

2014 - 2015 Winter Grape Bud Hardiness Okanagan Valley BC

Location	Variety	Avg LTE	sample date dd-mm	Avg LTE	sample date dd-mm	Avg LTE	sample date dd-mm	Avg LTE	sample date dd-mm	Avg LTE	sample date dd-mm	Avg LTE	sample date dd-mm	Avg LTE	sample date dd-mm	Avg LTE	sample date dd-mm	Avg LTE	sample date dd-mm	Avg LTE	sample date dd-mm	Avg LTE	sample date dd-mm	Avg LTE	sample date dd-mm
Osoyoos, southeast	Cabernet Franc			-14.2	06-11	-21.0	20-11	-23.5	04-12	-23.1	18-12			-23.5	15-01			-19.3	12-02	-20.3	05-03	-11.2	19-03		
Black Sage	Cabernet Franc	-12.2	28-10	-16.6	12-11	-18.9	25-11	-20.4	09-12	-21.9	23-12	-22.8	06-01	-22.6	20-01	-21.9	03-02	-17.7	17-02	-18.0	03-03	-10.3	17-03		
Oliver east	Cabernet Franc	-11.2	28-10	-17.6	12-11	-18.5	25-11	-20.8	09-12	-20.9	23-12	-22.7	06-01	-21.0	20-01	-22.3	03-02	-17.8	17-02	-19.5	03-03	-14.4	17-03		
Osoyoos, southeast	Cabernet Sauvignon	-12.2	28-10	-15.7	12-11	-19.3	25-11	-20.2	09-12	-21.3	23-12	-22.7	06-01	-22.2	20-01	-21.5	03-02	-17.6	17-02	-19.4	03-03	-13.6	17-03		
Black Sage	Cabernet Sauvignon	-12.3	28-10	-16.2	12-11	-19.2	25-11	-19.2	09-12	-20.9	23-12	-21.7	06-01	-24.4	20-01	-21.1	03-02	-17.0	17-02	-19.4	03-03	-16.7	17-03		
Osoyoos northeast	Cabernet Sauvignon	-11.8	28-10	-15.0	12-11	-19.5	25-11	-20.9	09-12	-20.2	23-12	-21.8	06-01	-22.3	20-01	-21.7	03-02	-19.2	17-02	-19.7	03-03	-14.1	17-03		
Osoyoos northeast	Cabernet Sauvignon	-11.6	28-10	-16.8	12-11	-18.9	25-11	-21.2	09-12	-21.6	23-12	-19.9	06-01	-22.9	20-01	-21.6	03-02	-17.9	17-02	-18.1	03-03	-14.6	17-03		
Osoyoos, southeast	Chardonnay	-14.0	28-10	-17.6	06-11	-23.0	20-11	-23.6	04-12	-23.9	18-12			-22.0	15-01			-20.4	12-02	-20.2	05-03	-12.0	19-03		
Black Sage	Chardonnay	-12.6	28-10	-13.9	06-11	-20.3	20-11	-23.2	04-12	-22.2	18-12			-22.8	15-01			-18.2	12-02	-19.1	05-03	-11.5	19-03		
Naramata bench	Chardonnay	-14.4	28-10	-20.2	12-11	-20.9	25-11	-22.1	09-12	-22.6	23-12			-21.3	20-01	-22.0	03-02	-19.1	17-02	-17.4	03-03	-13.1	17-03		
OK Falls, east	Chardonnay	-13.9	28-10	-19.8	12-11	-20.5	25-11	-21.6	09-12	-21.8	23-12	-22.9	06-01	-20.5	20-01	-21.6	03-02	-17.9	17-02	-18.1	03-03	-10.4	17-03		
Oliver east	Chardonnay	-13.0	28-10	-19.8	12-11	-21.8	25-11	-22.0	09-12	-22.7	23-12	-24.3	06-01	-24.1	20-01	-22.9	03-02	-16.9	17-02	-19.3	03-03	-10.8	17-03		
Kelowna	Gewurztraminer			-16.1	12-11	-18.0	25-11	-20.3	09-12	-21.2	23-12	-22.5	06-01	-21.9	20-01	-21.1	03-02	-18.1	17-02	-18.4	03-03	-11.3	17-03		
