



# LAKE ERIE REGIONAL GRAPE PROGRAM

## *Electronic Crop Update for May 10, 2012*

Go to <http://lergp.cce.cornell.edu/EventsCalendar.htm> for a detailed calendar of events including maps via Google calendar! Scroll to the bottom of the page for Google calendar and click on the event. Please remember to RSVP for those events that require one! UPCOMING EVENTS are also listed toward the bottom of this Electronic Update.

Please remember to let us know if you have changed or are in the process of changing your email address so we can keep the Electronic Crop Update coming to your inbox!

Please email Edith at: [emb35@cornell.edu](mailto:emb35@cornell.edu).

### WEATHER FACTS: Edith Byrne

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| DATE / YEAR                                      | HIGH        | LOW         | DAILY<br>PRECIP.                       | GDDS        | TOTAL<br>APRIL<br>GDDS | TOTAL<br>JANUARY<br>GDDS |
|--|-------------|-------------|--|-------------|------------------------|--------------------------|
| <i>WEEK 4/25/12</i>                              | <i>54</i>   | <i>34</i>   | <i>0.00</i>                            | <i>0</i>    | <i>53</i>              | <i>183.5</i>             |
| <i>LAST WEEK 5/2/12</i>                          | <i>78</i>   | <i>48</i>   | <i>0.08</i>                            | <i>13</i>   | <i>70.5</i>            | <i>201</i>               |
| <b>May 9, 2012</b>                               | <b>62</b>   | <b>50</b>   | <b>0</b>                               | <b>6</b>    | <b>143.5</b>           | <b>274</b>               |
| May 9, 2011                                      | 63          | 39          | 0                                      | 1           | 113                    | 121.5                    |
| May 9, 2010                                      | 46          | 36          | 0.78                                   | 0           | 242.5                  | 246                      |
| <b>AVERAGE</b>                                   | <b>65.6</b> | <b>47</b>   | <b>0.12</b>                            | <b>7.72</b> | <b>136.81</b>          | <b>161.71</b>            |
| <b>GDDs accumulated May '12 *so far* = 86.50</b> |             |             | <b>GDDs accumulated April '12 = 57</b> |             |                        |                          |
|  | <b>2012</b> | <b>2011</b> | <b>2010</b>                            |             |                        |                          |
| <b>Average High April</b>                        | 53.4        | 54.17       | 61.07                                  |             |                        |                          |
| <b>Average Low April</b>                         | 35.8        | 38.07       | 42.17                                  |             |                        |                          |

*This year compared to AVERAGE: JAN. GDD: Ahead 14.55 / APR. GDD: Ahead 0.87*

*This year compared to 2011: JAN. GDD: Ahead 19.75 / APR. GDD: Ahead 3.95*

**May Pcp thru 5/2 = 1.57" / 2012 Total Precipitation through 5/2 = 13.01"**

**April 2011 Precipitation = 14.88" / 2011 Total Precipitation through April = 24.23"**

**Here Is A Brief Update From North East PA.**

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**Weather:** We have accumulated as many growing degree days (gdds) in the first 9 days of May as in the entire month of April (about 59) and are currently recording about 260 gdds since March 1. We have recorded 1.46 inches of precipitation in May. Although it is currently raining, the short term Skybit forecast (Thursday through Saturday) calls for dry conditions and highs in the mid 50s for today (Thursday May 10) to lower/mid 60s on Friday/Saturday. Wind speeds will bottom out in the mid-single digits (mph) around midnight, and peak in the mid teens during mid afternoon over the next 3 days. The Accuweather forecast over the next week, predicts mostly dry conditions with highs ranging from the mid 60s to the lower 70s. Low temperatures look to be remaining well above freezing.

**Phenology and disease:** Here at the North East lab shoot growth on Concord falls within 3-5 inches in length, and we have applied a mancozeb spray for control of Phomopsis. According to our Campbell weather data, I estimate that we have had about 6 primary infection periods for powdery mildew, and potential for 2-4 infection periods for Phomopsis over the past 10 days. This year, the early shoot growth spray is recommended in vineyards with adequate primary buds as there is abundant inoculum on older wood and year-old canes in the majority of Lake Erie vineyards. Primary shoots can be sprayed anytime now; keep a close eye on the forecast for precipitation, and scout your vineyard blocks carefully to determine the timing and need for this spray over the next week.

