



The Lake Erie Regional Grape Program



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Crop Update August 17, 2017

**THANK-YOU
TO EVERYONE WHO HOSTED A COFFEE POT
MEETING THIS SEASON!**

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Brant Town Hall
Peter Smith Farm
Dan Sprague Farm
Betts' Farm
Archer Pratz Farm
Jeff Schultz Farm
Orton Farm
North East Fruit Growers
Kirk Hutchinson Farm
Peter Loretto Farm
David Nichols Farm
Leo Hans Farm
Szklenki Farms
Liberty Winery



We enjoyed another successful season of Coffee Pot meetings with our growers. We look forward to next year!

Have a safe and successful harvest season!

Business Management

Kevin Martin, Penn State University, LERGP, Business Management Educator

A Detailed Cash Flow Model

Kevin Martin

Cash Flow Issues

Back in 2015, just one year into declining grape prices, 160 of 600 Lake Erie Growers indicated that they've already had to take steps to modify their business or production practices in order to have adequate cash flow to operate through harvest. Keep in mind; this does not indicate growers that have decided to reduce production investments because of price.

For some historical context, it is possible some of those cash flow problems were related to 2012 frost damage. 2012 was an illustration in the utility of crop insurance. Crop load management could not efficiently compensate for such a severe frost the way crop insurance can. Growers using both methods of risk management rarely reported cash flow problems in 2015.

Two years later, survey results would likely mislead us. I would anticipate growers to report less cash flow problems. Low prices and marketing contract reductions led many acres of grapes in a grey area of abandonment and minimal care. The prolonged market conditions have led to much of that acreage to be fully abandoned. When compared with 2012, at least 10% of acreage is gone or will go un-harvested in 2017. For years 2014 - 2016 a substantial number of acres were able to find secondary markets that are not likely to be available in 2017.

It is likely that those hit particularly hard by reductions and cancellations would not respond to a survey. There has been an observable decline in growers, insured acres and business operations.

In addition to the 3,000 acres already most severely impacted, it is becoming likely that another substantial portion of the cash market will continue to see impacts that undermine sustainability of the vineyard operations.

How to React

It is hard to provide general advice on the best way to react to cash flow problems. Some general guidelines follow, but ultimately this is a personal decision based on personal circumstances.

Exiting via Business Transfer

If a grower has the means to avoid bankruptcy and put food on the table but is already seeing significant cash flow challenges, an exit plan should be crafted. For Welch growers, this may be easier. There are growers that do not have cash flow problems; they also don't have a market. The sale of a contract is a critical part of an exit strategy.

Bankruptcy

Lots of famous businesses emerge from bankruptcy and realize success. With that in mind, as painful as the process is, it does work for some. The time it takes to build equity in farming is extremely long. This avenue would be more appropriate for growers that simply do not have a sustainable exit strategy other than bankruptcy. With some hard work, you might emerge with a higher standard of living. However, it is fairly likely you will no longer be growing grapes.

Low Cost Production

Growers do have flexibility in reducing business costs. Operating costs, excluding debt service, represent between 20% and 50% of total cost. Growers that operate between 30% and 40% are the most sustainable. It does take planning and innovative production practices to obtain those benchmarks. If you've put yourself in a position to maximize flexibility, you may be in a position to survive. A low cost producer needs to have the reliable equipment necessary to operate efficiently with low labor and debt service costs. Low cost production is only sustainable for a certain period of time, likely not more than 5 years. It is likely that growers cutting operating costs to prop up cash flow will begin to see vineyards decline in 2018 or 2019. Cuts that were too severe, or targeting the wrong expense have likely already resulted in vineyard decline.

Leveraged and Salary Expenditures

Debt and salary draw really limit the financial flexibility of an operation. Many growers that do not have a need for debt service payments or a salary draw really should be able to avoid cash flow issues as long as they concentrate on investments that sustain long-term average yields.

As mentioned in an article in 2012 a salary draw may not be avoidable for some farm businesses. We see a decreasing number of growers relying on salary draw to maintain their lifestyle. Unfortunately, the business typically needs more flexibility than a rigid monthly draw allows. It can be possible for larger growers, when debt service is minimal. Every grower is different but growers must evaluate how long an operation is sustainable without a salary draw.