OK Falls, west	Gewurztraminer	-12.8	28-10	-19.7	12-11	-21.5	25-11	-22.6	09-12					-21.7	20-01	-21.3	03-02	-16.8	17-02	-18.2	03-03	-11.0	17-03		
Oliver east	Gewurztraminer	-12.9	28-10	-19.6	12-11	-20.8	25-11	-21.6	09-12			-23.0	06-01	-21.8	20-01	-22.7	03-02	-20.4	17-02	-19.1	03-03	-14.4	17-03		
Osoyoos west	Merlot			-14.4	06-11	-20.1	20-11	-22.5	04-12	-21.5	18-12			-23.7	15-01			-19.5	12-02	-19.3	05-03	-12.5	19-03		
Oliver, west	Merlot	-11.9	28-10	-14.8	12-11	-16.5	25-11	-20.0	09-12	-19.9	23-12	-21.9	06-01	-22.9	20-01			-19.3	17-02	-18.3	03-03	-12.7	17-03		
Osoyoos northeast	Merlot	-13.5	28-10	-18.4	12-11	-20.7	25-11	-21.8	09-12	-21.0	23-12	-22.6	06-01			-21.9	03-02	-19.6	17-02	-18.7	03-03	-13.1	17-03		
Black Sage	Merlot	-12.4	28-10	-16.9	12-11	-19.7	25-11	-19.5	09-12	-21.6	23-12			-23.9	20-01	-22.1	03-02	-19.4	17-02	-18.5	03-03	-11.9	17-03		
Black Sage	Pinot blanc	-14.2	28-10	-17.7	12-11	-18.6	25-11	-20.4	09-12	-20.2	23-12	-22.3	06-01	-23.8	20-01	-20.9	03-02	-17.6	17-02	-17.9	03-03	-12.9	17-03		
Oliver east	Pinot blanc			-20.4	12-11	-20.6	25-11	-22.7	09-12			-23.8	06-01	-23.2	20-01	-23.3	03-02	-19.0	17-02	-21.0	03-03	-14.5	17-03		
Oliver east	Pinot gris	-14.4	28-10	-15.8	06-11	-22.7	20-11	-22.5	04-12	-22.6	18-12			-20.7	15-01			-21.0	12-02	-22.0	05-03	-15.2	19-03		
Black Sage	Pinot gris	-13.7	28-10	-18.9	12-11	-19.4	25-11	-21.7	09-12	-22.4	23-12	-23.8	06-01	-20.0	20-01	-22.4	03-02	-17.8	17-02	-19.6	03-03	-13.0	17-03		
Naramata bench	Pinot gris	-13.2	28-10	-19.1	12-11	-19.8	25-11	-20.4	09-12	-21.8	23-12			-22.3	20-01	-21.0	03-02	-16.6	17-02	-14.9	03-03	-10.6	17-03		
OK Falls, east	Pinot gris	-14.0	28-10	-21.5	12-11	-21.8	25-11	-22.5	09-12	-23.3	23-12	-23.7	06-01	-21.4	20-01	-22.9	03-02	-20.4	17-02	-20.4	03-03	-14.3	17-03		
Oliver east	Pinot gris	-14.2	28-10	-19.7	12-11	-21.1	25-11	-22.9	09-12	-22.7	23-12	-23.9	06-01	-24.1	20-01	-23.0	03-02	-18.6	17-02	-19.6	03-03	-15.3	17-03		
Naramata bench	Pinot noir			-18.6	12-11	-21.8	25-11	-22.2	09-12	-23.6	23-12			-22.1	20-01	-21.1	03-02	-15.7	17-02	-14.8	03-03	-10.2	17-03		
Black Sage	Pinot noir	-14.3	28-10	-20.1	12-11	-20.8	25-11	-23.1	09-12	-23.8	23-12	-23.6	06-01	-23.5	20-01	-23.9	03-02	-21.5	17-02	-20.7	03-03	-15.2	17-03		
Kelowna	Pinot noir	-14.5	28-10	-19.7	12-11	-21.6	25-11	-22.5	09-12	-22.5	23-12	-22.8	06-01	-22.4	20-01	-21.5	03-02	-17.7	17-02	-18.5	03-03	-11.3	17-03		
Osoyoos northeast	Pinot noir	-13.3	28-10	-17.5	12-11	-20.9	25-11	-21.5	09-12	-22.7	23-12			-23.3	20-01	-22.4	03-02	-19.7	17-02	-19.5	03-03	-13.2	17-03		
