

# Winter Injury Studies 2006

## Grape Bud Survival

### April 06, 2006

#### Research Team

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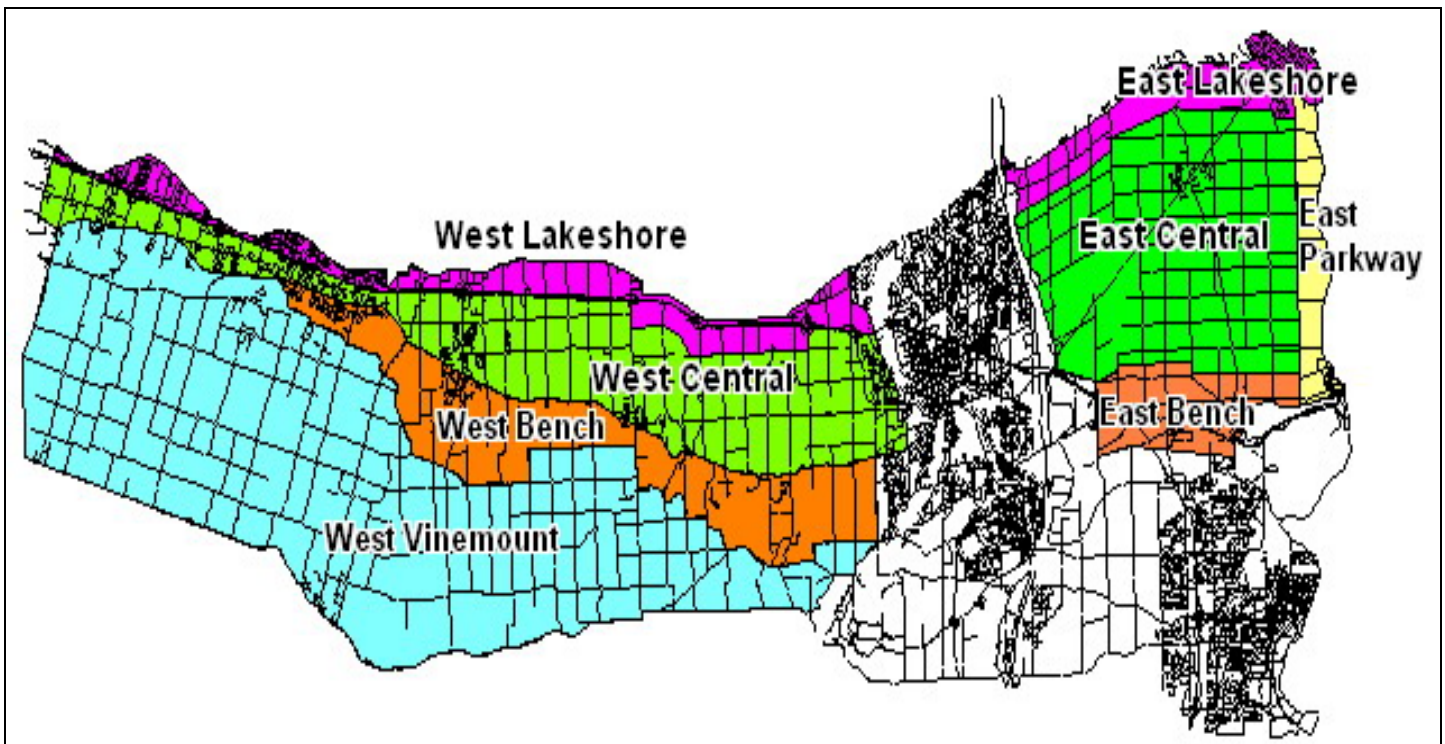
Grape bud sampling to establish winter survival is part of the 3 year - CanAdvance and CRESTech funded Winter Injury and Wind Machine project. The tables in this article report the sampling results based on the bud collection during the week of April 06, 2006.

To date, the coldest temperatures were recorded between Dec. 12 -14, 2005 and ranged between -14.1° C on the Jordan Escarpment to -19.1°C at the Virgil OWN weather site. These temperatures were not considered a “cold event which could cause considerable damage”; however, wind machines may have prevented some winter injury at certain sites. There was concern that a cold event so early in the season might have caused some damage as plants may not have been properly acclimated at that date.

The Grape Growers of Ontario (GGO) and the Wine Council of Ontario (WCO) are the major sponsors of the project. Other partners include; Stephane Bosc – Orchard Rite; Roger Vail – Chinook; KCMS Applied Research and Consulting; Agricorp; Ontario Tender Fruit Producers’ Marketing Board; the Niagara Peninsula Fruit & Vegetable Growers’ Association, OMAFRA; Brock University and the University of Guelph.

The Parkway zone runs approximately 1 km along the west side of the Niagara River from Niagara-on-the-Lake to Queenston; the Lakeshore zone is approximately 1 km south of the lake from the Niagara River to Grimsby; the Central zone continues south of the Lakeshore zone to the base of the escarpment; the Bench zone starts at the south side of the Central zone to the brink of the escarpment and the Vinemount zone runs south of the Bench Zone.





### 8 Sampling Zones Used

**% Live Buds - Labrusca – April 3-6, 2006 (NS means no sample taken)**

Cultivar	Location	East of Canal	West of Canal
Concord	Vinemount	NS	93
Niagara	Vinemount	NS	92

**% Live Buds - Hybrids – April 3-6, 2006 (NS means no sample taken)**

Cultivar	Location	East of Canal	West of Canal
Baco Noir	Central	91	82
	Parkway	94	NS
Foch	Central	NS	80-91
	Vinemount	NS	81
Vidal	Central	86-90	81-91
	Lakeshore	87	NS
	Parkway	91-93	NS
	Vinemount	NS	77

**% Live Buds - Vinifera – April 3-6, 2006 (NS means no sample taken)**

<b>Cultivar</b>	<b>Location</b>	<b>East of Canal</b>	<b>West of Canal</b>
Cabernet Franc	Bench	83-93	71-96
	Central	77-89	62-99
	Lakeshore	72-87	95
	Parkway	85-94	NS
	Vinemount	NS	78-86
Cabernet Sauvignon	Central	NS	89
	Lakeshore	NS	92
	Parkway	71	NS
Chardonnay	Bench	58-93	88-98
	Central	77-87	79-96
	Lakeshore	92-97	NS
	Parkway	88-92	NS
	Vinemount	NS	66
Gamay	Parkway	75	NS
Merlot	Bench	59-94	52-95
	Central	76	90
	Lakeshore	97	97-99
	Parkway	78-92	NS
	Vinemount	NS	90
Pinot Noir	Bench	92	63-94
	Central	87	72-98
	Lakeshore	91	93-97
	Parkway	99	NS
	Vinemount	NS	85-95
Riesling	Bench	71-83	61-94
	Central	76-84	83-91
	Lakeshore	86	92
	Parkway	88	NS
	Vinemount	NS	83-96
Sauvignon Blanc	Central	94	72
	Lakeshore	78	NS
Syrah	Lakeshore	NS	78
	Parkway	48	NS