Cornell University
Cooperative Extension

Lake Erie Regional Grape Program

PennState Extension

CROP UPDATE JULY 11, 2019

Building Strong and Vibrant New York Communities
Diversity and Inclusion are a part of Cornell University's heritage. We are a recognized employer and educator valuing AA/EEO, Protected Veterans, and Individuals with Disabilities.

In this Crop Update:

- **Grape Berry Moth- Tim Weigle**
- **Concord Grape Crop Estimation- Jennifer Russo**
- **PA Weather and Disease Update- Bryan Hed**
- **2019 Coffee Pot Schedule**

The Lake Erie Regional Grape Program is a Cornell Cooperative Extension partnership between Cornell University and the Cornell Cooperative Extensions in Chautauqua, Erie and Niagara county NY and in Erie County PA.

IPM

Tim Weigle, NYSIPM, Cornell University, LERGP Team Leader

Grape Berry Moth

Grape berry moth damage

As seen in the table below, the warm temperatures of late have moved us closer to the 810 DD, which is the trigger for timing of insecticide applications against grape berry moth in vineyards that have been classified as being at high or intermediate risk for grape berry moth. We have been getting reports that the model is not working this year as it is not unusual to find “stings” on berries and some have even said they are finding larvae in the berries. Instead of being wrong, I think this year is showing the importance of knowing when wild grape bloom occurred near a vineyard block. Wild grape bloom is the biofix for starting accumulation of DD for the GBM model and the model will provide a predicted date using information from a historical database of temperature and phenology information. While this predicted date is typically pretty close in most years, 2019 is one of those years where having the ability to input the wild grape bloom appears to significantly increase the accuracy of the model.

We had a great discussion at the Coffee Pot meeting yesterday about models and how they are meant to be a tool to use in addition to a growers knowledge of the vineyard, overwintering populations of GBM, and effectiveness of previous management strategies.

If you can remember back to the grape berry moth risk assessment protocol, vineyards were scouted during the third week of July to determine the need to spray in the first week of August. Research over the years has improved the timing for both scouting and spraying. Scout vineyards now to determine if you have grape berry moth damage that exceeds the 6% damaged cluster threshold and then come up with your management strategy. If you are using a material that needs to be ingested, like Alachor, Intrepid or a Bt product, you should time applications at the 810 DD so the material is on prior to the majority of larvae hatching. If you are using contact insecticides (like most all the other materials) you should time those at 910 DD to give you a larger population to target.

If you have any questions about implementing the grape berry moth model in your vineyard IPM strategy, please give me a call.

NEWA Location	Wild grape bloom date*	DD Total on July 11, 2018	Forecasted DD for July 16, 2018	Forecasted date 810 DD
Versailles	June 7	726	846	July 15
Hanover	June 8	722	844	July 15
Sheridan	June 6	775	898	July 13
Silver Creek	June 8	721	836	July 15
Dunkirk Airport	June 9	718	836	July 15
Forestville	June 8	725	843	July 15
East Fredonia	June 9	697	820	July 16
Fredonia	June 9	668	790	**
Brocton Escarp.	June 9	693	815	July 16
Portland Escarp.	June 7	750	870	July 14
Portland	June 8	728	848	July 15
East Westfield	June 9	696	815	July 16
Westfield	June 9	694	814	July 16
Ripley	June 8	741	866	July 14
Ripley Escarp	June 8	717	842	July 15
Ripley State Line	June 8	738	863	July 14
North East State Line	June 9	699	815	July 16
North East Escarp	June 7	752	873	July 14
North East Sidehill	June 8	729	849	July 15
North East Lab	June 8	749	872	July 14
Harborcreek	June 8	731	856	July 15
Harborcreek Escarp	June 9	685	813	July 16
Lake City	June 7	763	889	July 13
Ransomville	June 11	686	816	July 16
Burt	June 19	500	625	**
Corwin	June 13	641	773	**
*** Estimated date provided by NEWA website** **** Not in current time frame of model results**				

Table 1. Phenology-based Degree Day model results for Grape Berry Moth by NEWA station location in the Lake Erie Region on July 11, 2019.

Viticulture

Jennifer Russo, Viticulture Extension Specialist, LERGP

Concord Grape Crop Estimation How-To Guide

Historically, using the mean (average) fruit mass from random samples in a vineyard to arrive at a whole-field crop estimate predicts yield to within 15-20%. Accurate estimations are hindered by the inability of a relatively low number of random samples to capture the variation in vine growth and production. Improving the crop estimation accuracy by spatially stratified sampling captures the variation and provides the opportunity for vineyard managers to develop and implement a crop load management plan that maximizes fruit quality and promotes perennial vineyard health and crop potential. Improved crop estimations also increase the efficiency of harvest logistics for growers and processors alike.

