NYWGF RESEARCH PROGRAM

Funding for fiscal year April 1, 2025 – March 31, 2026

SECTION 1:

Project title: Increasing the Reliability and Scope of NEWA Weather and Pest Model Information

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New Research ☐ **Continued Research** ☒

Viticulture ☒ **Enology** ☐

Amount Requested **$** 53,010

SECTION 2:

Project Summary:
Grape growers face the risk each season of their vineyards being attacked by insects and diseases whose severity is dependent on the current season's weather conditions. This work aims to support our industry stakeholders through continued increased reliability of weather and pest model information through monitoring, machine maintenance, adoption of the NEWA phenology-based pest models, future adoption of cold hardiness models, and to increase the effective area of NEWA weather and pest model information through expansion of the weather instrument network in the Lake Erie, Finger Lakes, Hudson Valley, and Long Island grape growing regions across New York State. By increasing the size of the effective area being covered and significantly improving the reliability of the weather and pest model data, the adoption of cost-effective, research-based IPM practices will become much more widespread as a result of better grower education gained through NEWA resources.

SECTION 3

Objectives:

1. Continue to increase reliability of weather and pest model information provided through the NEWA website through monitoring and machine maintenance in the Lake Erie and Finger Lakes Regions and expand these important efforts to Hudson Valley and Long Island regions.
2. Increase adoption of the NEWA phenology-based insect degree-day risk forecast for timing of management strategies for grape berry moth, as well as the NEWA disease risk forecast tools for powdery mildew, downy mildew, black rot and Phomopsis in the above-mentioned regions.
3. Increase effective area of NEWA weather and pest model information through expansion of the Kestrel (Rainwise)/Onset weather instrument network in the Lake Erie, Finger Lakes, Hudson Valley, and Long Island grape growing regions.

Justification of Research: Grape growers in WNY, Finger Lakes, Hudson Valley, and Long Island face the risk each season of their vineyards being attacked by insects and diseases whose severity is dependent on the current season's weather conditions. This results in growers needing to modify their vineyard Integrated Pest Management (IPM) strategy on a yearly, monthly and, sometimes, daily basis. Research-based IPM practices have been developed and modeled for grape pests on the Network for Environment and Weather Applications (NEWA) website. A 2007 survey found that NEWA users in NY can save, on average, $19,500 per year in spray costs and potentially prevent $264,000 per year in crop loss as a direct result of using NEWA IPM forecast tools. The Lake Erie Mesonet weather network was expanded from 4 to 12 weather instruments in the Lake Erie region in 2011/2012 and from 12 to 22 in 2018. The network further expanded from 22 to 26 in 2023, though the Portland Escarpment station had been decommissioned due to the sale of the farm. Nevertheless, the Finger Lakes Grape Region has a number of aging machines that are unreliable. In 2023, the network saw improvements with the addition of one new station in Williamson (Young Somer) and the replacement of three aging stations. Despite having three NEWA stations that directly support grape production, the Hudson Valley needs more in order to ensure that reliable data is available for more grape producers. The same holds true for Long Island, which, according to Alice Wise (viticulture specialist with Cornell Cooperative Extension of Suffolk County), has zero reliable stations at present to support 1,987 acres. This has resulted in a critical need for a technician to shift a portion of time that should be focused on crop maintenance to installing, monitoring, and maintaining the weather network in order to keep a robust stream of data flowing to NEWA, thereby ensuring the reliability of pest model information. A number of the disruptions in the stream of weather data can be diagnosed and corrected by a simple phone call, while others require a visit to the station to correct the problem. Increased weather and pest model information provides the opportunity for expanded grower education, training, and practical exposure to the resources available on the NEWA website. By increasing the size of the effective area being covered and significantly improving the reliability of the weather and pest model data, the adoption of cost-effective, research-based IPM practices will become much more widespread as a result of better grower education gained through NEWA resources.

