2026 LINLA INNOVATION GRANT APPLICATION

1. **Title of Innovative Project or Activity**
   Bayard Cutting Arboretum Horticultural Internship Program

2. **Project Contact**
   Joy Arden, Landscape Curator, Bayard Cutting Arboretum. 440 Montauk Highway, Great River, NY 11739. joy.arden@parks.ny.gov

3. **Cooperator(s)**
   The Natural Heritage Trust, 625 Broadway, Albany, NY 12207, (518) 474-2997
   nht@parks.ny.gov

4. **Brief summary of objective(s)**
   The Bayard Cutting Arboretum (BCA) Internship Program is a full time, three-month long immersion in public horticulture. Preference is given to those pursuing degrees in horticulture but is open to anyone with a passion for the trade. Horticultural Interns work in all areas of the gardens and participate in a wide range of horticultural experiences. Daily activities involve working directly with the Arboretum's staff, assisting with planting, watering, weeding, pruning, mulching and overall daily garden maintenance. Typically, interns rotate around the Arboretum working in each of the collections: Holly Collection, Four Season Garden, Woodland Garden, CSA Farm, Westbrook Wall Garden, Conifer Garden, Special Projects, and General Grounds.

5. **List previous projects that lead to the need for this one**
   The BCA Internship Program has been in operation since 2013. Many of our current staff started off as interns. We hired one of our 2025 interns as a full-time employee. Our other interns have gone on to work in the industry or continue their education locally. Interns work for NY State Parks, NYC Parks, San Francisco Parks, Starr Whitehouse, Cold Spring Harbor, Cornell Botanical Garden, Cornell Extension, as well as private landscaping companies. Every year we take great pride and responsibility in sharing horticultural knowledge and skill with our interns. Our hope is to introduce the beauty of horticulture to passionate interns!

6. **Outline this project**
   Interns gain hands-on experience, stressing plant identification, garden maintenance strategies and sound horticultural practices. Through fieldtrips, interns visit other gardens, nurseries, and research facilities. Field trips emphasize the many different career options in horticulture, giving BCA interns the opportunity to network with interns from other gardens and people within the professional community.

   Interns are encouraged to design and complete a season long project in their area of interest. Projects will be done under the advisement of a staff member. This project could possibly involve working with the local nursery industry. Examples of past projects are included with application.

7. **What is the present status of this project?**
   The 2026 internship is currently being organized. Applications roll in during the first two months

of the year then qualified applicants are selected for interviews. Additional funds would allow us to secure funding for 6-8 interns and pay them an appropriate wage. We plan on hiring one intern earlier in the season this year to help with Spring projects and keep one intern on later into the fall season.

8. **How will this project benefit the local nursery, landscape or retail horticulture industry?**
   The BCA Internship Program will expose and teach interns the importance of the local industry and ultimately train future horticulturists to work in the field. We expose our interns to many local nurseries and local gardens to show them all the open possibilities for their futures. We particularly aim to hire interns from local colleges like Farmingdale College as they are local and help bolster our horticultural community.

9. **How will you report the results of your project to this industry?**
   Interns are required to summarize their experience and independent projects through a paper or report. Below are examples of last year's projects:
   - Brenna McClellan: Redesign Wall Garden Section with new plant list
   - Matthew Richards: Collect DBH measurements and map data for Beech Leaf Disease
   - Nieko Chu: Update Cercis collection with GIS Mapping
   - Erik Zachwieja: Deer Management Plan for Horticultural Damage

10. **List other sources of funds, industry cooperators and the total anticipated cost of this project**
    $8,000 funds one intern for the season. We normally have 6 interns per season. The Natural Heritage Trust will be contributing. This year we are planning to extend the season for a couple of interns to cover seasonal projects. The total anticipated cost is $56,000.

11. **How would this grant facilitate your project?**
    This grant would contribute to the salary of an intern.

12. **Amount of funds requested - maximum of $5,000**
    $5,000

13. **Date needed**
    June 1st, 2026

Bayard Cutting Arboretum (BCA) Internship Photos – 2025

BCA Interns on an educational LINLA field trip

BCA Interns removing invasive species

BCA Interns ready to plant!

BCA Interns learning from local arborist.

Timothy Marten, Associate Professor
SUNY Cobleskill – Management, Communications & Design
106 Suffolk Cir, Cobleskill, New York 12043
Phone 518-255-5648 Martente@Cobleskill.edu

December 9, 2025

LINA Grant - Continuation of a Previous Field Study Project
PI: Mr. Timothy Marten, Associate Professor

Project Summary

The previous seven years of support from the Long Island Nursery and Landscape Association have provided SUNY Cobleskill students with hands-on access to the diverse landscape, nursery, greenhouse, and production sectors of Long Island's green industry. For the past five years, the New York State Flower Industries Research and Education Fund (NYSFI) has contributed to this support, leading to increased participation, expanded itineraries, and improved student outcomes.

This continuation request maintains the same proven approach: providing structured, multi-day field experiences for new and transfer students before the start of the fall semester. These experiences help students align their early-career goals with academic pathways, build relationships, and develop professional confidence at the start of their college journey.

Core Project Goals and Objectives

- **Career Exploration:** Provide structured opportunities for students to visit a wide range of Long Island operations spanning greenhouse production, design-build firms, arboriculture, retail operations, research institutions, and nursery production.
- **Student Success:** Support early academic and social integration, leading to stronger peer networks, improved academic readiness, and informed career direction**.**
    - Current higher education conditions present deep engagement challenges: declining attendance, inconsistent assignment completion, and anxiety about academic expectations are common trends nationally and locally. Despite these realities, students who participate in this field study demonstrate markedly stronger engagement, belonging, and professional motivation throughout their first semester. This reinforces that early professional exposure fosters buy-in, confidence, and a sense of purpose at a moment when students are otherwise highly vulnerable
- **Industry Engagement:** Build meaningful relationships between students and professionals to encourage entry into New York's green industry.
- **Equity of Opportunity:** Remove financial barriers and enable participation regardless of a student's personal economic circumstances.

Long-Term Impact and LINLA Partnership Value

LINLA's sustained investment has:

- Increased the number of student participants over time.
- Expanded the range of stops and professional contacts made during the trip.
- Created a culture of professional readiness and reflection among new students.
- Strengthened awareness of Long Island as a hub of opportunity for green industry internships and careers.

SUNY Cobleskill continues to rely on LINLA's leadership to ensure that early student exposure remains a distinctive and effective educational practice.

Benefit to the Local Nursery, Landscape, and Horticulture Industry Partners

The Long Island region directly benefits from this project:

- Students gain familiarity with Long Island employers, often returning for summer work/internships.
- Entry-level hiring challenges are reduced through early exposure and informed career decision-making.
- Students understand industry expectations and skill needs before committing to their majors.
- Professional pride and belonging are cultivated early, improving student retention and alignment.

Long Island Field Study Itinerary - 2025

Monday, August 18th | Hudson Valley & Westchester Co.