Even a highly leveraged grower of one hundred acres probably does not have more than five hundred thousand in debt. Interest payments for the year should total between twenty and thirty thousand. Principle payments may be adjusted, depending on the lender. Total loan expenses should not exceed 35,000 on this type of farm. This kind of leveraging allows a younger grower to enter the business. The cash flow budget reveals the additional risk realized with higher debt levels. Again, this is a reason to consider high levels of crop insurance. Without it, the typical grower would have to increase debt (if possible) to make it through the year.

Other cash flow variations

While a great number of variables can slightly change cash flow, the previously considered capture most variation. Of an important note, of course is the baseline. The purpose of a cash flow budget is not to determine profitability. It does not determine the long-term sustainability of your operation.

The largest variability that cannot be assessed across the industry, only on individual farms, is the amount of cash on hand prior to the beginning of 2015 crop payments and 2015 crop expenses. If one had a crop loan larger than the value of the crop, it is entirely possible a farm entered the 2015 crop year with negative cash.

Outlook

The market, particularly the cash market is not expected to improve before 2019. If declining equity and increasing debt load is currently a significant challenge, an exit strategy should be part of your plan. It may just not be sustainable to continue until a time prices recover. For growers in Cooperatives it is important to look at revenue and model that revenue to measure cash flow. It is possible certificates or payments from prior years may provide the cash to continue to operate for a few years even if cash flow is tight now. Keep in mind, August or September is usually worse than any other month.



INSURING GRAPES

NY, 2017

Crop insurance is a safety net for farmers that helps you **manage risk**. If you have a crop failure, crop insurance can help you farm again next year.

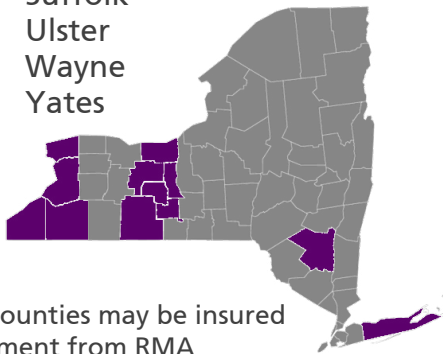
Important Insurance Deadlines

- **Aug. 15, 2017:** Premium Billing Date
- **Nov. 20, 2017:** Sales Closing, Policy Change, Cancellation, Termination Date
- **Nov. 20, 2017:** End of Insurance Period
- **Jan. 15, 2018:** Acreage / Production Report Date



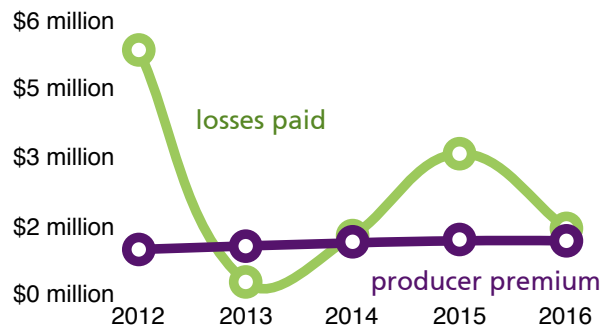
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Grapes in other counties may be insured by written agreement from RMA

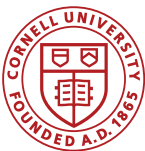
NYS Grape Crop Insurance Performance



for every \$1 grape producers spent on crop insurance premiums from 2012 to 2016, **they received \$2.07** in losses paid, on average

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IPM

Tim Weigle, NYSIPM, Cornell University, LERGP Team Leader

Grape Berry Moth

As shown in the table below, we are at a point in the growing season where location is everything; at least as far as grape berry moth management is concerned. Stations in Niagara County show DD accumulations are either below or very close to the 1620 DD treatment threshold, while many of the stations in the lower grape belt are showing DD accumulations that are in the treatment range to well past the point where insecticide treatments would be effective as the larvae are now inside the berry. Your best bet is to access the Grape Berry Moth model on NEWA (<http://newa.cornell.edu>) for the station, or stations, near you, enter the wild grape bloom date in your area, access the pest status and follow the pest management recommendations provided.