Materials & Methods:

Objective 1. Increase reliability of weather and pest model information provided through the NEWA website through monitoring and machine maintenance. Daily monitoring during the work week of the NEWA sites associated with grape growing in the Lake Erie and Finger Lakes grape regions will be conducted to ensure that any problems with collection or dissemination of weather and grape pest model information is dealt with in a timely and efficient manner, keeping downtime at a minimum. When a problem does arise, the technician will troubleshoot the problem with the grower over the phone (many communication issues can be easily fixed this way); if this does not fix the problem, a site visit will be set up to address it. For issues that cannot be dealt with in the field, the technician will collaborate with Kestrel/Rainwise to get the unit in for repair.

Objective 2. Increase adoption of the phenology-based degree-day model for timing of management strategies for grape berry moth, powdery mildew, downy mildew, black rot, Phomopsis, and cold hardiness prediction. Growers across New York State and Erie County, Pennsylvania will be provided the opportunity to receive education on NEWA resources for grapes. Text blast notifications will be sent to subscribers for extreme weather events through the monitoring of the data by the NEWA technician. In addition to the text alerts, small group training sessions (in person or via Zoom video conferencing) will be held throughout the growing season to familiarize them with accessing information on NEWA and to provide an opportunity for a more in-depth understanding of how the information can be used to make decisions in their vineyards.

Growers will be surveyed in group meetings to develop a baseline of current practices (NEWA models, calendar sprays, etc.) used to manage vineyard pests. This information will be used to develop the appropriate extension programming to provide growers with the tools they need to effectively manage their vineyard pests. Correlations between the insect and disease model outputs found on NEWA, with actual management strategies used, will be accomplished through grower meetings. Survey information will allow us to develop a cost/benefit analysis of using the information found on NEWA to manage vineyard pests. Combining spray management strategies with the Grape Berry Moth model information found on NEWA will provide insight into causes of late season grape berry moth damage. This year we will also provide education on the expected integration of Cornell's Cold Hardiness Prediction Model into the NEWA network as appropriate.

Objective 3. Increase effective area of NEWA weather and pest model information through expansion of the Kestrel (Rainwise)/Onset weather instrument network in the Lake Erie, Finger Lakes. Hudson Valley, and Long Island grape growing regions. This objective is to increase effective areas with the installation of Kestrel (Rainwise)/Onset weather instruments purchased from this grant to expand and upgrade the NEWA network in our Lake Erie, Finger Lakes, Hudson Valley, and Long Island regions.

Expected Outcomes: Growers will become better able to adjust their vineyard IPM strategy against damage from primary diseases and grape berry moth using the weather and pest model information found on NEWA. This will lead to increased profitability by enabling growers to limit crop loss from insects and disease pests. The information presented in NEWA regarding late season grape berry moth damage will allow growers to adopt practices that will enhance the quality and quantity of grapes delivered to processors, thereby also yielding higher profits.

Communication of Results: Information will be provided to growers through on-site visits, small group meetings, Zoom videoconference events, newsletter articles, text blast notifications, the NEWA website (newa.cornell.edu) and the NEWA blog (http://blogs.cornell.edu/yourenewa).

SECTION 4: BUDGET

Additional Funding: Please include in this section any information regarding additional private sector funds expected from outside sources. Please identify if these funds will run through NYWGF or go directly to your employer.

Project Name:	Increasing the Reliability and Scope of NEWA Weather and Pest Model Information	
Contract Period:	From:	04/01/25
	To:	03/31/26

CATEGORY OF EXPENSE		GRANT FUNDS
1. Personal Services		
a) Salary		$16,686.00
b) Fringe		$11,717.00
	Subtotal	$28,403.00
2. Non Personal Services		
a) Contractual Services		$0.00
b) Travel		$3,810.00
c) Equipment		$0.00
d) Operating Expenses		$12,711.00
e) Other		$8,086.00
	Subtotal	$24,607.00
	TOTAL	$53,010.00

SALARY					
POSITION TITLE (Exempt)	**ANNUALIZED SALARY PER POSITION**		**PERCENT OF EFFORT FUNDED**		**TOTAL**
Research Support Specialist	$62,582.00		25.000%		$15,646.00
				Subtotal	$15,646.00
POSITION TITLE (non-Exempt)	**HOURLY PAY RATE PER POSITION**	**STANDARD WORK HOURS PER WEEK**		**NUMBER OF WEEKS FUNDED**	**TOTAL**
Technical Support	$20.00	1		52	$1,040.00
				Subtotal	$1,040.00
TOTAL FRINGE					
Fringe Benefit rate @ 70.22%					$11,717.00
				Subtotal	$11,717.00