- Alders Wholesale Florist - **Campbell Hall**
- Dinner with Pennington Gray – Ecological Landscaper - **New Bedford**

Tuesday, August 19th | Mid Island

- Goldberg & Rodler: Landscape Design-Build - **Huntington**
- Atlantic Nursery: Mixed Wholesale Nursery - **Dix Hills**
- Kurt Weise Greenhouses: Commercial Greenhouse Grower - **Center Moriches**
- Henry Leuthardt Nurseries: Fruit Tree Nursery - **East Moriches**
- Bay Gardens: Retail & Landscape Design-Build - **East Moriches**

Wednesday, August 20th | Island Forks & Hamptons

- Glovers Perennials: Native and Perennial Plant Nursery - **Cutchogue**
- Pindar Winery: Vineyard & Wine Production - **Peconic**
- Summerhill Landscape: Landscape Design, Build & Maintenance - **Sag Harbor**
- The Laurel Group: Landscape Design, Build & Maintenance - **Water Mill**
- Power Equipment Plus: Equipment Dealer - **Southampton**
- Bartlett Tree Experts: Arboriculture & PHC - **Southampton**

Thursday, August 21st | Travel Day

- Jones Beach Environmental Center
- The Highline & Little Island NYC

Budget and Other Funding

LINLA Request Budget		
Meals	Student & Faculty	**$ 500.00**
Lodging	~ $245/ Night – 5-6 rooms - 1 Night ~ $245/ Night – 1-2 rooms - 1 Night	**$ 2000.00**
	Total Request	**$2,500.00**

Matching Support:

- NYSFI: $3,000 Lodging & Meals
- Campus Admin: $700 (transportation, tolls, fuel)

The requested funds will cover student lodging and meals during the four-day field study in August 2026, enabling all accepted first-year students in horticulture, plant science, and landscape majors to participate regardless of financial background. This past year, three students who attended were EOP (Educational Opportunities Program) students with financial aid packages that would indicate significant financial constraints.

Conclusion

This application represents a renewal of an enduring and successful collaboration between LINLA and SUNY Cobleskill. By continuing to support this initiative, LINLA helps secure a robust workforce pipeline, cultivate informed, motivated college students, and strengthen the identity and culture of the green industry on Long Island.

The Long Island Field Study remains one of the most impactful early-stage experiential learning initiatives within SUNY's applied plant science programs, made possible through LINLA's leadership and vision.

2026 INNOVATION GRANT APPLICATION
LANDCRAFT GARDEN FOUNDATION – FEBRUARY 19, 2026

1. **Title of Innovative Project or Activity**

Advanced Horticulture Techniques for Students & Professionals (Seven-Part Series)

2. **Your Name, Title, Address, Telephone and Email address**

Judy Christrup, Director of Development, Landcraft Garden Foundation (LGF), 1160 East Mill Road, Mattituck, NY 11952, 516-241-0854 (cell) 631-298-7216 (office), judy@landcraftgardenfoundation.org.

3. **Cooperator(s) Name, Title, Address, Telephone and E-mail address**

Dennis Schrader, President, Landcraft Environments, 1160 East Mill Road, Mattituck, NY 11952, 516-380-1516 (cell) 631-298-3510 (office), dennis@landcraftenviraonments.com.

4. **Brief summary of objective(s)**

This seven-part series advances LGF's workshop offerings into more specialized horticulture education topics and includes a component for developmentally disabled adults. We hope to inspire horticulture students and professionals to explore new niches of nursery & landscape professions.

The series includes:

a) **Workshop on careers in horticulture** for Mattituck High School students and community non-profits (e.g., Butterfly Effect Project and CAST). This workshop will be taught by Kerry Ann McLean (Operations Manager of Landcraft Garden Foundation) and Dennis Schrader (owner of Landcraft Environments) and **will include the new career specialty of drone work for environmental monitoring, land conservation, and mapping.**

b) **Tree grafting with Cornell Cooperative Extension.** Grafting allows heirloom, rare, or regionally adapted tree varieties to be conserved and shared. Participants learn how to perpetuate cultivars that may not come true from seed, **supporting biodiversity and cultural plant heritage**. This hands-on technique builds confidence and competence. Students gain foundational horticultural skills, professionals refine or expand their toolkits, and backyard gardeners acquire a method they can immediately apply at home.

c) **Plant propagation for developmentally disabled adults** in collaboration with Pal O Mine (a comprehensive therapeutic equine program using horses to facilitate growth, learning and healing for individuals with disabilities). Pal O Mine has installed gardens at their facilities to develop job training for developmentally disabled adults. Showing these adults **how to start plants for their revenue-generating gardens** is a fundamental skill they will need to continue their entrepreneurial endeavors.

d) **Invasive species identification and removal (bilingual)** in the 9-acre Landcraft meadow with Frank Piccininni (biologist & environmental attorney at Spadefoot Design and Construction) and Andruw Medrano (gardener at Landcraft Garden Foundation) who will translate and instruct in Spanish. Frank brings **a multidisciplinary perspective** to restoring functional habitat across human-impacted landscapes.

e) **Native planting (bilingual)** in the 9-acre Landcraft meadow with Frank Piccininni (biologist, environmental attorney at Spadefoot Design and Construction) and Andruw Medrano (gardener at Landcraft Garden Foundation) who will translate and instruct in Spanish. Successfully planting into wild areas with little scheduled maintenance is a challenge many professional landscapers are contending with, especially as more properties abut conservation lands. Using Landcraft's own meadow as a case study, Frank will address the **challenges posed by traditional methods of landscape planting** and present solutions using different plant sources, sizes, and protections. Plants intended for this site are: bottlebrush buckeye, hazelnut, witch hazel, winterberry, northern bayberry, boneset, joe-pye weed, broom sedge, Calamagrostis canadensis, Carex pensylvanica, northern sea oats and crinkled hair grass, which will minimize disturbed areas and restore the native meadow.

f) **iPhone landscape photography with Anthony Graziano (bilingual)**. Learning to frame light, texture, color, and form trains participants to see landscapes more carefully. This heightened awareness translates directly into better plant selection, design decisions, and garden care. Participants can use these skills to consistently **photograph seasonal change, plant maturity, and maintenance practices**. This is valuable for students tracking learning outcomes, professionals documenting projects, and all gardeners monitoring their landscapes over time.

g) **Dynamic Plants for Garden Challenges -- Indoor and Out -- with Dr. Jonathan Lehrer.** Dr. Lehrer is the Ornamental Horticulture Department Chair at Farmingdale State College. He will guide participants through characteristics of plants in both the Landcraft Garden and the Conservatory, sharing insights into their evolutionary strategies and ecological roles. He will highlight **how to integrate these plants into specific gardens and design projects**, providing practical ideas for transforming green spaces.

5. List previous projects that lead to the need for this one

We produced a six-part series in 2025 called, "Horticulture Techniques for Students & Professionals," and we would like to include new specialties and non-traditional audiences in 2026. We continue to teach and interact with students from Mattituck High School, Farmingdale State College, Cornell Cooperative Extension, Stony Brook University, Stony Brook Food Lab, Cobleskill University, Planting Fields Arboretum, NYBG School of Horticulture, and Wave Hill (interns), who share their thoughts about gaps in exposure to interesting landscaping and nursery professions. We want to continue offering instruction, skills, and information related to innovative professional niches.

6. Outline this project with a brief explanation of each step.

A) Create overall objectives & lesson plans for the series.
B) Confirm instructors.
C) Finalize budget.
D) Create calendar.
E) Add workshops to website.
F) Create outreach list. Reach out to educational institutions, businesses, professionals.
G) Advertise the workshops regionally, through Mailchimp and by invitation.
H) Hold the workshops in spring, summer, and fall 2026.

l) Follow up with participants.

7. What is the present status of this project?

We are midway through steps A – D. We intend to hold workshops from March to December 2026.

8. How will this project benefit the local nursery, landscape, or retail horticulture industry?

We will help horticulture students and professionals expand and improve their knowledge and skills about careers in horticulture overall and specifically: drone work; tree grafting; invasive species identification and removal; native planting (planning and implementation); iPhone photography as a professional tool; plant selection and plant propagation.

9. How will you report the results of your project to this industry?

We will report the results to the industry via emails, newsletters, social media, press releases, and word-of-mouth.

