1	-21.9	-19.6	-17.0	
Sauvignon blanc	Osoyoos northeast	Wed	-19.5	-20.6	-22.6	-23.0	-22.7	-22.8	-22.5	-22.9	-22.2	-20.7	-15.3	
Sauvignon blanc	Oliver east	Wed	-20.8	-21.9	-23.9	-23.6	-25.0	-23.2	-22.8	-23.6	-22.8	-20.6	-18.2	
Sauvignon blanc	Oliver east	Wed	-21.1	-21.0	-22.4	-22.3	-23.0	-22.3	-21.9	-22.4	-22.6	-20.1	-18.0	
Shiraz	Osoyoos northeast	Tues	-17.7	-18.0	-20.6	-20.8	-23.5	-20.9	-21.9	-22.7	-22.0	-20.7	-16.6	
Shiraz	Osoyoos northeast	Tues	-18.4	-18.7	-20.2	-21.6	-20.9	-21.3	-21.9	-23.0	-22.5	-21.2	-16.6	
Shiraz	Black Sage	Tues	-19.6	-19.5	-21.6	-20.8	-21.2	-20.4	-22.2	-23.9	-23.4	-22.2	-18.2	
Shiraz	Osoyoos, southeast	Wed	-21.3	-20.9	-21.9		-25.4		-23.1	-23.8	-22.9	-20.8	-17.1	
Shiraz	Osoyoos, southeast	Wed	-17.8	-18.1	-21.2		-23.4		-21.5	-22.4	-21.8	-20.3	-15.7	
Shiraz	Osoyoos, southeast	Wed	-18.3	-18.7	-22.1		-19.1		-21.4	-21.8	-21.8	-19.3	-16.3	
Viognier	Osoyoos west	Wed	-21.3	-21.9	-24.4		-25.8		-23.6	-23.3	-23.6	-22.1	-16.0	

Avg LTE/site is the mean temperature for bud death from 3 vines at selected sites in the Okanagan Valley
 LTE - Lethal Temperature Exotherm (°C)

Carl Bogdanoff - Summerland RDC Wine Grape Research