For processors, errors in yield prediction have major effects for the planning of delivery schedules, allocation of tank space and fermentation or concentration equipment, staffing of personnel and negotiation of contracts with growers for the future. Crop load management is dependent on accurate spatial assessment of vine size and crop. For growers, making crop load management decisions that ensure adequate ripening of fruit and promote perennial vineyard health is futile without an accurate estimate of what harvest yield will be. This estimate must be made while there is still time in the season to see benefits from correcting crop imbalances.

The LERGP is committed to providing researched based management tools and guidance to aid our region stakeholders to get the most out of their vines in a sustainable way. This Concord Grape Crop Estimation How-To Guide is an applied science management tool that will walk one through the crop estimation process for manual sampling and mechanical sampling. Through the crop estimation work of Dr. Terry Bates, the Crop Estimation and Thinning Table provided below was developed.

A Grower needs to know their Row Spacing, Vine Spacing, Vineyard Variation (spatial maps provided by our free loaner sensor program or historical knowledge), and Days After Bloom. It is important to know the bloom date for your individual blocks. The official bloom date at CLEREL for 2019 was June 20th.

Using your spatial maps (or historical knowledge) walk through the guide to help with your crop estimation and there is an example below.

Concord Crop Estimation Guide

Collecting a little bit of information from the vineyard during the growing season can greatly improve your prediction of final yields with better accuracy than the eyeball method. Know your Bloom Date, Space between Vines, & Space between Rows. Calculate how many vines equate to 1/100th of an acre, and know how many Days After Bloom (DAB) samples were collected.

Example:

- **Row & Vine Spacing**. If you have 9’ between rows, look at the table provided to the box in the lower left-hand corner to find the corresponding footage that equates to 1/100th acre. For 9’ between row calculations for you which equals **48.4 feet.**

- Here is where your Vine Spacing becomes important. How many vines are in **48.4 feet** if vines are spaced **8** feet apart? **48.4/8 = 6.05 vines (round down to 6)**

- **Use Spatial Map to direct Sample locations to capture vineyard variation (or use your knowledge or variation within your vineyard).**

- **Clean Pick Fruit from Calculated 1/100th Acre (In this example it equals 6 vines from 48.4/8).** Clean pick fruit from 2 vines from high vigor zone, 2 vines from medium vigor, and 2 vines from low vigor.

- **Total Weight of lbs of Fruit Collected.** Weigh each sample taken above, be sure to subtract the weight of the bucket or bin used from total weight sum weights from all 6 samples to get total weight.

- **Consult Table on Back to Find Corresponding Crop Estimation.**

Mechanical Crop Estimation

Cut a length of rope to guide your sampling lengths, lay it down along the row, clean pick with the harvester the length of the rope, weigh lbs of fruit collected. Walk behind afterwards to assess how many grapes are still on the vine/or that are on the ground.

Using the Chart:

Once you have the sample, the chart does the rest of the work for you. Follow the corresponding DAB down and the respective weight over and you have the estimated tons/acre at harvest. For example, let's say it's July 25th or 40 DAB (bloom on June 15th) and the fruit weighs 100 pounds. Crop estimated 8.3 ton/acre potential crop.

Concord Crop Estimation Guide

Collecting a little bit of information from the vineyard during the growing season can greatly improve your prediction of final yields with better accuracy than the eyeball method. Know your Bloom Date, Space between Vines, & Space between Rows. Calculate how many vines equate to 1/100th of an acre, and know how many Days After Bloom (DAB) samples were collected.

Example:

- **Row & Vine Spacing**. If 9' between rows the table provides the 1/100th acre calculation for you which equals **48.4 feet.**

- How many vines are in **48.4 feet** if vines are spaced **8** feet apart? **48.4/8 = 6.05 vines (round down to 6)**

- **Use Spatial Map to direct Sample locations to capture vineyard variation.**

- **Clean Pick Fruit from Calculated 1/100th Acre (In this example it equals 6 vines from 48.4/8).** Clean pick fruit from 2 vines from high vigor zone, 2 vines from medium vigor, and 2 vines from low vigor.