10. List other sources of funds, industry cooperators, and the total anticipated cost of this project.

Anticipated costs: $6,000
Other Sources of Funds:
LGF members and workshop fees $1,500
Landcraft Design Associates $1,000
Industry Cooperators:
Landcraft Environments (Dennis Schrader)
Spadefoot Design and Construction (Frank Piccininni)
Pinewood Perennials (Scott Clarke)
Glover Perennials (Jim Glover)
Educational Cooperators:
Cornell Cooperative Extension
Farmingdale State College
Mattituck High School

11. How would this grant facilitate your project?

This grant will help pay costs including workshop implementation, horticultural assistant costs, Spanish translator, supplies, tools, manuals, handbooks, and publicity.

12. Amount of funds requested.

$3,500.00 (No funds will be utilized for administrative overhead.)

13. Date funds needed.

April 30, 2026

Propagation workshop at Landcraft Garden Foundation (2025)

Tree pruning workshop at Landcraft Garden Foundation (2025)

2026 INNOVATIVE GRANTS APPLICATION OUTLINE

Deadline: February 20, 2026

1. Nutrient Film Technique (NFT) & Bato Bucket (Dutch Bucket) Hydroponic Systems for Greenhouse Production and Research

2. Nick Menchyk, PhD, Associate Professor
Farmingdale State College
Department of Urban Horticulture and Design
2350 Broadhollow Road, Farmingdale, NY 11735
Mobile: 724-991-2041
Email: nicholas.menchyk@farmingdale.edu

Co-PI(s): Andrew Barton, MS, 10-Month Lecturer & Program Coordinator for Cannabis Production and Management, Department of Urban Horticulture and Design, FSC

Sean Curry, Instructional Support Associate, Department of Urban Horticulture and Design, FSC

Collaborator: N/A

3. Cooperators name, title, address, telephone, email:

Andrew Barton
10-Month Lecturer & Program Coordinator for Cannabis Production
Department of Urban Horticulture and Design
2350 Broadhollow Road, Farmingdale, NY 11735
Mobile: 240-478-8156
Email: BartonA@farmingdale.edu

Sean Curry
Instructional Support Associate
Department of Urban Horticulture and Design
2350 Broadhollow Road, Farmingdale, NY 11735
Work: 934-420-2711
Email: CurrySD@farmingdale.edu

4. Brief summary of objectives

- **NFT Hydroponics**
- Introduce horticulture students to practical technology and growing methods used by local growers and start-up companies as opportunities for future employment.
- Experiment with various inputs (nutrients, pH level, plant material, light level/duration) to optimize growth of small-scale agricultural crops using the NFT system in the greenhouse.
- Experiment with the production of leafy green/ herbs in an NFT hydroponic system along with the production/ propagation of small fruiting crops such as strawberries.

- **Bato Bucket (Dutch Bucket) Hydroponics**
- Introduce the Bato Bucket (Dutch Bucket) Hydroponic System to demonstrate hydroponic crop growth and plant propagation to horticulture students at Farmingdale State College.
- Experiment with the production of larger food crops that are not suitable for the NFT systems, such as vining plants like tomatoes, grapes, cucumbers, green beans, peas, etc., along with non-vine plants such as peppers, eggplants, etc.
- Showcase and compare the experimental efficacy of Bato Bucket (Dutch Bucket) Hydroponic plant growth to soil grown counter parts.

5. List previous projects that lead to the need for this one

In the laboratories of several FSC horticulture classes (HOR 110, 111, 250) students have traditionally conducted soil-based experiments using greenhouse grown plant material (ornamental, edible, etc.) to explore various management inputs for optimized growth including: light trials (daylength and light quality experiments) nutrient deficiency trials, and plant growth regulator (PGR) experiments. Recently, faculty and staff at Farmingdale State College have begun to introduce deep water culture (DWC) hydroponic systems and aeroponic hydroponic systems into horticulture labs to give our students the opportunity to learn about hydroponic production/ propagation technologies.

The NFT & Bato Bucket hydroponic systems will allow for greater exploration of these hydroponic technologies and techniques to grow horticultural crops in a controlled environment. Technologies like the NFT system are used in many aspects of contemporary agricultural leafy green & herb production while Bato Bucket systems are utilized by both large-scale industrial food producers for crops such as tomatoes as well as by home hobbyist food gardeners as well.

Having this innovative equipment in the greenhouse for Farmingdale students to experiment with, and gain experience on, will be beneficial to both existing industrial food and ornamental crop producers on Long Island, as well as the emerging industry sector of small to medium scale shipping container farming. This will allow our students the ability to experience an increased level of workforce development while still in college through hands-on lab experience growing

multiple crops in these hydroponic systems while also conducting experiments and maintaining these hydroponic systems at the same time.

Additionally, our students will gain insights into nutrient and pH management, production scheduling, reservoir and irrigation tube management, and ideal growth environment targets for specific crops in various hydroponic systems. On top of these insights, our students will also learn general hydroponic trends on what is feasible in hydroponics culture, along with the knowledge of what type of hydroponic systems will be best for specific plants and or use case scenarios they may come across in the agricultural industry on Long Island after they graduate; As hydroponics is not a "one size fits all" piece of growing technology.

6. Outline this project with a brief explanation of each step

- Purchase nutrient film technique (NFT) hydroponic systems & Bato Bucket hydroponic systems to be installed in the FSC greenhouses.
- Assemble and test the NFT systems & Bato Bucket systems in-class with Farmingdale State College horticulture students during the Fall 2026 semester.
- Conduct greenhouse experiments measuring the viability of NFT hydroponic nursery production/ propagation of herbaceous bedding materials in the NFT hydroponic system against soil grown plants.
- Conduct greenhouse experiments with leafy green/ herb production in an NFT hydroponic system along with the production/ propagation of small fruiting crops such as strawberries and compare results against soil grown plants proving or disproving increase efficacy of hydroponic systems with certain crops.
- Conduct optimal nutrient water flow rate NFT experiments by changing the pitch/ slope of NFT systems and or submersible pump size.
- Showcase and compare experimental NFT hydroponic plant growth to soil grown counter parts, proving or disproving the increased efficacy of hydroponic systems with certain crops.
- Conduct greenhouse experiments on the production of larger vining food crops and small bush style food crops in a Bato Bucket hydroponic systems with trellising.
- Conduct greenhouse experiments measuring Bato Bucket hydroponic plant growth against soil grown counter parts, proving or disproving the increased efficacy of Bato Bucket hydroponic systems with certain crops.
- Conduct experiments with different rates or irrigation in Bato Bucket hydroponics to optimize the growth of certain crops in a Bato Bucket system.

7. What is the present status of this project

This project is in its planning and funding stages.

8. How will this project benefit the local nursery, landscape or retail horticulture industry?

This project will prepare the next generation of horticulture professionals on Long Island by offering them the opportunity to develop their work skills with a newer growing technology while still in college. This educational experience will reinforce Farmingdale horticulture students' knowledge of hydroponic growing systems, nursery and greenhouse production, and an overall better understanding of plant science and management. A goal of this project is to enhance and strengthen the applicable hands-on skills and experience that our students receive. This is vital as our students will need to have these hands-on skills after graduating from our horticulture program to help strengthen their ability to compete for competitive jobs in the landscaping/ nursey production industry on Long Island.

9. How will you report the results of your project to this industry

Short report and/presentation of student experiments will be presented to LINLA.

10. List other sources of funds, industry cooperators and the total anticipated cost of this project

Currently, there are no other sources of funds for this project.

11. How would this grant facilitate your project

The funds from LINLA will be utilized primarily to pay for materials like the NFT & Bato Bucket hydroponic systems themselves. External grant funding of this type allows the Farmingdale Urban Horticulture & Design department to acquire equipment that falls outside the scope of annual NYS allocations for our department, without pulling funding away from our other courses/ labs.

