

Winter Injury Studies 2006/07

Grape Bud Survival

December 18, 2006

Research Team

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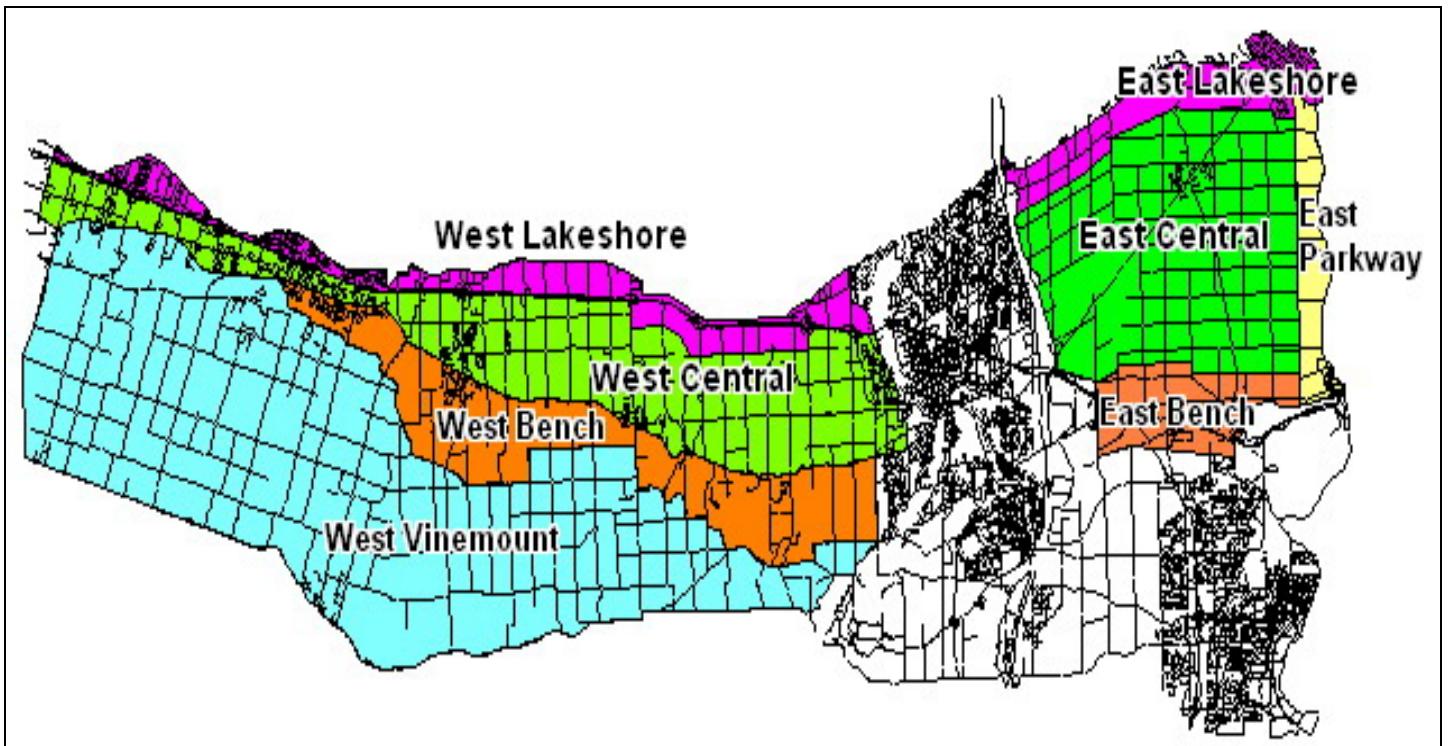
Grape bud sampling to establish winter survival is part of the 3 year - CanAdvance and CRESTech funded Winter Injury and Wind Machine project. The tables in this article report the sampling results based on the bud collection during the week of December 18-20, 2006. There have been relatively few changes from the last sampling of November 20-22, 2006. However, the percent alive may vary up or down from the last sample due to the variation in the samples taken. The tables below are based on multiple samples and multiple sites within in area for each cultivar. All observations for each cultivar and location include both vineyards with wind machines and without.

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.

For sampling purposes, the grape growing areas of the Niagara Peninsula were placed into different climatic zones which closely resemble the “Niagara Grape Climatic Zones”, map originally published in 1976 and revised in 2001 by Fisher and Slingerland.

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 – Dec. 18-20, 2006 (NS means no sample taken)

| Cultivar | Location | East of Canal | West of Canal |
|----------|-----------|---------------|---------------|
| Concord | Vinemount | NS | 99-100 |
| Niagara | Vinemount | NS | 82-96 |

% Live Buds - Hybrids – Dec. 18-20, 2006 (NS means no sample taken)

| Cultivar | Location | East of Canal | West of Canal |
|-----------|-----------|---------------|---------------|
| Baco Noir | Central | 98 | 99 |
| | Parkway | 100 | NS |
| Foch | Central | NS | 88-98 |
| | Vinemount | NS | 95 |
| Vidal | Central | 96-99 | 95-96 |
| | Lakeshore | ICE WINE | NS |
| | Parkway | 98-99 | NS |
| | Vinemount | NS | 98 |

% Live Buds - Vinifera – Dec. 18-20, 2006 (NS means no sample taken)

| Cultivar | Location | East of Canal | West of Canal |
|--------------------|-----------------|----------------------|----------------------|
| Cabernet Franc | Bench | 97 | 95-99 |
| | Central | 97-99 | 95-99 |
| | Lakeshore | 90-96 | 99 |
| | Parkway | 69-97 | NS |
| | Vinemount | NS | 95-100 |
| Cabernet Sauvignon | Central | NS | 100 |
| | Lakeshore | NS | 96 |
| | Parkway | 98 | NS |
| Chardonnay | Bench | 96-97 | 88-98 |
| | Central | 97-98 | 97-100 |
| | Lakeshore | 97-98 | NS |
| | Parkway | 95-98 | NS |
| | Vinemount | NS | 96 |
| Gamay | Parkway | 100 | NS |
| Merlot | Bench | 100 | 97-100 |
| | Central | 98 | 99-100 |
| | Lakeshore | 98 | 97-99 |
| | Parkway | 97-99 | NS |
| | Vinemount | NS | 95 |
| Pinot Noir | Bench | 98-100 | 83-98 |
| | Central | 94 | 95-100 |
| | Lakeshore | 94 | 97-100 |
| | Parkway | 98 | NS |
| | Vinemount | NS | 63-90 |
| Riesling | Bench | 83 | 90-97 |
| | Central | 93-98 | 94-100 |
| | Lakeshore | 89-96 | 97 |
| | Parkway | 84-97 | NS |
| | Vinemount | NS | 92-100 |
| Sauvignon Blanc | Central | 95 | 96 |
| | Lakeshore | 93 | NS |
| Syrah | Lakeshore | NS | 90 |
| | Parkway | 74 | NS |