- **Total Weight of lbs of Fruit Collected.** Weigh each sample taken above, be sure to subtract the weight of the bucket or bin used from total weight sum weights from all 6 samples to get total weight.

- **Consult Table on Back to Find Corresponding Crop Estimation.**

Mechanical Crop Estimation

Cut a length of rope to guide your sampling lengths, lay it down along the row, clean pick with the harvester the length of the rope, weigh lbs of fruit collected. Walk behind afterwards to assess how many grapes are still on the vine/or that are on the ground.

Using the Chart:

Once you have the sample, the chart does the rest of the work for you. Follow the corresponding DAB down and the respective weight over and you have the estimated tons/acre at harvest. For example, let's say it's July 25th or 40 DAB (bloom on June 15th) and the fruit weighs 100 pounds. Crop estimated 8.3 ton/acre potential crop.

Dr. Terry Bates: Crop Estimation and Thinning Table: 7/16/2003

	Time of Season														
	20DAB			25DAB		30DAB			40DAB	50DAB		Veraison			Harvest
	% of Final Berry Weight														
Pounds of Fruit Removed in 1/100th of an Acre	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**	**80**	**90**	**100**
10	2.5	2.0	1.7	1.4	1.3	1.1	1.0	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5
20	5.0	4.0	3.3	2.9	2.5	2.2	2.0	1.8	1.7	1.5	1.4	1.3	1.3	1.1	1.0
30	7.5	6.0	5.0	4.3	3.8	3.3	3.0	2.7	2.5	2.3	2.1	2.0	1.9	1.7	1.5
40	10.0	8.0	6.7	5.7	5.0	4.4	4.0	3.6	3.3	3.1	2.9	2.7	2.5	2.2	2.0
50	12.5	10.0	8.3	7.1	6.3	5.6	5.0	4.5	4.2	3.8	3.6	3.3	3.1	2.8	2.5
60	15.0	12.0	10.0	8.6	7.5	6.7	6.0	5.5	5.0	4.6	4.3	4.0	3.8	3.3	3.0
70	17.5	14.0	11.7	10.0	8.8	7.8	7.0	6.4	5.8	5.4	5.0	4.7	4.4	3.9	3.5
80	20.0	16.0	13.3	11.4	10.0	8.9	8.0	7.3	6.7	6.2	5.7	5.3	5.0	4.4	4.0
90	22.5	18.0	15.0	12.9	11.3	10.0	9.0	8.2	7.5	6.9	6.4	6.0	5.6	5.0	4.5
100	25.0	20.0	16.7	14.3	12.5	11.1	10.0	9.1	8.3	7.7	7.1	6.7	6.3	5.6	5.0
110	27.5	22.0	18.3	15.7	13.8	12.2	11.0	10.0	9.2	8.5	7.9	7.3	6.9	6.1	5.5
120	30.0	24.0	20.0	17.1	15.0	13.3	12.0	10.9	10.0	9.2	8.6	8.0	7.5	6.7	6.0
130	32.5	26.0	21.7	18.6	16.3	14.4	13.0	11.8	10.8	10.0	9.3	8.7	8.1	7.2	6.5
140	35.0	28.0	23.3	20.0	17.5	15.6	14.0	12.7	11.7	10.8	10.0	9.3	8.8	7.8	7.0
150	37.5	30.0	25.0	21.4	18.8	16.7	15.0	13.6	12.5	11.5	10.7	10.0	9.4	8.3	7.5
160	40.0	32.0	26.7	22.9	20.0	17.8	16.0	14.5	13.3	12.3	11.4	10.7	10.0	8.9	8.0
170	42.5	34.0	28.3	24.3	21.3	18.9	17.0	15.5	14.2	13.1	12.1	11.3	10.6	9.4	8.5
180	45.0	36.0	30.0	25.7	22.5	20.0	18.0	16.4	15.0	13.8	12.9	12.0	11.3	10.0	9.0
190	47.5	38.0	31.7	27.1	23.8	21.1	19.0	17.3	15.8	14.6	13.6	12.7	11.9	10.6	9.5
200	50.0	40.0	33.3	28.6	25.0	22.2	20.0	18.2	16.7	15.4	14.3	13.3	12.5	11.1	10.0

Row Spacing determines length of 1/100th of an acre
10.0 feet row spacing = 43.5 feet = 1/100th of an acre
9.5 feet = 45.9 feet = 1/100th of an acre
9.0 feet = 48.4 feet = 1/100th of an acre
8.5 feet = 51.2 feet = 1/100th of an acre
8.0 feet = 54.45 feet = 1/100th of an acre
7.5 feet = 58.1 feet = 1/100th of an acre

Calculation
43, 560 square feet per acre
Divide by row spacing and then
divide by 100 to get 1/100th of an acre

Example:
A grower has 9 foot row spacing and clean picks 48.4 feet at 25 days after bloom. The fruit weighs 80 pounds and the grower estimates that the berries are between 35% and 40% of final berry weight. According to the table, the crop estimate is between 10.0 and 11.4 tons per acre.