GRAPE INTEGRATED PEST MANAGEMENT: Tim Weigle

**Freeze Damage And Vineyard IPM**

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A quick tour around the belt shows damage increased, in some cases significantly, from the freeze event during the weekend of April 28 and 29. A broad brush assessment of the belt shows that Erie County and Cattaraugus Counties in New York have some of the heaviest damage as well as the eastern section of Chautauqua County in the Hanover area. Damage tends to lessen as you move from Sheridan to Ripley although there are a number of vineyards on the south side of 20 in the Portland area where it still looks like winter while right across the road on the north side is starting to green up



Image 1. % Damage on NEWA map from May 9, 2012.

Cattaraugus Counties in New York have some of the heaviest damage as well as the eastern section of Chautauqua County in the Hanover area. Damage tends to lessen as you move from Sheridan to Ripley although there are a number of vineyards on the south side of 20 in the Portland area where it still looks like winter while right across the road on the north side is starting to green up



Image 2. Escarpment site with primaries.

with primary and secondary shoot growth getting started. It appears that vineyards in the Northeast and Harborcreek area did not get the same level of damage from the last freeze event although that is not true for all vineyards in the region. Once you start looking more closely at specific vineyards, or start looking around in some of the traditional frost prone sites, it is easy to find areas where damage is greater than the broad stroke

average.



Image 3. Severe freeze damage May 9, 2012

So, the take home message from this should be that you cannot manage your vineyard operation unless you know what is going on in each vineyard block. Take the time to get out and see what damage, if any, has occurred in each part of each vineyard blocks. Once you have assessed your level of damage, you will need to make decisions on how to alter your vineyard IPM strategy to cope with blocks where there will be little or no crop. Following is a reprint of the minimal spray program guidelines for the current, and upcoming stages of growth, for blocks affected by freezes that were first published in the April 12, 2012 Crop Update.

**Disease management** - you should be looking at a minimum of three fungicide applications in vineyard blocks where Phomopsis infections are present. Last year was a banner year for Phomopsis cane infections so there is plenty of inoculum going into this season in a majority of vineyards. Check on a block-by-block basis for the presence of Phomopsis.

**3- to -5" shoot growth** – Phomopsis application of an EBDC (e.g., Dithane, Penncozeb), Ziram or Captan using the moderate rate. Drive every row, and shut down nozzles so material is applied only to the area along the cordon. This will help to save money by increasing deposition of material (more bang for the buck) while decreasing the number of times the tank will need to be replenished (as opposed to spraying the entire height of the trellis while driving every other row). Look to reduce the volume of air early in the season using Andrew Landers tips on improving spray application found on his website at <http://web.entomology.cornell.edu/landers/pestapp/grape.htm>

*NOTE:* if you have missed the 3- to 5-inch shoot growth application you should get a fungicide applied for protection against Phomopsis *as soon as possible*, especially in vineyards with heavy Phomopsis infections present.

**Scout vineyards at 12" shoot growth.** At this time you should be able to easily examine clusters and also check out the vines for Eutypa. ***IF*** you see powdery mildew in either Concord or Niagara vineyards where there is still the potential for a crop you should consider starting your powdery mildew program now. While we did not have a severe powdery mildew problem across the belt last year (so inoculum levels should be lower), the extended forecast is calling for days frequented by cloudy skies and rainfall, the environmental conditions which favor early season powdery mildew infections. Catching powdery infections early *could* be critical in vineyards which did have a powdery mildew problem last season.

**Weed management** – no matter what type of damage your vineyards have received from the freezes, **YOUR WEED MANAGEMENT PROGRAM SHOULD NOT BE SHORT CHANGED.** Uncontrolled weed growth will provide a management nightmare for years to come as perennial grasses and broadleaves can become established in the span of one growing season and the annual weeds will produce enough seeds to fill the seed bank under the row for years to come. You can push the pencil to determine if a program combining pre emergence and post emergence herbicides is more or less expensive than a post

emergence program where applications will be necessary each time weed growth reaches 4- to 6-inches in height. In dry years we have seen where one post emergent application has done an excellent job while in wet years it can take up to three applications. Calculating the cost of not only the herbicides, but the cost of labor, equipment and diesel fuel for both programs will help you to keep costs down.