I, Nick Menchyk, will be teaching various horticulture courses along with Andrew Barton, and we plan on instituting labs based on these hydroponic systems into our HOR 110 lab (HORT 1), and HOR 111 lab (Hort 2) so that all the students in our program get hands on experience with these hydroponic systems in their first year of classes. These systems may also be integrated and used in our other courses such as HOR 250 (Plant Propagation).

12. Amount of funds requested

Total amount requested: $5,000

We are requesting 2 of each system type so that we can run experiments between the two by changing variables such as crop type, EC & pH levels, types of fertilizers (organics vs synthetics, and or different fertilizer brands), etc.

Complete Cart/ Item list:

1. CropKing © NFT 8-4 System
   https://cropking.com/products/nft-8-4?variant=45642701439143
   Qty: 2
   Single Unit Price (Shipping & Tax included) : $1,100
   Total: $2,200

2. CropKing © NFT 8-4 System - Light Support Rack
   https://cropking.com/products/light-support-rack-nft-8-4?variant=45563568292007
   Qty: 2
   Single Unit Price (Shipping & Tax included) : $195
   Total: $390

3. CropKing © 10 Bato Bucket System
   https://cropking.com/products/10-bato-bucket-system?variant=46081569292455
   Qty: 2
   Single Unit Price (Shipping & Tax included) : $1,050
   Total: $2,100

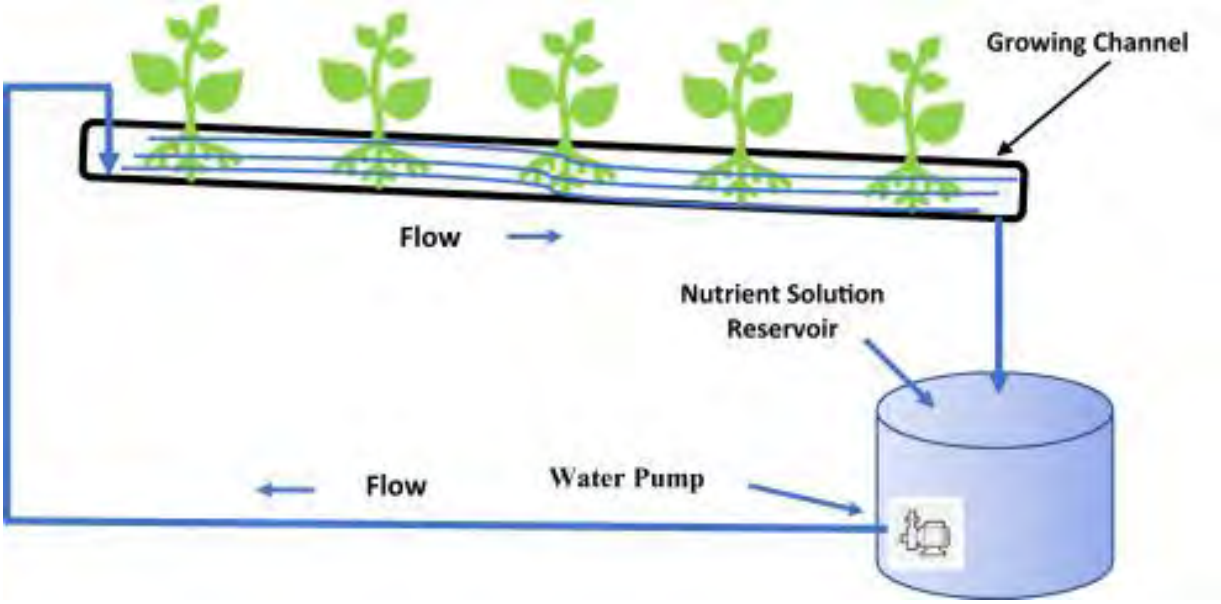
4. CropKing © 10 Bato Bucket System
   https://cropking.com/products/10-bato-bucket-system-light-support-rack?variant=46278186959015
   Qty: 2
   Single Unit Price (Shipping & Tax included) : $320
   Total: $640

