

Cornell Cooperative Extension Lake Erie Regional Grape Program

First Quarter Report 2022

A cooperative program between Cornell and Penn State Universities, Cornell Cooperative Extension Associations in Chautauqua, Cattaraugus, Erie and Niagara Counties, Penn State Extension – Erie County, NYS IPM Program, National Grape Cooperative, Constellation Brands, Walker's Fruit Basket and growers of the Lake Erie Grape Industry



2022 Winter Conference Series

The first quarter for the Lake Erie Regional Grape Program was extremely productive and packed with educational outreach opportunities. Our advisory committee meeting confirmed the value in a virtual learning platform that was a positive outcome from the pandemic. The ability to bring researchers and experts in their fields right into the living rooms of our growers for an educational program decreases the miles for travel, reduces pandemic anxieties, and allows for pesticide recertification credits for those unable to earn them in a shut down. Our grower and industry

panel provided input for necessary content to support our stakeholders. The LERGP 2022 Winter Conference Series was a direct effect of the input from this committee.

The 2022 Winter Conference Series was a hybrid model that offered a one stop shopping for research-based information and pesticide recertification credits. This Conference Series was made up of two virtual days, January 19, 2022 with 37 attendees, and February 16, 2022 with a Virtual Spray Program with 78 attendees, and one in-person day on March 16, 2022, which had 156 registrants. This Conference Series reached 271 attendees with research-based outreach during a time filled with trepidation and closed avenues. Our presentations/talks provided the opportunity to get information that you need to become compliant with the changes in Labor Laws, as well as learn about the information and resources you need to sustain vineyard production.

Cold Hardiness Monitoring

The New York Wine and Grape Foundation has funded our cold hardiness research for years. Each fall and winter, grapevine tissues produced during the growing season transition from a cold-tender to cold-hardy state. This process, known as cold acclimation, allows vines to survive low winter temperatures. Winter low temperatures that fall below a critical value can damage grapevine buds. The critical temperature for bud injury varies over the dormant season and responds to daily changes in temperature. As temperatures rise after mid-winter, grapevine tissues deacclimate in a gradual process, culminating in bud burst and active

Variety	Date	LTE 10 °F	LTE 50 °F	LTE 90 °F	high	low
Concord High	3/21/2022	1.71	0.7	-0.35	51	34
Concord Low	3/21/2022	4.32	2.17	0.39	51	34
Riesling 3309	3/21/2022	6.04	-1.79	-4.92	51	34
Vignole	3/21/2022	-1.59	-5.66	-8.82	51	34
Niagara	3/21/2022	3.18	-1.53	-2.74	51	34
Diamond	3/22/2022	4.37	1.45	-0.33	44.4	32.2
Delaware	3/22/2022	4.51	2.05	1.09	44.1	32.9
Foch	3/22/2022	6.62	4.15	0.10	44.4	32.2
Seyval	3/22/2022	2.84	1.62	-1.07	44.4	32.2
Steuben	3/22/2022	11.88	4.19	-4.92	44.4	32.2
Cab Franc	3/2/2022	0.02	-5.19	-6.09	36.3	23.3
Gewurztraminer	3/2/2022	-0.31	-6.81	-7.80	36.3	23.3
Pinot Gris	3/2/2022	7.34	-1.64	-4.16	36.3	23.3
Aurora	3/22/2022	-0.69	-4.81	-6.05	44.1	32.9
Vincent	3/22/2022	2.71	1.20	-0.56	44.1	32.9
Ives	3/22/2022	9.59	7.34	5.99	44.1	32.9
Traminette	3/22/2022	0.81	-2.15	-3.46	44.1	32.9
Elvira	3/22/2022	0.41	-1.88	-5.03	44.1	32.9



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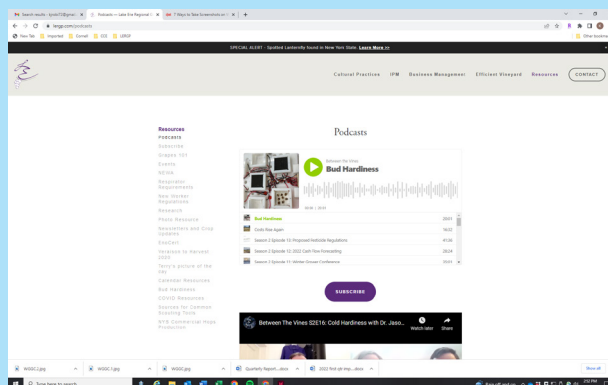
growth at the start of the growing season. How fast this process happens, and to what extent vine tissues survive extreme winter low temperatures, depends upon the cultivar, seasonal temperatures and how they vary, and the vine's condition as it enters the dormant season. We measure this critical temperature through a procedure called differential thermal analysis, which involves controlled freezing of a sample of buds collected from vineyards and reporting the Lethal Temperature where growers can experience 50% bud loss is reported at LT50 and posted on our website as well as in crop updates and podcasts. This information can be used to help guided management practices to compensate for potential losses. In 2021-2022, we monitored and reported cold hardiness for 17 cultivars. We monitor samples weekly from November to March.