IN THE VINEYARD... with Andy Muza

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Discussion at yesterday's Coffee Pot Meeting focused on reduction of crop potential due to frost injury and management considerations for the remainder of this season.

***A few of the topics discussed:***

**Contact your crop insurance agent** - Do an initial assessment of crop injury block by block. Keep records of these assessments and take pictures to support your claims. Contact your crop insurance agent and document any phone calls/visits by insurance representatives. When the adjuster visits your farm, review your records with them and accompany them on their evaluation of your blocks. Consult with the adjuster concerning the insurance company's expectations concerning vineyard management for the season.

**Nitrogen application** – nitrogen rates may be greatly reduced or eliminated depending on the extent of crop loss based on your block by block assessments.

**Weed Control** – management of weeds is critical so do not cut corners even in blocks with frost injury.

**Disease Management** – As mentioned in previous Crop Updates, phomopsis is a main concern due to high inoculum levels in a majority of vineyards. An early season spray (e.g., 3" - 5") would be beneficial in most blocks. The Immediate Prebloom and Postbloom sprays (10 – 14 days after immediate prebloom) are critical. The need for additional sprays can be determined by block depending on disease levels, environmental conditions and potential crop.

BUSINESS MANAGEMENT: Kevin Martin

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***Economic Impact of 2012 Frost and Freeze Events***

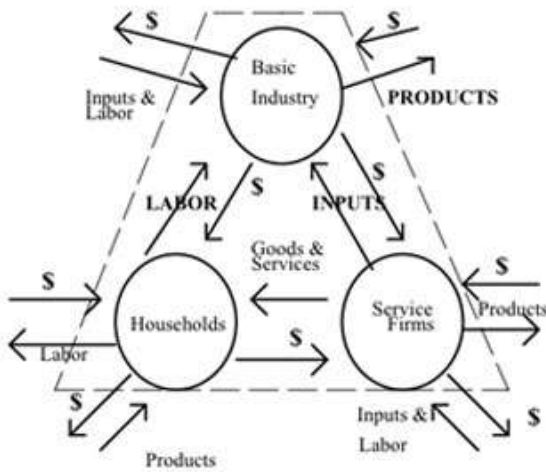
A perfect storm of conditions hit the Lake Erie Region to maximize the economic impact of the weather related events. Historically high bulk juice prices, high crop potential and ten frost or freeze events resulted in a substantial decline in the expected value of the crop. Crop insurance, potential disaster payments and modified production practices will lessen the negative impact somewhat.

This region has nearly 29,000 acres of Concord production. With 2011 weather conditions contributing to above average fruiting potential, production should have been 175,000 tons. Such production would yield nearly 10 million gallons of 68 brix concentrate, conservatively valued at 150 million dollars. A more aggressive valuation of the total crop would reach 200 million dollars.

In the scenario of 40% primary bud loss, we would expect a 30% reduction in crop size assuming an average performance of secondaries. Local climate variation and multiple frost events have made an accurate assessment slightly more challenging. For a regional nine-site breakdown of damage, see Tim Weigle's article on assessment. Despite some very cold temperatures damage varies from less than 5% primary loss to 100% damage. Secondary bud damage is also severe in localized areas.

Assuming, overall, a 30% reduction in crop size the total direct economic loss for the industry would range between \$45 and \$60 million. Gross farmer loss would be approximately \$9 million. That total

Figure 1: Overview of Community Economic System



loss is reduced by the potential for crop insurance claims. It will take some more research to try and get a handle on the potential value of crop insurance claims. It will depend significantly on block identification and volatility. With total average estimated crop loss at 50%, the average grower with CAT coverage would not have a claim. However, we know the losses are acute in certain blocks and growers

have the ability to separate blocks and insure for higher levels of coverage with buy up plans.