Disclaimer:
This table gives the relationship between time of season and % final berry weight on an average year. Year to year variability in weather related berry growth adds error to this table. Information on current year berry growth can be obtained from the Fredonia Vineyard Lab (or) it is strongly suggested that individual growers start collecting berry weight information from their own individual vineyard blocks.

PA Update

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

Weather: Early July rainfall has been well below average along the lakeshore, as has been our pattern over the past 3 years or so. We have recorded only 0.35" for July (including the 0.06" we got just this morning) at our location by the lake, whereas weather stations positioned farther inland, along the North East and Harborcreek escarpments, have recorded 2 or 3 times more rain (closer to average). We have accumulated about 236 growing degree days so far during July, which is a departure from the cool trend we experienced during May and June. So, we may have gained a little more toward average on heat accumulation for the season, which is a good thing. We now have about 997 gdds as of April 1 (still below average). There is no rain in the short-term forecast (after today), with high temperatures somewhat bouncing around average.

Phenology: Our annual sample of berries on July 10 (which goes back to 1961) revealed that we are indeed behind average on berry size and weight (no surprise there). Berries weighed in at 0.53 grams this year. Looking out over the past 20 years, our range of berry weights falls between 0.16 grams (2003; you remember the huge crop, ungodly wet and cool weather all season, etc) and 1.78 grams (2010; very warm May through August, cooler harvest period). This year most closely resembles berries in 2009 (10 years ago) when we also had a cool start to the season. However, July this year has started out very different than July of 2009. The first 10 days of July of 2019 has been much dryer and warmer, jumping ahead of 2009 by about 90 gdds.

Diseases: The rain that was forecast over last weekend did not materialize for the Erie lake plain as the 'powers that be' pushed it all south of Interstate 90. However, I am noting differences in rainfall between PA lakeshore vineyards and those on the escarpment earlier in July, that generated infection periods for Phomopsis, black rot, and downy mildew at escarpment vineyards. In other words, vineyards along the PA escarpment currently appear to be at higher risk than those along the lakeshore. Therefore, keep scouting your vineyards for diseases, especially black rot and downy mildew that will continue to be threats to your livelihood for a few more weeks of fruit susceptibility (up to 5-6 weeks after bloom for black rot). If you are seeing black rot symptoms on fruit/leaves, a second post bloom application of fungicide is recommended. This year, fruit is likely to remain susceptible to black rot for the entire month of July. As for downy mildew, fruit may be fast developing resistance to direct infection, but cluster stems will remain susceptible for a few weeks longer, especially for susceptible varieties like Niagara and many wine grape varieties. Infection of cluster stem tissue can still lead to crop loss through shelling and "leather rot" of berries. Pay attention to wetting periods and know what is developing in your vineyards through scouting.

We are about 2 weeks post bloom and that means that berries of Concord and Niagara are fast developing resistance to powdery mildew. As control of this disease shifts to primarily protecting leaves, take stock of your potential yields. Vineyards with heavier than average crops (a common occurrence this year?) will benefit from prolonged protection from powdery mildew to maximize the efficiency of canopies for sugar production. There is no formula for just how long you need to continue leaf sprays for powdery mildew; it depends on how much above average your production is on a block by block basis. The more 'above average' your crop is, the more affordable are the extra leaf sprays (if you can get the crop ripe) and the longer protection will be needed to keep canopies clean.

Phomopsis should be winding down as a threat, not because of any lowering of susceptibility (fruit continue to be susceptible), but because spore sources of the pathogen generally become 'milked' out a few weeks after bloom.

Sour Rot Survey

Sour rot presented significant challenges last season for many growers in NY and other grape producing states in the eastern US and Canada. As part of a multi-state effort to better understand the scope of the sour rot problem, current level of knowledge, and current practices I am reaching out to you to request that you fill out a short online questionnaire at the link below. It's only a few questions so hopefully it will not take much time but information on your sour rot situation would be very helpful as researchers and extension educators develop our response. Thank you very much for your valuable input and your time.