Agricultural Improvement Program

We publicized the program through our Crop Update as well as our Hey Market Texting Application. This reached about 500 total contacts, about 200 unique contacts. While some were from outside Chautauqua county they were also appreciative of the information to share with their county representatives. Around 20 contacts were made, most were telephone, but text messages were also a form of communication used by growers. Growers seemed excited and motivated by the program and mentioned that it was much more useful than the Vineyard Improvement Program to improve profitability on their operations.

Podcasts

With a focus on timely information, our weekly podcast continued. This quarter, while covering countless topics, most of the focus was on labor, nutrition, and commodity prices. This quarter our podcast/vlog continued with 850 downloads/views. The audio podcast had 591 downloads this quarter. While most weeks averaged around 50, we had 109 downloads on the week of 1/31/2022. This appeared to follow our first in-person promotion of the conference. Following the conference, it appears a few individuals downloaded all 45 episodes. The video blog had 259 views this quarter.



In addition to the weekly podcast, we are doing a special edition of between the vines called "Musings with Muza". These will go live once they've all been recorded and possibly edited. In the first quarter we created about 5 hours of content.



Vineyard Improvement Program

One new application from Chautauqua County has been added this quarter to remove 15.08 acres of Concord vineyard. This brings the total acreage to be removed with the program to date to 398 acres by 31 applicants.

To date 187.3 acres have been removed and the projects completed by 16 of the applicants.


One initial site visit was completed for the new applicant. Multiple attempts were made to get the project expenses needed to finalize a pending reimbursement from 2021. No reimbursements were completed this quarter.

Phone and email consultations again continued through this quarter for both prospective applicants and in support of current applicants.

Information regarding this program was again presented in the crop updates and newsletters from the Lake Erie Regional Grape Program. The information was also made available to the growers attending the 2022 LERGP Winter Growers' Conference in March. Contacts were made during the conference with multiple program applicants.

NEWA

Two new stations were ordered during this quarter to replace ageing stations in our region. By measuring the impact of each station on acreage of vineyard in a 1 mile radius, and taking into account the age and functionality of each station, we determined that the Ransomville and Silver Creek stations were the most in need of an update. Due to supply chain issues and ordering delays, the stations were ordered in this quarter but will not be set up until next quarter. The Ransomville station is currently a Rainwise station and will be replaced by a Rainwise station. This seems to work well at that particular site. The Silver Creek station which is also a Rainwise station will be replaced with an Onset HOB0 station. This site has had some difficulties in the past and we are hoping that the different station will be more reliable here.



Date (Local Time)	Air Temp (°F)	Precip (inches)	PMI (in)	Leaf Wetness (minutes)	Wind Dir (degrees)	Wind Spd (mph)	Wind Dir (degrees)
03/23/2022 20:00	48.7	0.01	82	10	0	15.2	109
03/23/2022 21:00	47.7	0	81	0	0	8.6	91
03/23/2022 22:00	47.5	0.06	86	60	0	17.4	106
03/23/2022 23:00	47	0.09	93	90	0	0.6	200
03/24/2022 00:00	46.5	0.02	93	60	0	26.6	160
03/24/2022 01:00	46.3	0	94	0	0	25.7	162
03/24/2022 02:00	46.9	0.01	96	60	0	23.5	161
03/24/2022 03:00	46.9	0	96	0	0	18.9	162
03/24/2022 04:00	50.6	0	96	0	0	16.5	169
03/24/2022 05:00	50.4	0	95	0	0	17.1	185
03/24/2022 06:00	49.6	0	94	0	0	10	212
03/24/2022 07:00	49.1	0	93	0	0	12	211
03/24/2022 08:00	48	0	94	0	0	10.4	218

Occasional outages were dealt with in a number of the stations, and a few issues were diagnosed that need to be addressed in the near future. The county wide power outage on March 23rd was responsible for the Westfield station outage until the 24th. NEWA was able to fill that missing data with estimated data. The East Westfield station was not affected because it does not rely on electricity to send the data. Both the Portland and North East Lab stations registered extra precipitation during the big wind storm on March 31st. NEWA was contacted and those numbers were adjusted to reflect the actual precipitation.



First Quarter 2022 totals:

Publications - Lake Erie Vineyard Notes Newsletters (1) and LERGP Crop Updates (6)

Podcasts(10) - weekly podcasts available on <http://lergp.com/podcasts>

Web resources - <http://lergp.cce.cornell.edu>, <http://lergp.com> and

<https://www.efficientvineyard.com>

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