TRAVEL - TYPE/DESCRIPTION	TOTAL
Mileage to field sites, meet with growers, and present extension workshops.	$3,710.00
Cornell fuel costs via CU Fleet Services	$100.00
TRAVEL TOTAL	$3,810.00

OPERATING EXPENSES - TYPE/DESCRIPTION	TOTAL
Materials & Supplies - batteries, sensors, switch assemblies, solar sensors	$600.00
Weather Station Cellular Service Fees	$299.00
Equipment (under $5K) - Kestrel (Rainwise) and Onset weather stations 4 in total at $2953/station	$11,812.00
OPERATING EXPENSES - TOTAL	$12,711.00

OTHER EXPENSES - TYPE/DESCRIPTION	TOTAL
Indirect Costs - Direct Costs x 18%	$8,086.00
OTHER EXPENSES - TOTAL	$8,086.00

TOTAL REQUEST	**$53,010.00**

Budget Justification:

Wages: ($16,686)
Research Support Specialist (0.25 FTE = $15,646) will be responsible for NEWA equipment monitoring and maintenance in the Lake Erie and Finger Lakes regions. Research Support Specialist will be responsible for daily monitoring of Kestrel(Rainwise) and Onset weather stations that are associated with vineyards in the Lake Erie and Finger Lakes region. This individual will also assist the NYS Grape IPM Specialist in the routine upkeep, calibration and repair of the Kestrel(Rainwise) and Onset weather stations. Research Support Specialist position will be involved in the collection of grower and field data in support of the NEWA pest model implementation portion of this grant.

Extension Technician (0.05 FTE = $1,040) will assist growers during the growing season with set up of new stations and periodic site visits for troubleshooting.

Fringe Benefits: ($11,717)
Fringe Benefits are calculated at the Cornell rate of 70.22%.

Travel ($3,810)

Mileage reimbursement: ($3,710)
Funding is requested for travel to field sites, to meet with growers and to present extension workshops; personal and program-owned vehicles will be used for this travel. LERGP requests mileage reimbursement for personal vehicles as follows:

- An average of 400 miles per month is requested for travel to weather stations for maintenance and calibration operations. 400 miles per month x $0.70 per mile x 12 months = $3,360
- Other regions Mileage: 500 miles is requested to travel to station sites for installation and maintenance. 500 miles x $0.70/mile = $350.

Cornell fuel cost via CU Fleet Services: ($100) Funds are requested to cover Cornell fuel costs via CU Fleet Services in the amount of $100 for the LERGP Program vehicle to make field site and grower visits as well as to present at extension workshops.

Operating Expenses ($12,711)

- *Materials & Supplies*: ($600) Maintenance supplies are necessary to allow field repair of the most common problems associated with Kestrel(Rainwise) and Onset weather instruments, including 6V batteries, sensors, switch assemblies (rain gauge tipping bucket), and solar sensors. (6V Batteries: 3 at $20 = $60; 12V Batteries: 1 at $40 = $40: switches and sensors = $500)
- *Weather Station Cellular Service Fees:* ($299) NEWA collects weather data through the Internet from weather stations primarily located on farms. These weather stations transmit information either through wi-fi or cellular connections and are typically owned by growers who pay for both the weather station instrument and the wi-fi or cellular service. In certain cases, weather stations are located in certain areas/properties that are necessary to ensure data accuracy, but the weather instruments do not have an associated grower/owner. This funding would cover the service fee required to keep a cellular weather station operable, thereby ensuring data reliability for the network.
- *Equipment (under $5K):* Due to system device age, replacement is necessary for accurate functioning (four devices in total at $2,953 per station = $11,812).

Indirect Costs: ($8,086) calculated at 18% of Total Direct Costs.