While typically thought of as an issue in wine grapes, the Concord industry is not immune as we hang crops later and later into the season and grape berry moth damage provides an entrance wound for rots to develop.

https://missouri.qualtrics.com/jfe/form/SV_20jaSAmZ9wdggex

2019 New York Vineyard Acreage Survey

The New York Wine & Grape Foundation (NYWGF), Cornell Cooperative Extension (CCE), members of the New York grape industry, and Cornell University's Survey Research Institute (SRI) are cooperating to conduct a new vineyard acreage survey for New York State.

Until 2012, the New York office of the National Agricultural Statistics Service (NASS) conducted a vineyard acreage survey approximately every five years. Unfortunately, NASS has indicated that they will no longer be conducting these surveys due to a lack of funding. The information being requested in this survey is very similar to that collected by NASS in previous surveys, in hopes that growers will find it to be a familiar exercise and therefore increase participation.

The results of this survey will help us to better understand the current state of the grape industry in New York. This information will be important in the development of new programs and initiatives, research projects, outreach to media and consumers, and much more over the next several years. The hope is that this survey can be conducted every 3-4 years in order to document how the industry is changing over time.

Please know that all data received through this survey will be kept confidential by the SRI. Data will only be published after it is aggregated, and no personally identifiable information will be made public.

<u>How to submit your information</u>

Did you receive an email from Cornell's Survey Research Institute to fill out the survey (be sure to check your spam or junk email folders)?:

The SRI sent out email invitations to New York growers last week, along with a reminder email this week. This invitation was sent to all growers (about 550) for whom we had an email address on the master list we are using for the survey. If you received this invitation from the Survey Research Institute, please take a few minutes to fill out and submit your information. By using the email link you are sent, you help to reduce the need to print and mailing paper versions of the survey, saving us some funds. **If you receive an email about the survey from somebody other than the SRI, DO NOT USE THE LINK IN THAT EMAIL**. Each grower receives a unique link for the survey, and should only use that link.

If you did not receive an email from the Survey Research Institute:

Don't fret, hard copies will be mailed shortly to those for whom we did not have email addresses, as well as those who did not respond to the initial email invitation to complete the survey.

When you receive your paper copy, there will still be an opportunity to enter your information online rather than using the form. Instructions will be included on the survey. If you prefer to submit your information with the paper survey, instructions will also be included, along with a postage-paid envelope to return it to the Survey Research Institute.

Responding to this survey is completely voluntary. However, this is intended to be a complete census so we need a response from every grower, and therefore your cooperation is very important to the accuracy of the report. The amount of time to complete the survey will depend on the size of your vineyard operation, but should not take a significant amount of time for most growers. **The survey will remain open until August 15, 2019.**

If you are unable to complete the questionnaire either online or by mailing in your response, or have any questions about the survey, a staff person from Cornell's Survey Research Institute can assist you. You can call the Survey Research Institute at (607) 255-3786 or (888) 367-8404.

GRAPE TWILIGHT MEETING
&
ERIE COUNTY HORTICULTURAL SOCIETY'S
ANNUAL CHICKEN BBQ

DATE: **WEDNESDAY, JULY 31, 2019**

PLACE: **Gravel Pit Park**
10300 West Main Road (Route 20), North East, PA 16428

TIME: GRAPE PROGRAM – 5:00 - 6:15 P.M.
FREE CHICKEN BBQ – After the Program

NOTE: Farm Equipment Display by Various Vendors – 3:30 to 7:00 P.M.

GRAPE PROGRAM:

- **Information on Grants available to Grape Growers** – 5:00 to 5:15 P.M.
- **Revisions to the Worker Protection Standards – What Does It Mean to You -** 5:15 to 5:45 P.M.
  Jim Harvey, PA Office of Rural Health, Penn State University
- **Insect and Disease Management Updates –** 5:45 to 6:15 P.M.
  Bryan Hed, Lake Erie Regional Grape Research & Extension Center, North East, PA
  Andy Muza, Tim Weigle, Kevin Martin and Jennifer Russo, Lake Erie Regional Grape Extension Team

This meeting has been assigned:
- 1 Core and 1 Category pesticide re-certification credits approved by PA Department of Agriculture; and
- 1 pesticide re-certification credit (pending approval by NYDEC) for New York growers.

NOTE: The BBQ is free but REGISTRATION is mandatory.