Full Cart Price (Shipping & Tax included): $5,330

13. Date funds needed
Summer 2026

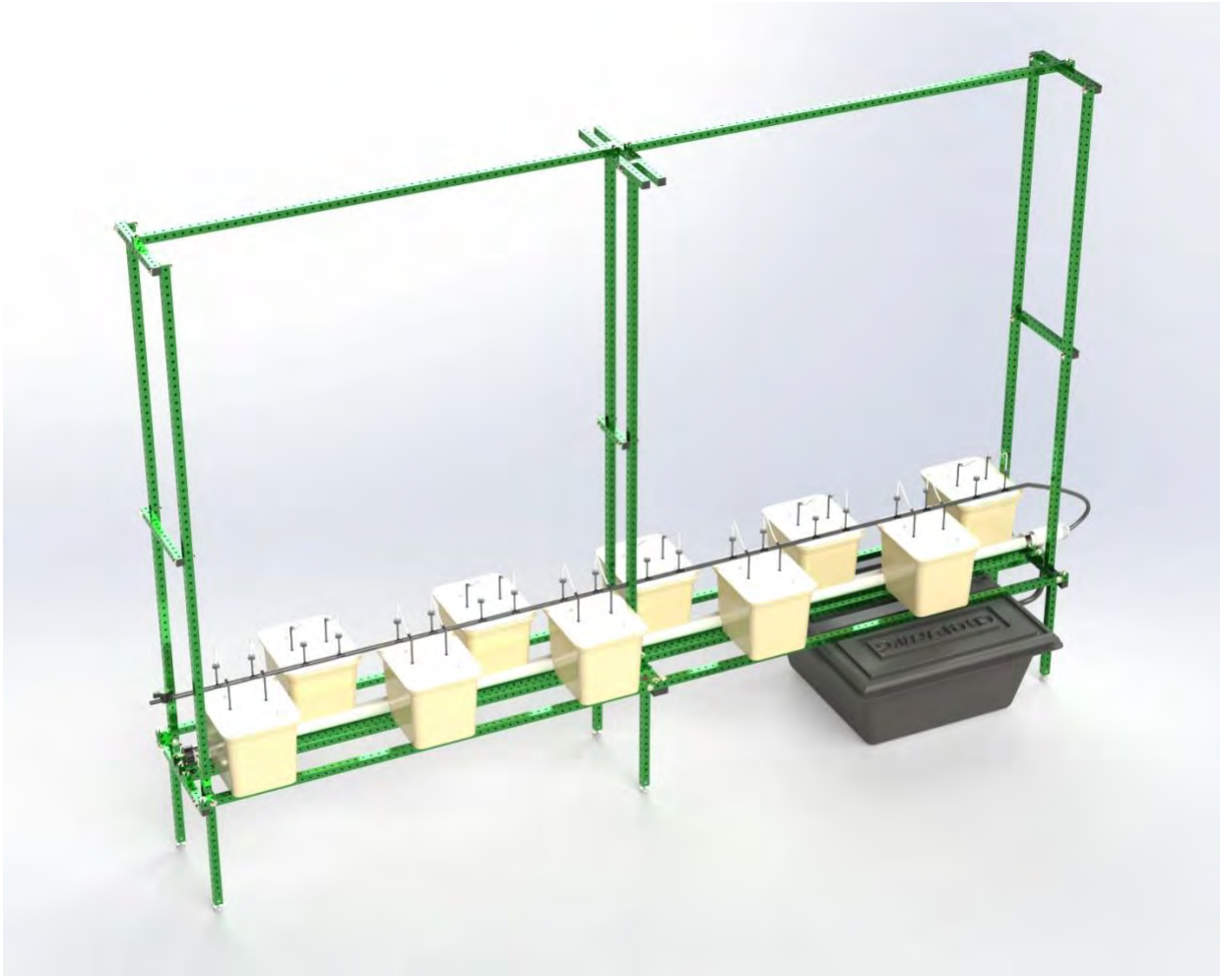
System Pictures & Cart Below

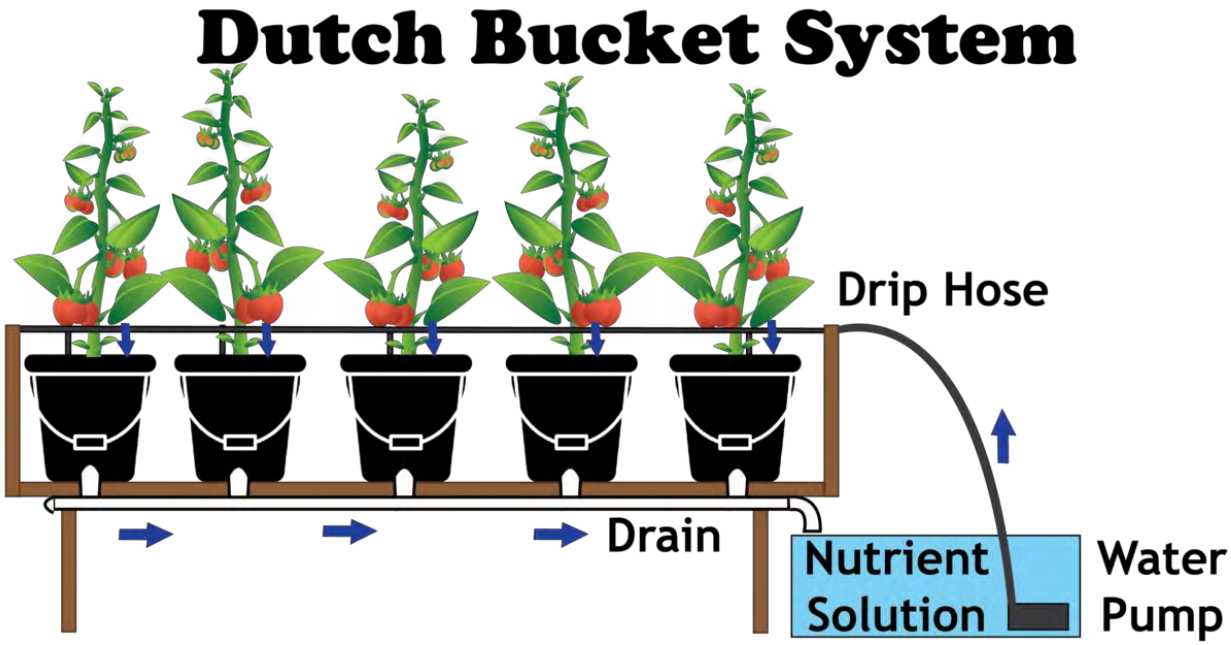
CropKing © NFT 8-4 System




6

CropKing © 10 Bato Bucket System





CROPKING

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	NFT 8-4 System $1,100.00	2	Remove	$2,200.00
	NFT 8-4 System - Light Support Rack $195.00	2	Remove	$390.00
	10 Bato Bucket System $1,050.00	2	Remove	$2,100.00
	10 Bato Bucket System - Light Support Rack $320.00	2	Remove	$640.00

Subtotal **$5,330.00 USD**

Taxes included and shipping calculated at checkout.

Add a note to your order

Order note

Check out

PayPal | G Pay

We accept

Estimate shipping rates

Country/region: United States | Province: New York | Postal/ZIP code: 11735 | Calculate

There is one shipping rate for your address:
- UPS® Ground: USD 0.00

Order summary $5,330.00

 2	NFT 8-4 System	$2,200.00
 2	NFT 8-4 System - Light Support Rack	$390.00
 2	10 Bato Bucket System	$2,100.00
 2	10 Bato Bucket System - Light Support Rack	$640.00

Discount code | Apply

Subtotal · 8 items	$5,330.00
Shipping	
Total	USD **$5,330.00**

Express checkout

PayPal | G Pay | venmo

Black Root Rot Control on Lavender and Phlox

Margery Daughtrey, Senior Extension Associate
Cornell Long Island Horticultural Research & Extension Center
3059 Sound Avenue
Riverhead, NY 11901
631-727-3595. mld9@cornell.edu

Cooperator:

Mina Vescera, Nursery and Landscape Specialist
Cornell Cooperative Extension of Suffolk County
423 Griffing Avenue
Riverhead, NY 11901
631-727-7850. mv365@cornell.edu

4. Objectives:
To compare the health of two lime-loving crops at different pH levels, with and without inoculation with *Berkeleyomyces basicola*, the fungus that causes black root rot. This will test whether the disease can be managed through pH adjustment to a lower pH (below pH 6.2) without sacrificing the quality of the crop. This IPM technique is effective with plants that can be grown at pH 5.5, but with the black root rot hosts that are often grown at higher pH, it would be helpful to see how plant quality in both inoculated and non-inoculated plants is affected by lowering pH.

5. Previous projects that led to this one:
- Pansy trial (with Nora Catlin, reported in the 2011 LIHREC Annual Report) examining growing media effects on a greenhouse pot plant crop inoculated with *Berkeleyomyces basicola*.
- Nine black root rot management studies with fungicides.
- 20 years of trials on calibrachoas sponsored by a plant breeding company, establishing the relative susceptibility of new lines not yet on the market.

6. Outline:
- Cultivars of phlox and lavender will be screened for susceptibility to black root rot in greenhouse inoculation trials.
- Liners of susceptible lavender (recommended pH 6.5-7.5) will be obtained from national suppliers or local businesses and mountain phlox (recommended pH 6.1-7.3) will be grown from seed and transplanted from plugs.
- A pH range will be established in a standard nursery mix (Half Hollow mix) by adding 0, 2.5, 5.0, 7.5, 10 or 15 lb lime to 84 1-gal containers. Fourteen plants of each species will be grown at each pH, allowing 7 single plant replications in a split plot in which half of the plants will be inoculated with 10 ml of a blended slurry o*f Berkeleyomyce basicola*. Plants will be overhead irrigated to maintain a moist growing medium to encourage black root rot.
- Sixteen plants of each species will be potted and grown with the rest to use for periodic pH checks.
- Data will be collected on plant height and quality rating weekly for two months.
- Data will be analyzed using JMP software and the most effective, non-injurious pH for suppression of black root rot for these plants will be determined and reported to the nursery industry.

7. Present Status:
Awaiting funding

8. Benefits:
Results of this study will help growers of lime-loving plants to know how to set their growing pH to protect against black root rot but maintain plant quality.

9. Reporting:
Results will be reported at the LIHREC Plant Science Day, as well as at the LI Agricultural Forum and the LI Horticulture Conference and may be published in the trade press (*American Nurseryman)* or the journal *Plant Health Progress*.

10. Other Sources of Funding:
No other grants cover this study. A collaborator to supply lavender liners will be sought among local industry and otherwise these will need to be purchased @ $500-$600. Mix will be donated by a local nursery. Total cost of project would be $3500, allowing for seed and container purchase, growing space fee, and technical assistance for potting, maintenance, data collection and analysis.

11. Grant Benefit:
It would make this study possible.

12. Funds requested: $3,500.

13. Funds needed: June 2026.

2026 Long Island Nursery & Landscape Innovation Grant

1. Title of Innovative Project or Activity

Demonstration trial of downy mildew resistant garden impatiens.