Final Report

Increasing the Reliability and Scope of NEWA Weather and Pest Model Information

Project Overview

This project was designed to improve the reliability, accessibility, and practical use of NEWA weather and pest model information for grape growers across New York's major grape-producing regions. Grape growers must make frequent, weather-dependent decisions about insect and disease management, including management of grape berry moth, powdery

mildew, downy mildew, black rot, Phomopsis, and other production risks. The NEWA platform provides research-based weather and pest model tools that allow growers to better time pest management decisions, reduce unnecessary sprays, and protect crop quality and yield.

The 2025 project focused on three linked needs: maintaining and troubleshooting existing weather stations, increasing grower education and use of NEWA pest and disease models, and expanding the network into under-served grape-growing regions. These efforts were especially important in regions where station coverage was limited or unreliable, including Hudson Valley and Long Island, and in regions with aging or high-maintenance stations, including Lake Erie and the Finger Lakes. The project also supported the broader goal of preparing growers for increased adoption of phenology-based pest models and future cold hardiness model integration.

Original Project Objectives

Objective 1

Continue to increase reliability of weather and pest model information provided through the NEWA website through monitoring and machine maintenance in the Lake Erie and Finger Lakes Regions and expand these efforts to Hudson Valley and Long Island.

Objective 2

Increase adoption of the NEWA phenology-based insect degree-day risk forecast for grape berry moth and disease risk forecast tools for powdery mildew, downy mildew, black rot, and Phomopsis.

Objective 3

Increase the effective area of NEWA weather and pest model information through expansion of the Kestrel/Rainwise and Onset weather instrument network in the Lake Erie, Finger Lakes, Hudson Valley, and Long Island grape-growing regions.

Major Activities Completed

1. NEWA monitoring, troubleshooting, and grower support

A major project outcome was the high level of direct technical support provided to growers and station users. During the reporting period, project personnel supported NEWA users through:

Support Activity	Number Completed
Emails	**551**
Phone calls	**27**

Support Activity	Number Completed
Site visits	**67**
Crop updates	**21**
Newsletter articles	**1**
NEWA help desk tickets solved	**286**

These activities directly supported Objective 1 by maintaining the functionality of the NEWA weather station network and reducing downtime when stations or data streams experienced problems. The high number of emails, site visits, and help desk tickets demonstrates that the NEWA network requires active maintenance and user support to remain reliable. This also reinforces the justification for continued funding of technician time, travel, and station-maintenance supplies.

A key trend from this reporting period is that NEWA reliability is not simply a matter of installing weather stations. Continued monitoring, communication with station owners, troubleshooting, calibration, and repair are essential to keeping the network useful for growers. Many disruptions can be handled remotely through email or phone support, while others require on-site visits. The 67 site visits completed during this project period show that field-based support remains a critical part of maintaining station reliability.

2. Grower education and NEWA model demonstrations

The project also successfully expanded grower education around NEWA tools. NEWA information was delivered through winter meetings, regional updates, coffee pot meetings, the Hort Society annual meeting, crop updates, site visits, phone calls, and newsletter communication.

Documented outreach included:

Outreach Activity	Number Completed
Annual winter conference presentation	**1**
Coffee pot meeting NEWA demonstrations	**10**
Hort Society annual meeting NEWA demonstration	**1**
Crop updates including NEWA-related information	**21**
Newsletter article	**1**

The coffee pot meeting demonstrations were particularly valuable because they provided

informal, grower-facing opportunities to show how NEWA can be used in real time. These meetings helped translate the models from a web-based resource into a practical decision-support tool for vineyard management. This is important because adoption of model-based pest management depends not only on station coverage, but also on grower confidence in using the models.

These outreach efforts supported Objective 2 by increasing grower exposure to NEWA's grape berry moth, disease risk, and weather-based decision tools. They also helped reinforce the practical value of NEWA as a platform for timing vineyard management decisions based on current weather conditions rather than relying only on calendar-based spray schedules.