This region should be aware of the impact this direct loss may have. There is a multiplier effect on these losses that will change spending patterns for farmers, processor employees and

farm workers. Changes in spending patterns can impact small business revenue and sales tax. A small county in New York State actually uses the milk price as a factor in budgeting sales tax revenue. Keep in mind that business expenses do not result in sales tax. Any impact on sales tax that a county sees from lower milk prices or grape crop would be due to a multiplier. A multiplier effect in this scenario is a community effect, see figure one for illustrative purposes<sup>1</sup>.

Another factor in this economic loss is the global nature of the business. This loss is not shouldered entirely by the region. Using bulk juice as a valuation, rather than retail price does focus on what value this region adds. Even so, shareholders, distributors and others will feel some of this economic loss.

<sup>1</sup> Riggs, William, et al. Importance of Economic Multipliers, Fact Sheet-04-59. University of Nevada Cooperative Extension. <http://www.unce.unr.edu/publications/files/cd/2004/fs0459.pdf>

GRAPE CULTURAL PRACTICES: Jodi Creasap-Gee, Ph.D.

I will be out of the office on maternity leave until the first week of August. In the meantime, please be sure to continue to submit samples for petiole and soil sampling through our office.

A viticulture specialist from the Finger Lakes Regional Grape Program will be providing the recommendations for tests completed during my absence.

**A few seasonal practices to keep in mind:**

- ❖ Nutrition Management – Hold back on N if severe spring freeze damage. Soil testing is still a great idea!
- ❖ Shoot thinning in wine grapes at 5” shoot growth – IF no severe spring freeze damage, thin to 4 to 5 shoots/foot of row.
- ❖ Map blocks for soil testing
- ❖ Petiole testing – at bloom or 70-100 days after bloom
- ❖ Crop Estimation at 30 days after bloom: This will be absolutely critical this year, especially after these spring freezes. Maintain vine health and productivity with weed and pest management and reduction or elimination of fertilizer.
- ❖ Shoot Positioning – Mechanical, to manage vine vigor for the current season and to decrease

time spent on pruning.

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**Wednesday  
May 16, 2012**

**Tom Meehl, Clover Hill Farms  
10401 Sidehill Rd North East PA 16428**

Wednesday  
May 23, 2012

Harry Raby vineyard  
Diller Raby Farm 2055 Ridge Rd Lewiston NY 14092

Wednesday  
May 30, 2012

Dan Sprague vineyard  
12435 Versailles Rd. Irving NY 14081

Wednesday  
June 6, 2012

Jim Pratz vineyard  
9210 Lake Rd. North East PA 16428

**2012 LERGP  
Summer Growers  
Conference**

**Please mark your calendars and HOLD July 25 open for the 2012 LERGP Summer Growers Conference!**  
Information will be forthcoming as it becomes available -  
**STAY TUNED!**

**Next Electronic Crop Update will be: Thursday, May 17, 2012**

Lake Erie Regional Grape Program Crop Update is an e-mail newsletter produced by the Lake Erie Regional Grape Program and sent out by subscription only. For subscription information, please call us at 716.792.2800 ext 201, or look for subscription forms at [http://lergp.cce.cornell.edu/Join\\_Lergp.htm](http://lergp.cce.cornell.edu/Join_Lergp.htm).

For any questions or comments on the format of this update please contact Tim Weigle at: [thw4@cornell.edu](mailto:thw4@cornell.edu).

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**Lake Erie Regional Grape Program Team Members:**

[Andy Muza](#), Extension Educator, Erie County, PA Cooperative Extension, 814.825.0900

[Tim Weigle](#), Grape IPM Extension Associate, NYSIPM, 716.792.2800 ext. 203

[Jodi Creasap Gee](#), Viticulture Extension Associate, CCE, 716. 792.2800 ext. 204

[Kevin Martin](#), Business Management Educator, 716. 792.2800 ext. 205

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[Veraison to Harvest newsletters](#):

<http://grapesandwine.cals.cornell.edu/cals/grapesandwine/veraison-to-harvest/index.cfm>

[NY Grape & Wine Classifieds](#) – New Address! - <http://flgclassifieds.cce.cornell.edu/>

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**The Lake Erie Regional Grape Program at CLEREL  
6592 West Main Road, Portland, NY 14769**