For vineyards that have a history of late season damage from grape berry moth, we have found that due to the overlap of generations after 1620 DD, the model is no longer valid for timing insecticide applications. The recommendation is now to continue insecticide applications on a regular schedule (spray interval will depend on materials used) to provide protection from now until the grapes are harvested.

If you have any questions on implementing the GBM model in your vineyard operation, please get in touch with me by e-mail thw4@cornell.edu or call 716.792.2800

NEWA Location	Wild grape bloom date*	DD Total on Aug 4, 2017	Forecasted DD for Aug 9, 2017
Versailles	May 28	1749	1844
Dunkirk Airport	June 1	1725	1820
Sheridan	May 28	1813	1936
Silver Creek	May 31	1742	1865
Portland Escarp.	May 28	1776	1899
Portland	May 29	1785	1908
Westfield	May 28	1829	1953
Ripley	May 28	1842	1969
North East Escarp	May 27	1793	1917
Harborcreek	May 28	1828	1959
North East Lab	May 29	1854	1985
Erie Airport	May 26	1893	2024
Ransomville	June 3	1688	1815
Somerset	June 8	1596	1722
North Appleton	June 11	1456	1583
* Estimated date provided by NEWA website			

PA Update

Andy Muza, Extension Educator, Penn State

In the Vineyard (8-17-2017)

Insects

Grape Berry Moth – GBM eggs were not hard to find at a Severe Risk site checked this week in Erie County, PA (Figure 1). This highlights the fact that some egg laying is still occurring at sites with high populations of GBM. By now High/Severe Risk sites or blocks with more than 15% damaged clusters should have received an



insecticide application for the third generation of GBM. If you have vineyard blocks categorized as High/Severe Risk then consider an additional insecticide treatment 7 – 10 days from your previous application. Since GBM injury usually decreases in rows/post lengths farther from the woods, an entire block may not need an insecticide application. The amount of area needing to be sprayed will depend on the history of GBM injury at your site and your scouting information.

Figure 1. Grape berry moth eggs on Concord berry. Photo: Andy Muza, Penn State.

Diseases

Downy Mildew – Even in a dry season (since July), downy mildew can still cause problems in susceptible varieties if it becomes established. A Delaware block scouted 3 weeks ago had enough leaf infections at that time to warrant a fungicide application. This week, despite the dry weather, sporulating DM lesions continue to persist in this block (Figure 2). This is the only site where I have found any appreciable amounts of DM this season.



Figure 2. Downy mildew lesions on Delaware leaves. Photo: Andy Muza, Penn State.

Honeyvine Milkweed

In a previous Crop Update (7/13/17) I reported on a perennial weed called honeyvine milkweed (HvM) that is a problem in a number of vineyards in Erie County, PA. (Figure 3).

By now, HvM will be in the trellis and producing pods. I am again reminding growers to scout vineyards now for this weed. If found, remove HvM from the trellis and spray these weeds with a high rate of a postemergent herbicide (e.g., glyphosate, glufosinate, or paraquat).

Flag and map HvM locations for future reference. Once established this perennial weed will not be eliminated from a vineyard by a single herbicide application. Management attempts to eliminate HvM from a vineyard will require a concentrated effort over a number of seasons which involves both persistence in monitoring and consistency in spot spraying.

Also refer to article, "Honeyvine Milkweed in Lake Erie Vineyards"

(LERGP Vineyard Notes, July 2014,

pages 18 – 21) https://nygpadmin.cce.cornell.edu/pdf/newsletter_notes/pdf42_pdf.pdf



Figure 3. Honeyvine milkweed climbing a Concord trunk. Photo: Andy Muza, Penn State.

North East PA Update

Bryan Hed, Research Technologist, Lake Erie Grape Research and Extension Center

Weather: Dry conditions continue to prevail over the grape belt, especially at locations close to the lake. Locations a little farther inland have fared better, and more southerly parts of Pennsylvania have been very wet this year (6.6" of rain at main Penn State campus last month!). At our location by the lake, rainfall during the first half of August has been way below average at 0.39", with only 1.23" since the beginning of July. We have accumulated 339.5 growing degree days so far during August and we now have 1935 gdds as of April 1 (ahead of seasonal average by about 4-5 days?). Rain is in the forecast for today tomorrow, and Saturday (I'll believe it when I see it), with high temperatures right around average.