3. Weather station expansion and deployment

The project made meaningful progress toward expanding NEWA station coverage in under-served regions. Project personnel organized, ordered, and coordinated the deployment of new weather stations, including:

Region	Station Deployment Status
Long Island	Two stations deployed: Riverhead and Peconic
Hudson Valley	One station deployed at Cambridge
Hudson Valley / Northern site	Westport station handed off for installation
Lake Erie Region	One additional station pending installation once host post is set

This work directly supported Objective 3 by increasing the effective geographic area covered by NEWA weather and pest model information. The Long Island deployments were especially important because the original proposal noted that Long Island had no reliable stations at the time to support nearly 2,000 acres of grape production. Adding stations in Riverhead and Peconic helps address a significant regional gap in weather-based pest and disease forecasting capacity.

The Hudson Valley installations also address a documented need. The original proposal noted that Hudson Valley had some stations supporting grape production, but not enough to ensure reliable data for more producers. Adding Cambridge and coordinating Westport expands model access in a region where microclimate variation can strongly influence disease and insect risk.

Results by Objective

Objective 1: Increase reliability of NEWA weather and pest model information

This objective was substantially advanced through frequent monitoring, troubleshooting, and technical support. The project team resolved **286 NEWA help desk tickets**, conducted **67**

site visits, and provided extensive direct user support through more than **550 emails** and **27 phone calls**. These activities helped maintain the continuity and usability of NEWA weather and pest model information throughout the growing season.

The volume of support requests confirms that the network is actively used and that ongoing maintenance is essential. The project demonstrated that reliable NEWA service depends on both physical station infrastructure and human support capacity. Weather station data interruptions, sensor issues, communication failures, calibration needs, and user questions all require timely response to prevent model outputs from becoming unreliable or unavailable.

Objective 1 conclusion:

The project successfully improved and maintained NEWA reliability through active monitoring, troubleshooting, site visits, and help desk support. Continued technician and specialist support remains essential to sustaining station performance and grower confidence in NEWA model outputs.

Objective 2: Increase adoption of NEWA pest and disease models

The project advanced adoption of NEWA tools through grower education and repeated model demonstrations. NEWA was presented at the annual winter conference, demonstrated at **10 coffee pot meetings**, included in the Hort Society annual meeting, and reinforced through crop updates, email support, phone calls, site visits, and newsletter communication.

The strongest trend for this objective is that grower adoption requires repeated, practical exposure. Demonstrating NEWA tools during coffee pot meetings allowed growers to see how disease and insect models can be used in-season to support management decisions. These informal demonstrations are especially effective because they connect model outputs directly to the disease, insect, and weather conditions growers are seeing in their vineyards.

The project also supported the long-term goal of preparing growers for expanded use of phenology-based models, including grape berry moth risk forecasting and disease risk models for powdery mildew, downy mildew, black rot, and Phomopsis. The proposal also identified future education around Cornell's cold hardiness prediction model as an important opportunity.

Objective 2 conclusion:

The project increased grower exposure to NEWA decision-support tools through repeated, regionally based outreach. Grower education was delivered in multiple formats, with coffee pot meetings and crop updates serving as especially useful platforms for practical, in-season model interpretation.

Objective 3: Expand the effective area of NEWA weather and pest model information

The project made strong progress in expanding the NEWA weather station network. Four stations were organized, ordered, and coordinated for deployment, including two in Long Island and two in the Hudson Valley. Stations were installed at Riverhead and Peconic on Long Island, and at Cambridge in the Hudson Valley. The Westport station was handed off

for installation, and an additional Lake Erie station remains pending installation once the host site sets the post.

This expansion is significant because station location directly affects the accuracy and usefulness of weather-based pest and disease models. Expanding station coverage improves the relevance of NEWA outputs for more growers and helps address regional gaps where growers previously lacked reliable nearby data.

The Long Island expansion is a particularly important project outcome. The original proposal identified Long Island as a priority region because it lacked reliable stations to support grape production. The installation of Riverhead and Peconic stations represents a direct response to that need and should improve access to locally relevant weather and pest model data for Long Island grape growers.

Objective 3 conclusion:
The project successfully expanded NEWA station coverage in priority grape-growing regions, especially Long Island and Hudson Valley. Continued installation follow-up and station maintenance will be needed to fully realize the value of this expanded network.