Erie County Horticultural Society's NEW POLICY: <u>No Reservations will be taken after 4:00 PM on Monday, July 22, 2019. There will be a limit of 6 reservations per farm.</u>

Register by Monday, July 22, by calling Terri at Penn State Extension Erie County at (814) 825-0900, Ext. 0.

INSURING GRAPES

NY, 2019

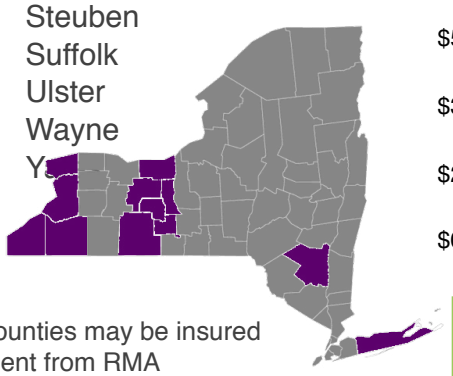
Crop insurance is a safety net for farmers that helps you **manage risk**. If you have a crop failure, crop insurance can help you farm again next year.

Important Insurance Deadlines

- **Aug. 15, 2018:** Premium Billing Date
- **Nov. 20, 2018:** Sales Closing, Policy Change, Cancellation, Termination Date
- **Nov. 20, 2019:** End of Insurance Period
- **Jan. 15, 2019:** Acreage / Production Report Date

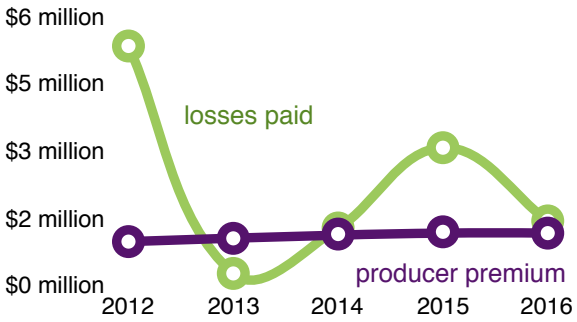
Over 40 grape varieties are insurable in these counties:

Cattaraugus
Chautauqua
Erie
Niagara
Ontario
Schuyler
Seneca
Steuben
Suffolk
Ulster
Wayne
Yates



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

NYS Grape Crop Insurance



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

Learn more & sign up:

Learn more about crop insurance options available to New York producers at agriskmanagement.cornell.edu
To sign up, contact a crop insurance agent. Find an agent using the Agent Locator tool at rma.usda.gov/en/Information-Tools/Agent-Locator-Page

Cornell University delivers crop insurance education in New York State in partnership with the USDA Risk Management Agency. Diversity and Inclusion are a part of Cornell University's heritage. We are an employer and educator recognized for valuing AA/EEO, Protected Veterans, and Individuals with Disabilities.

Cornell CALS
College of Agriculture and Life Sciences

USDA
U.S. Department of Agriculture
Risk Management Agency

LERGP
2019 COFFEE POT MEETING SCHEDULE

Date	Time	Location	Address
May 1, 2019	10:00am	John Mason Farm	8603 West Lake Rd. Lake City PA 16423
May 8, 2019	10:00am	Sprague Farms	12435 Versailles Rd. Irving NY 14081
May 15, 2019	10:00am	Paul Bencal	2645 Albright Rd. Ransomville NY 14131
May 22, 2019	10:00am	Arrowhead Winery	12073 East Main Rd. North East PA 16428
May 29, 2019	10:00am	Militello Farm Supply	2929 Route 39 Forestville NY 14062
June 5, 2019	10:00am	North East Fruit Growers	2297 Klomp Rd. North East PA 16428
June 12, 2019	10:00am	Thompson Ag - Corner of Hanover & Dennison	Silver Creek NY 14136
June 19, 2019	10:00am	Kirk Hutchinson	4720 West Main St. Fredonia NY 14063
June 26, 2019		NO COFFEE POT	
July 3, 2019	10:00am	Betts Farm	7366 East Route 20 Westfield NY 14787
July 10, 2019	10:00am	Jim Vetter	12566 Versailles Rd. Irving NY 14081
July 17, 2019	10:00am	Trolley Line Vineyards	11480 E. Main St. North East PA 16428
July 24, 2019	10:00am	Brian Chess	10289 West Main Rd. Ripley NY 14775
July 31, 2019	10:00am	Tom Tower Farm	759 Lockport St. Youngstown NY 14174