2. Your Name, Title, Address, Telephone, and Email address

Nora Catlin, Director
Long Island Horticultural Research and Extension Center
3059 Sound Ave., Riverhead, NY 11901
Phone: 631-727-3595; Email: njc23@cornell.edu

3. Cooperator(s) Name, Title, Address, Telephone, and E-mail address

Kyle Smith, Greenhouse/Floriculture Program Technician
Long Island Horticultural Research and Extension Center
3059 Sound Ave., Riverhead, NY 11901
Phone: 631-727-3595; Email: ks2224@cornell.edu

4. Brief summary of objective(s)

The objective of this proposal is to hold a demonstration trial of downy mildew resistant garden impatiens, allowing for side-by-side comparisons of plant performance and quality. Resistant cultivars of as many as possible of all colors and types available in the Beacon and Imara series will be trialed. Additionally, for comparison a standard, susceptible cultivar of garden impatiens, and a limited number of commonly grown cultivars of New Guinea impatiens, SunPatiens, and Bounce impatiens will also be included. If possible, a selection of the resistant plants bred by Dr. Mark Bridgen will also be included.

5. List previous projects that lead to the need for this one (if any)

There have been local trials conducted by Margery Daughtrey and Mark Bridgen which have evaluated the disease resistance of new and in-development cultivars of garden impatiens, but there has not been a local a trial to look specifically at plant performance characteristics including flower quality and quantity, foliage quality, and plant habit. While there are display trials in other states and regions, this trial would create a demonstration trial here on Long Island for growers, landscapers, and gardeners to see the performance in person as a side-by-side comparison.

6. Outline this project with a brief explanation of each step

The general procedures of the trial would be as follows:

1. Plant material will be obtained, grown and maintained in the greenhouse until ready to be transplanted outside;
2. Plants will be transplanted into outdoor containers at the Long Island Horticultural Research and Extension Center and maintained;
3. Plant performance observations and evaluations will be recorded throughout the season, and photos taken;

4. The trial plants will not be inoculated with the downy mildew pathogen, and thus this trial will not be a disease susceptibility and resistance trial. However, if plants are to become naturally infected, observations on disease incidence and development will be recorded.
5. The demonstration trial will be available for stakeholders to visit and will be highlighted at events at LIHREC such as the Garden Open House and Plant Science Day. Results will also be shared in local newsletters and at local meetings and conferences as opportunity arises.

7. What is the present status of this project?

This is a new project.

8. How will this project benefit the local nursery, landscape or retail horticulture industry?

Prior to the devastating outbreaks of impatiens downy mildew, first seen in 2011–2012, garden impatiens, *Impatiens walleriana*, were among the most economically significant bedding plants for Long Island horticultural businesses, with a wholesale market value exceeding $10 million in New York State. Following widespread crop losses and landscape failures, production and sales declined by more than 60%, representing a substantial impact to growers, retailers, and landscapers.

Although downy mildew resistant garden impatiens cultivars are now available, widespread adoption has been limited due to uncertainty regarding their performance, growth habit, and quality under local conditions. This project will address these barriers by conducting side-by-side trials under Long Island growing conditions. This trial will serve to educate growers, landscapers, and homeowners on the resistant cultivars and allow for first-hand observation of their performance in our climate. Additionally, information about the characteristics of these plant cultivars, including size, habit, color, flower quality and quantity, and general plant quality and performance will be documented and reported.

Findings will be shared through extension reports, on-site events, and outreach to nursery, landscape, and retail professionals. By increasing knowledge and confidence in resistant cultivars and demonstrating their reliability and aesthetic value, this project aims to accelerate industry adoption and help restore consumer demand for impatiens.

9. How will you report the results of your project to this industry?

Plants will be on display at the Long Island Horticultural Research and Extension Center and will be featured at the Garden Open House, the annual Plant Science Day, and any other tours or groups that may visit the Center. Additionally, the plants will be available to view in person by anyone in the industry during regular business hours throughout the season. Photos will be taken and notes on performance will be summarized into a report and shared through newsletters such as Agricultural News, and to any who request the information. If opportunity presents, the results will be shared through presentations at local meetings and conferences.

10. List other sources of funds, industry cooperators and the total anticipated cost of this project

The funds requested will predominantly cover supplies such as growing containers, growing media, plant material, and landscape fabric (needed to repair areas of the demonstration field). Other

Cornell funds will be used as a match and will cover the labor costs of planting and maintaining the trial.

11. How would this grant facilitate your project?

This grant would allow for the purchase of necessary supplies and materials to conduct the trial.

12. Amount of funds requested – maximum of $5,000.

$3000

13. Date funds needed

Ideally by April 1, 2026.

2026 LINLA Innovation Grant Application

1. Title of Innovative Project or Activity

Selecting the Best Willow Species to Help Deliver Season Long Aphid Suppression and Pollination Insurance in Northeastern Landscapes

A comparative 2026 field trial of aphid development and beneficial insect recruitment on three nursery-relevant willows at Blossom Meadow Farm (Southold, NY).

2. Applicant Information

Laura Klahre
Owner / Research Lead, Blossom Meadow Farm, Southold, NY
425 South Harbor Road, Southold NY 11971
(631) 905-9780
laura@blossommeadow.com

3. Cooperators

Primary study site: Blossom Meadow Farm (Southold, NY).
This site provides uniform growing conditions, irrigation access, and demonstrated populations of flower flies, lady beetles, and lacewings, making it an ideal location for a willow aphid trial.

Industry cooperator: A local nursery to assist with sourcing nursery stock and guidance (TBD).

4. Objectives

The goal of this project is to identify which pussy willow best functions as early-season biological infrastructure in Long Island landscapes.

Specific objectives are to:

1. Compare three willow types (*Salix discolor*, *S. chaenomeloides* 'Mt. Aso', *S. caprea*) for timing and intensity of aphid colonization.
2. Compare willow types for recruitment of beneficial insects, including flower fly larvae, lady beetle larvae, and lacewing larvae.
3. Document ant-tending activity associated with aphid colonies and its relationship to predator presence.
4. Identify aphid species, flower fly larvae, lady beetle larvae, and lacewing larvae present on each willow to species level using photographic records submitted to iNaturalist.
5. Rank willow types for their effectiveness in initiating early-season beneficial insect populations.
6. Test the hypothesis that willow taxa differ in timing and intensity of aphid colonization. It is hypothesized that the native *Salix discolor* supports the earliest aphid onset. The relative performance of all three species for aphid persistence and beneficial insect recruitment is an open

question, as we are unaware of prior data to predict which non-native pussy willow will prove most effective under northeastern field conditions.

5a. Background and Need

Willows (*Salix* spp.) are widely planted in Long Island landscapes for ornamental interest, screening, and erosion control. Emerging ecological understanding suggests an additional functional role: willows can recruit and sustain populations of beneficial insects that provide aphid suppression throughout a landscape and pollination insurance in agricultural settings and the home garden.

As Appendix A more fully describes, willow aphids (*Chaitophorus* spp.) are largely host-specific to willow and decline naturally as leaves mature and predator pressure increases. Because these aphids function as foundational prey rather than agricultural pests, *Salix* acts as a predictable early-season aphid resource that attracts, anchors, and increases populations of aphid-eating flower flies (Syrphidae), lady beetles (Coccinellidae), and lacewings (Chrysopidae). Willow plantings can "jump-start" beneficial insect communities without increasing crop pest pressure.

Despite this ecological role, the nursery and landscape industry lacks guidance on which willows most effectively initiate early-season biological infrastructure in northeastern landscapes. It can be assumed that native species and ornamental pussy willows differ in growth phenology, shoot succulence, and aphid susceptibility. Yet, they will likely be treated as ecologically equivalent when the willow/milkweed infrastructure concept is widely adopted – because there is currently no data to prove otherwise. Identifying which willow most reliably recruits and increases early beneficial insects would support increased retail willow sales and provide practical plant-selection guidance for resilient, lower-input landscapes.