Naramata bench	Riesling			-20.2	12-11	-21.4	25-11	-23.5	09-12	-23.2	23-12			-24.1	20-01	-23.2	03-02	-19.0	17-02	-17.9	03-03	-11.4	17-03		
Black Sage	Riesling			-17.6	12-11	-21.3	25-11	-22.1	09-12	-23.2	23-12	-24.0	06-01	-22.5	20-01	-22.9	03-02	-20.2	17-02	-20.4	03-03	-15.4	17-03		
Black Sage	Riesling	-13.7	28-10	-21.6	12-11	-21.7	25-11	-23.5	09-12	-23.7	23-12	-24.0	06-01	-22.9	20-01	-23.6	03-02	-21.5	17-02	-21.6	03-03	-14.9	17-03		
West Kelowna	Riesling	-13.3	28-10	-19.9	12-11	-21.9	25-11	-22.2	09-12	-22.0	23-12	-22.9	06-01	-23.6	20-01	-23.0	03-02	-20.9	17-02	-21.0	03-03	-13.5	17-03		
Oliver east	Riesling	-12.8	28-10	-19.8	12-11	-19.7	25-11	-22.3	09-12			-24.2	06-01	-23.9	20-01	-22.7	03-02	-20.4	17-02	-20.8	03-03	-14.2	17-03		
Oliver east	Sauvignon blanc	-12.3	28-10	-18.0	12-11	-20.8	25-11	-21.7	09-12	-21.6	23-12	-23.0	06-01	-22.1	20-01	-21.8	03-02	-19.8	17-02	-19.6	03-03	-13.6	17-03		
Oliver east	Sauvignon blanc	-13.2	28-10	-18.3	12-11	-20.1	25-11	-21.8	09-12	-21.8	23-12	-23.3	06-01	-22.9	20-01	-22.4	03-02	-19.0	17-02	-21.1	03-03	-14.7	17-03		
Osoyoos, southeast	Shiraz			-13.1	06-11	-19.2	20-11	-19.9	04-12	-20.8	18-12			-22.0	15-01			-19.0	12-02	-19.8	05-03	-10.5	19-03		
Osoyoos, southeast	Shiraz			-12.8	06-11	-18.1	20-11	-20.2	04-12	-20.0	18-12			-22.0	15-01			-18.0	12-02	-19.5	05-03	-11.1	19-03		
Osoyoos, southeast	Shiraz	-14.1	28-10	-18.9	12-11	-20.9	25-11	-20.3	09-12	-22.0	23-12	-23.7	06-01	-21.9	20-01	-23.1	03-02	-19.2	17-02	-18.8	03-03	-14.0	17-03		
Black Sage	Shiraz	-11.4	28-10	-17.1	12-11	-19.2	25-11	-21.2	09-12	-21.0	23-12	-20.5	06-01	-21.2	20-01	-22.2	03-02	-18.7	17-02	-18.9	03-03	-13.1	17-03		
Osoyoos northeast	Shiraz	-12.2	28-10	-16.1	12-11	-17.4	25-11	-19.3	09-12	-21.0	23-12			-22.3	20-01	-20.7	03-02	-17.4	17-02	-16.7	03-03	-11.6	17-03		
Osoyoos northeast	Shiraz	-12.3	28-10	-16.5	12-11	-18.4	25-11	-20.0	09-12	-19.8	23-12	-21.1	06-01	-23.0	20-01	-20.8	03-02	-17.9	17-02	-19.1	03-03	-12.6	17-03		
Osoyoos west	Viognier			-15.0	06-11	-20.0	20-11	-22.0	04-12	-22.3	18-12			-21.8	15-01			-20.7	12-02	-21.0	05-03	-12.5	19-03		
Average Bud Hardiness (all sites, all varieties)		-13.1		-17.7		-20.2		-21.6		-21.9		-22.8		-22.5		-22.1		-18.8		-19.2		-12.9			

LTE - Lethal Temperature Exotherm (°C)

Average LTE/site is the mean temperature for bud death from 3 vines at selected sites in the Okanagan Valley

Carl Bogdanoff - Wine Grape Research Centre @ PARC