Diseases: The dry weather throughout July and now August (at least along the lake) has kept the brakes firmly pressed on diseases like downy mildew, that are very dependent on regular moisture/rainfall for epidemic development. Over the past two weeks there have been no infection periods for this disease at our location according to DMCAst. Scouting areas of the belt that have had more rainfall may discover some downy mildew developing. For example, just a little farther inland, a sizeable downy mildew infection period was generated over the August 4-5 rainfall event when about an inch of rain fell on the North East escarpment. This provided the potential for further advance of this disease during the past couple of days (according to DMCAst), even though rainfall has been very minimal. The use of NEWA in combination with regular scouting will help you keep a watchful eye on the progress of this disease in your vineyard, especially if you're growing susceptible wine varieties.

The dry weather does not stop powdery mildew though and this disease continues to build on leaves (as it does every year). Late season sprays for powdery mildew on juice grapes should be based on crop size (the more above average the crop, the more necessary it will be to keep canopies clean) and anticipated weather conditions. And unfortunately, there is no formula to determine exactly how long you should continue powdery mildew sprays. It's probably too late to apply stilet oil, but nutrient sprays like Nutrol or even Harvestmore will provide some deterrent to buildup of mildew on leaves. Trials we've run in the past using these materials for late season powdery mildew control shows that they will provide about 30% control (suppression?) of mildew on Concord leaves. The more frequently these materials are applied, the better the suppression. For example, better suppression is achieved when sprays are applied weekly rather than every two weeks, which is not surprising. Alternatively, if you are going to apply one of the sterol inhibitor fungicides or something like Quintec, you should tank mix these materials with a Nutrol or Harvestmore-like material or sulfur (for varieties that are not damaged by it) for resistance management. Just keep in mind that excessive sulfur residues at harvest can have unfavorable impacts on grapes slated for wine making, especially if dry conditions continue through harvest. This is a more important issue for reds (that are fermented on the skins) than whites.



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LERGP Links of Interest:

Go to <http://lergp.cce.cornell.edu/> for a detailed calendar of events, registration, membership, and to view past and current Crop Updates and Newsletters.

LERGP Web-site:

<http://lergp.com/>

Cornell Lake Erie Research & Extension Laboratory Facebook page

<https://www.facebook.com/Cornell-Lake-Erie-Research-and-Extension-Laboratory-678754995584587/?fref=ts>

Efficient Vineyard Web-site:

<https://www.efficientvineyard.com/>

Table for: Insecticides for use in NY and PA:

<http://lergp.cce.cornell.edu/submission.php?id=69&crumb=ipm|ipm>

Crop Estimation and Thinning Table:

http://nygpadmin.cce.cornell.edu/pdf/submission/pdf65_pdf.pdf

Appellation Cornell Newsletter Index:

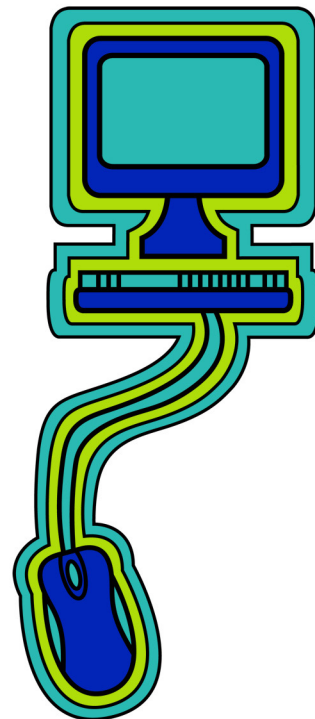
<http://grapesandwine.cals.cornell.edu/cals/grapesandwine/appellation-cornell/>

Veraison to Harvest newsletters:

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

NEWA:

<http://newa.cornell.edu/>





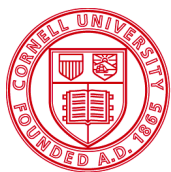
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