Observations at Blossom Meadow Farm confirm the presence of multiple adult aphid-eating flower fly, lady beetle, and lacewing species, active larval feeding on aphid colonies, and flower flies pollinating berry crops. Common milkweed (Asclepias syriaca) is currently planted at the farm. Willow is currently not planted at the farm.

5b. Significance and Innovation

This project introduces the concept of early-season biological infrastructure to the Long Island nursery and landscape industry. Instead of treating all willows as ecologically equivalent, the study will generate applied, species-level evidence on which willow best recruits early beneficial insects.

Innovation includes:

• **Functional planting:** Addressing the larval food bottleneck by using willows as intentional early-season aphid banks — providing the prey resource that beneficial insect larvae require before pest pressure develops, rather than viewing aphids solely as pests
• **Plant-level comparison:** Directly comparing a native pussy willow, a Japanese pussy willow cultivar, and a European pussy willow for ecological performance, providing growers with actionable plant-selection guidance

• **Low-input pest management:** Demonstrating how plant choice can recruit natural enemies early in the season
• **Pollination insurance:** Demonstrating how plant choice can support pollinator diversity in managed landscapes

6. Methods

6.1 Experimental Design

The study will be conducted at Blossom Meadow Farm (Southold, NY), a 2-acre organically managed berry farm with established naturally-occurring populations of flower flies, lady beetles, lacewings, and other beneficial insects that eat aphids.

Three nursery-relevant willow types representing common landscape choices, selected in part because all three produce functional catkins and thus provide comparable adult floral resources (pollen and nectar) to beneficial insects:

• *Salix discolor* (pussy willow; native benchmark)
• *Salix chaenomeloides* 'Mt. Aso' (Japanese pussy willow; ornamental cultivar)
• *Salix caprea* (goat willow; European pussy willow)

Uniform nursery stock of similar age and size will be grown in 10–15-gallon containers with standardized media and irrigation to minimize variation in plant vigor.

A container common-garden trial will be established in one uniform location:

• 6 randomized blocks
• 3 willow types per block
• 18 plants total

6.2 Sampling Schedule

Monitoring will occur every seven days from mid-April through early July (approximately 10–12 sampling events), encompassing the early-season period when willow aphid systems typically establish and beneficial insects initiate reproduction.

6.3 Monitoring Protocol

Each sampling visit will record three assessments per plant:

1. Aphid assessment

On five standardized shoots per plant, observers will record aphid presence (Y/N), assign a density score on a 0–4 scale (0 = none, 1 = 1–10, 2 = 11–50, 3 = 51–200, 4 = >200), and note distribution (tips, leaf undersides, stems). A photo of the dominant colony will be taken for each plant. iNaturalist will be used to identify the species of aphid.

A standardized shoot is a current-season terminal shoot 10–20 cm in length located in the upper outer canopy of the plant, bearing actively expanding leaves and free of physical damage. As five such shoots will be selected per plant, they will be evenly spaced around the canopy and marked at first sampling to ensure repeated observation.

2. Beneficial insect assessment
On the same shoots, observers will record whether eggs are present (Y/N) and larvae are present (Y/N). If feasible, they will be counted. Larvae will be identified to species using iNaturalist.

3. Ant activity
Observers will assign an ant-tending score (0 = none, 1 = occasional, 2 = frequent, 3 = heavy guarding) based on ants attending aphid colonies.

6.4 Environmental Records and Phenology
Each sampling date will include temperature, precipitation, and plant phenology (budbreak date per plant, catkin bloom, % leaf expansion/maturation). The budbreak date and percent leaf expansion will relate aphid onset to host phenology.

Adult beneficial insects observed near colonies will be noted, and overall plant condition also recorded.

6.5 Supplemental Landscape Observations
To relate willow-initiated recruitment to broader landscape function, the project will also include casual monitoring of:

- strawberry flowers for adult flower fly visitation
- beach plum (*Prunus maritima*)
- 'Dolgo' crabapple
- other crops at Blossom Meadow Farm

Aphid presence and predatory larvae on these plants will be photographed and identified to species via iNaturalist. These observations will provide contextual evidence of beneficial insect movement into crop plants.

6.6 Data Analysis
Data will be summarized by species and date. Metrics include:

- Aphid onset and peak timing
- Aphid density and persistence
- Frequency of beneficial insect eggs/larvae
- Ant–predator associations

The primary deliverable will be a ranking of willow types by ecological performance as early-season biological infrastructure.

7. Present Status
Willow species have been selected and sourcing options identified. Blossom Meadow Farm's beneficial insect populations are documented, and the trial can be installed in March 2026 pending funding. Monitoring protocols and data sheets are prepared.

8. Industry Benefit

The recently developed biological infrastructure framework (see Appendix) introduces a new functional value category for willow and milkweed: species that deliberately recruit and increase populations of beneficial insects providing aphid suppression and pollination support. This project represents the first applied evaluation of pussy willow taxa within this emerging concept. By identifying which nursery-available willow species most reliably initiates early beneficial insect recruitment, the study will provide growers and retailers with plant-specific, performance-based guidance that can be communicated directly to customers.

Adoption of biological infrastructure planting has strong potential to increase *Salix* use in northeastern landscapes by positioning willow not only as an ornamental or erosion-control plant, but as a functional component of resilient planting design that contributes to aphid suppression and pollination insurance with minimal additional input. Even modest increases in willow planting across residential, commercial, and agricultural landscapes would introduce greater biological complexity and beneficial insect support across large areas of managed land in the Northeast.

By translating ecological function into practical plant-selection guidance, this project helps nurseries market willows for measurable landscape performance as well as aesthetics, ***supporting both increased plant sales and lower-input landscape management.***

9. Outreach and Reporting

The project will produce a concise LINLA report with graphs, tables, and recommendations. A one-page industry handout and suggested plant-tag language will be developed. Results will be shared through regional presentations and a potential LINLA newsletter publication.

10. Other Sources of Funds

None. This is the total anticipated cost of the project as all other expenses will be provided in kind by Blossom Meadow Farm.

11. How the Grant Facilitates the Project

If the funds are not granted, then the project will not take place.

12. Budget and Funding Request

Funds are requested for 18 willow plants, containers and media, weed fabric, irrigation supplies, labels, field supplies, and a seasonal assistant.

Total requested: $5,000.

13. Timeline

Plants purchased and potted: March 2026
Monitoring: mid-April to early July 2026
Analysis and report: October 2026

Laura Klahre/Blossom Meadow Farm 2/19/2026

Appendix A
Willow and Milkweed as Sequential Biological Infrastructure for Beneficial Insects: A Functional System for Aphid Suppression and Pollination Insurance in Northeastern Managed Landscapes

Executive Summary

Willow (*Salix* spp.) has largely been promoted in public outreach and agricultural guidance as an ornamental or riparian erosion-control plant, while milkweed (*Asclepias* spp.) is best known as a monarch butterfly host. As pollinator diversity declines and ecosystem services become less reliable, willow and milkweed should additionally be championed as biological infrastructure. In this role, they recruit and increase populations of flower flies, lady beetles and other beneficial insects that provide aphid suppression throughout a landscape. The flower flies additionally provide pollination insurance in agricultural settings and the home garden. Used together, willow and milkweed function as a continuous, season-long nursery system for *good bugs*.

Reframing willow and milkweed as functional biological infrastructure advances a broader shift toward resilient, performance-driven landscapes while making ecological function practical and market-ready for growers, gardeners, and property managers. For the nursery and landscape industry, this approach establishes a new value category for *Salix* and *Asclepias*: plants selected not only for aesthetics or habitat value, but for their ability to deliver season-long outcomes in pest suppression and pollination support. This positions nursery and landscape professionals at the forefront of next-generation planting design.