Key Trends and Interpretation

Trend 1: NEWA requires active human support, not just station infrastructure

A major trend from the project is that weather station networks require continuous support. The project solved **286 help desk tickets**, completed **67 site visits**, and responded to hundreds of grower and station-related communications. This demonstrates that station reliability depends on regular monitoring, troubleshooting, and communication with growers and station hosts.

The project confirms that equipment alone is not sufficient. Stations must be maintained, data streams must be monitored, and users need timely assistance when problems arise. Without this support, pest and disease model outputs can become unreliable, reducing grower confidence and limiting adoption.

Trend 2: Station expansion is most valuable when paired with grower education

Installing new stations increases geographic coverage, but the full value of that investment depends on grower use. The project paired station deployment with outreach through coffee pot meetings, crop updates, winter conference presentations, and individual grower support. This combination is important because growers are more likely to adopt model-based tools when they receive repeated instruction on how to interpret the information.

Trend 3: Long Island and Hudson Valley remain priority regions for NEWA expansion

The project made important progress in Long Island and Hudson Valley, but these regions remain priorities. Long Island had a significant gap in reliable station coverage, and the installation of Riverhead and Peconic stations was a meaningful step toward addressing that gap. Hudson Valley also benefited from the Cambridge station installation and Westport coordination, but continued station support and regional training will be needed.

Trend 4: NEWA supports more responsive, weather-based IPM decision-making

The original justification emphasized that grape growers must adjust IPM strategies yearly, monthly, and sometimes daily depending on weather conditions. The activities completed during this project supported that need by maintaining weather data streams and helping growers access model-based information for grape berry moth and disease risk. Continued support for NEWA should improve grower ability to time sprays more precisely, respond to seasonal disease pressure, and reduce unnecessary applications where risk is low.

Regional

Lake Erie Region

The Lake Erie Region continues to rely heavily on NEWA for grape production decision support. The project supported this region through monitoring, troubleshooting, crop updates, site visits, grower communication, and preparation for an additional station installation. The pending Lake Erie station will further strengthen regional coverage once the host post is set.

The Lake Erie Region also illustrates the need for continued maintenance of an established network. Even where station density is greater than in other regions, ongoing maintenance is required to keep weather and pest model data reliable.

Finger Lakes Region

The Finger Lakes Region was included as a priority area because of aging and unreliable stations. Project support helped sustain the reliability of weather and pest model information in this region. Continued investment in replacement equipment, troubleshooting, and technician support will remain important as older stations continue to require maintenance or replacement.

Hudson Valley Region

The Hudson Valley benefited from direct station expansion and installation support. The Cambridge station was set up, and the Westport station was handed off for installation. These additions improve the region's access to weather-based decision tools, particularly in an area where more stations are needed to represent diverse vineyard conditions.

Long Island Region

Long Island was one of the most important beneficiaries of this project. The original proposal identified that Long Island had no reliable stations at present to support 1,987 acres of grape production. The deployment of stations at Riverhead and Peconic represents a significant improvement in regional capacity. These stations should increase the usefulness of NEWA pest and disease models for Long Island growers and provide a foundation for future outreach and adoption.

Project Impacts

The project had direct, measurable impacts on NEWA reliability, grower support, and station

expansion. The most important impacts include:

Impact Area	Accomplishment
Grower and station support	551 emails, 27 phone calls, 67 site visits
Extension communication	21 crop updates and 1 newsletter
Grower education	Annual winter conference presentation, 10 coffee pot meeting demonstrations, Hort Society annual meeting demonstration
Technical support	286 NEWA help desk tickets solved
Network expansion	New stations deployed or coordinated in Long Island, Hudson Valley, and Lake Erie
Long Island coverage	Riverhead and Peconic stations installed
Hudson Valley coverage	Cambridge station installed; Westport station handed off
Lake Erie coverage	Additional station pending host-site post installation

These impacts show that the project successfully addressed both the technical and educational components of NEWA adoption. The station network was expanded, existing stations were supported, and growers received repeated opportunities to learn how to use NEWA resources.

Challenges and Deviations

The primary implementation challenge was that not all planned station installations were fully completed during the reporting window. One Hudson Valley/Northern station, Westport, was handed off for installation, and one additional Lake Erie station remains pending because the host site must set the post before installation can proceed.

This type of delay is common with weather station deployment because successful installation depends on equipment availability, staff travel, landowner coordination, physical site preparation, and seasonal timing. These delays do not indicate failure of the project, but they do show the need for continued follow-up after station purchase and deployment planning.

Another ongoing challenge is the continued maintenance burden associated with the

network. The number of help desk tickets and site visits demonstrates that station reliability requires sustained staffing. This should be emphasized as a justification for continued funding.

Overall Conclusions

The 2025 NEWA project successfully improved the reliability, reach, and grower-facing use of weather and pest model information for New York grape producers. The project addressed a critical need by maintaining existing stations, troubleshooting data and equipment issues, responding to grower and station-owner questions, expanding the station network, and increasing grower exposure to NEWA pest and disease models.

The project's most significant accomplishments were the resolution of **286 NEWA help desk tickets**, completion of **67 site visits**, extensive grower communication through **551 emails**, and deployment or coordination of new weather stations in Long Island and Hudson Valley. The installation of stations in Riverhead and Peconic was especially important because Long Island had been identified as lacking reliable station coverage for nearly 2,000 acres of grape production.

Overall, the project demonstrated that NEWA is not simply a website or set of weather stations; it is a decision-support system that depends on reliable equipment, active monitoring, technical maintenance, and grower education. Continued investment in these activities is necessary to maintain grower confidence, improve adoption of model-based IPM, and support economically and environmentally sound vineyard management decisions.

The 2025 project made substantial progress toward increasing the reliability and scope of NEWA weather and pest model information for grape growers across New York State. Project personnel provided extensive technical and grower support, including 551 emails, 27 phone calls, 67 site visits, 21 crop updates, one newsletter article, and resolution of 286 NEWA help desk tickets. These activities helped maintain station functionality, troubleshoot data interruptions, and support grower confidence in using NEWA weather and pest model information.

The project also expanded grower education and adoption of NEWA tools. NEWA demonstrations were delivered at the annual winter conference, 10 coffee pot meetings, and the Hort Society annual meeting. These outreach events provided growers with practical instruction on using weather-based models to inform grape berry moth and disease management decisions. Repeated in-season exposure to NEWA tools helped connect model outputs to real vineyard decision-making.

Weather station expansion was another major accomplishment. The project organized, ordered, and coordinated the deployment of four new weather stations, including two on Long Island and two in the Hudson Valley. Stations were installed at Riverhead and Peconic on Long Island and Cambridge in the Hudson Valley; the Westport station was handed off for installation. An additional Lake Erie station is pending installation once the host site sets the post. These new stations will improve the effective coverage area of NEWA and provide more locally relevant data for growers in under-served regions.

Overall, this project strengthened NEWA as a practical IPM decision-support tool for New

York grape growers. The results demonstrate that maintaining NEWA reliability requires both equipment investment and sustained technical support. Continued funding is recommended to complete pending installations, maintain and replace aging stations, support grower education, and improve adoption of model-based pest and disease management across New York grape-growing regions.

Stakeholder Testimony: Long Island Station Installation

The value of the station expansion was immediately recognized by regional collaborators. Following the installation of the two Long Island weather stations supported by NYWGF, Alice Wise, Viticulture Educator at the Long Island Horticultural Research and Extension Center, shared the following feedback:

“Thank you so much for visiting Long Island last week to install the two new weather stations sponsored by the NY Wine & Grape Foundation. We are immensely grateful for the stations. Kimberly, it was extremely helpful to have your on-site expertise and troubleshooting skills. That will go a long way toward helping us to maintain the stations. It would have been a lot more difficult for us to try and set them up ourselves.”

This testimony highlights both the immediate regional value of the new Riverhead and Peconic stations and the importance of in-person technical support during station deployment. The Long Island installation did not simply add equipment to the NEWA network; it also built local capacity by providing hands-on troubleshooting and maintenance guidance to regional extension personnel. This is especially important because the original proposal identified Long Island as a priority region lacking reliable weather-station coverage to support grape production.