The Biological Infrastructure Concept

Conventional guidance encourages “habitat” for beneficial insects, often without specifying mechanisms, timing, or population dynamics. The missing element in most habitat guidance is the larval food bottleneck. When prey is scarce early in the season, predator populations cannot fully establish, and by the time pest aphids appear on crops, the beneficial insect community is too sparse to respond. Existing guidance rarely addresses this bottleneck directly.

In this framework:

- Willow functions as early-season infrastructure and is most critical for early population establishment.
- Milkweed functions as mid- to late-season infrastructure that sustains and amplifies those populations.
- Aphids associated with these plants function as foundational prey, not pests.

The result is a preventative system in which predators and pollinators are already abundant when crops and landscapes need them.

This framework builds on a concept that is well established in greenhouse biological control: the banker plant system. In this system, a noncrop plant that hosts a harmless host-specific aphid maintains populations of beneficial insects before pest pressure develops. Banker plant systems have been studied and used in commercial greenhouses for decades. What is new herein is the translation of this principle to the landscape scale using commercially available nursery plants that are managed under ordinary conditions. The goal is to achieve the same preventative effect across gardens, farms, and managed properties. The sequential willow to milkweed design makes the timing logic explicit in a way that existing habitat planting guidance does not.

Willow as Early- to Mid-Season Biological Infrastructure

Why Willow Works

Willow functions as a predictable early-season aphid bank. It predominantly hosts willow aphids (*Chaitophorus* spp.)*, which establish some of the earliest aphid colonies of the growing season. These aphids:

- appear very early in spring, often before crops emerge
- form moderate, accessible colonies well suited to feeding flower fly larvae, lady beetle larvae and lacewing larvae
- are host-specific to willow and do not move into agricultural crops
- decline naturally as leaves toughen and predator pressure increases.

At the same time, willow catkins provide abundant early pollen and nectar, supporting adult flower flies when few other floral resources are available.

This is the banker plant principle operating at landscape scale: a contained, harmless aphid population functioning as a managed prey resource that initiates beneficial insect reproduction before crops need protection. Early larval development on willow aphids increases beneficial insect populations before crops bloom. These early generations disperse into nearby fields and gardens, where subsequent generations suppress aphids as pest populations begin to build and flower fly adults also contribute to pollination. From a management perspective, willow aphids function as a temporary, low-risk aphid bank that jump-starts beneficial insect populations without increasing crop pest pressure, setting the foundation for later, milkweed-supported generations.

* Willow *also hosts Tuberolachnus salignus and Pterocomma spp., neither of which are considered agricultural crop or nursery pests in the northeastern United States. Willow is also a primary host of Cavariella spp*., some species of which may colonize Apiaceae crops (e.g., carrot, dill) later in the season. A*vailable evidence indicates that willow does not increase aphid pressure in Apiaceae crops and may instead support early-season predator recruitment*.

Milkweed as Mid- to Late-Season Biological Infrastructure

Why Milkweed Works

Milkweed (*Asclepias* spp.) reliably hosts dense colonies of oleander aphid (*Aphis nerii*)*. These aphids:

- are host-specific to milkweed and its relatives (milkweed, dogbane, oleander)
- do not move into agricultural crops**
- form dense, persistent colonies ideal for feeding flower fly larvae, lady beetle larvae and lacewing larvae

As early-season aphid systems decline, milkweed aphid colonies expand, allowing beneficial insect populations to persist and grow rather than collapse. Larvae developing on milkweed disperse into nearby crops and landscapes, where they suppress pest aphids and flower fly adults provide sustained pollination through mid-summer to fall.

* Milkweed also hosts *Aphis asclepiadis* (Milkweed aphid) and *Myzocallis asclepiadis* (Milkweed tree aphid) neither of which are agricultural crop or nursery pests in the northeast.
** *Aphis nerii* is considered a cosmetic pest in nurseries growing oleander and vinca vine, where infestations primarily affect plant appearance rather than plant health or yield.

Why Flower Flies Matter

A subset of flower flies (Diptera: Syrphidae) provide two ecosystem services that are typically treated separately in crop and landscape management.

Aphid predation
As generalist feeders, syrphine flower fly larvae can consume large numbers of aphids throughout a landscape. When aphids are present, adult flower flies lay eggs directly beside colonies, creating a self-renewing nursery of beneficial insects. Laboratory and field studies show that an individual flower fly larva can consume tens to over a hundred aphids per day (≈18–168 aphids per larva per day, depending on species and instar) (Hopper et al. 2011).

Pollination

Beyond their role in pest suppression, flower flies are increasingly recognized as important contributors to crop pollination. Unlike many bees, flower flies remain active under cool and cloudy conditions, when pollination services are often reduced. Syrphids visit over 72% of crop plants worldwide (Rader et al. 2020), including apple, strawberry, raspberry, blackberry, blueberry, cranberry, mango, avocado, and sweet pepper (FAO 2018). Research shows that flower flies can increase strawberry yields by ~70% and double the proportion of marketable fruit relative to hand pollination or pollinator exclusion (Hodgkiss et al. 2018). Interestingly, pollination by *Eupeodes latifasciatus* produced marketable fruit at nearly double the rate of *Episyrphus balteatus* (Hodgekiss et al 2018). James et al. (2024) found that strawberries pollinated by both bumblebees and flower flies (*Eupeodes corollae*) produced higher yields, better-quality fruit, and significantly increased vitamin C content because the two pollinators work at complementary times, ensuring more complete pollination during the flower's short receptive window. Flower flies even benefit "self-fertile" crops with improved seed set and fruit quality (Mooney and McGraw 2007).

Key Flower Fly Species Likely Supported

There is currently a lack of peer-reviewed literature linking specific flower fly species to specific aphid species. In the northeastern United States, the flower fly species most likely to benefit from the combined presence of willow and milkweed are long-season, aphidophagous syrphines that can exploit early woody-plant aphids and later herbaceous aphid systems. These include the following widespread, mobile, and commonly species observed in agricultural and garden landscapes:

Eupeodes americanus Long-tailed Aphideater
Abundance: common Flight Time: mid-Apr to mid-Nov

Allograpta obliqua Oblique Streaktail
Abundance: common Flight Time: mid-Apr to late Sept

Syrphus ribesii Common Flower Fly
Abundance: common Flight Time: late Apr to mid-Oct

At Blossom Meadow Farm (Southold NY), we have a large stand of common milkweed (*Asclepias syriaca*) that runs parallel to our 96' high tunnel red raspberry greenhouse. Currently, we do not have any *Salix* spp. planted. With limited effort in 2025, we catalogued seven species of aphid-eating flower flies (adults) using the iNaturalist app:

Eupeodes americanus Long-tailed aphideater (5/15/25)
note: individuals in the high tunnel throughout season, seen pollinating red raspberry even in mid-November
Eupeodes perplexus Bare-winged aphideater (10/18/25)
Eupeodes confertus Black-bellied Aphideater (3/31/25)
Allograpta obliqua Oblique Streaktail (7/4/25)
note: in high tunnel pollinating raspberry flowers and seen on milkweed flowers

Toxomerus geminatus Eastern calligrapher (9/18/25)
Toxomerus marginatus Margined Calligrapher (5/4/25)
note: hoards visiting our June bearing strawberries for entire bloom
Syrphus torvus Hairy-eyed Flower Fly (4/2/25)

In addition, *Eupeodes americanus* larvae were identified eating the multitudes of milkweed aphids on common milkweed (8/13/25). No aphid species were observed on our strawberry, red raspberry, black raspberry, or blueberry plants.

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