



# ANNUAL REPORT 2020

NATIONAL HORTICULTURE FOUNDATION

**The National Horticulture Foundation embraces the opportunity to seek out and provide support to projects relevant to the nursery and landscape industry along with addressing issues related to a diverse and changing horticulture industry.**

**Led by our vibrant network of business professionals, the Foundation is dedicated to seeing the industry thrive and survive well into the future.**

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## *Greetings to the Green Industry,*

I am writing to you as we bring to a close 2020 and start 2021. What a year 2020 was! It has truly been my pleasure to serve as NHF President this past year...a year mixed with triumphs and tragedies, closures and new doors opened. In January, business was good with a strong upbeat presence at the Tropical Plant International Expo(TPIE). March brought everything to an abrupt halt. We saw financial markets end high in 2019 only to plummet the first quarter of 2020 to completely erase 2019 gains. Third quarter brought things back around just in time for a historical election. What is next? If 2020 has taught us anything about a foundation's path, it is never about a single destination...it is about the long-term journey. It is an investment in the future of the industry and a clear understanding of the importance of giving.

National Horticulture Foundation's board made a commitment to be good stewards of the industry's contributions. We seek out ways to give back to the industry. Our portfolio has weathered wavering financial markets and continues to be strong. We are diverse in our investments and proud to support the nursery and landscape industry on an annual basis. I can assure you NHF will be here long after I am President and will continue to support research and education.

NHF strives to fund research that specifically deals with horticulture-related issues. Over \$130,000 was distributed to researchers to supported five projects in 2020 and we approved funding for three new projects to start in 2021. We are dedicated to help the academic community tackle industry challenges. We want to see your business continue to be successful and the industry to grow stronger.

This year, the NHF granted also provided more than \$25,000 in scholarships to students pursuing a career in horticulture. We had students from Florida universities and community colleges, Ohio State, University of Illinois, and Purdue. It is our mission to provide a pathway for these students so they can help make this industry thrive in the future.

In closing, I would like to share a quote below about giving. We have a responsibility to give back to the industry that has been so good to us. I am asking you to become an annual supporter of NHF. You can make an impact with any size of a gift. Help us continue our mission to advance the industry.

To contribute now please reach us by visiting [www.nationalhorticulturefoundation.org/contribute](http://www.nationalhorticulturefoundation.org/contribute), or by calling 800-375-3642 and ask about how you can set up your plan for giving.

Sincerely,  
George Hackney, NHF President  
Hackney Nursery Inc.

*"If you want to be large, larger than life, learn to Give...The importance of giving, blessing others can never be over emphasized because there's always joy in giving. Learn to make someone happy by acts of giving."*

~ Katharine Hepburn








# FINANCIAL STABILITY



The Foundation's focus has broadened to reach new audiences over the years, yet it has never lost sight of the importance of research and education. The Foundation is comprised of three funds: NHF's Main Portfolio, NHF's Advisory Solutions and NHF's Graduate Assistantship.

## NHF's Main Portfolio

 Cash & Money Market	\$12,055.15
 Mutual Funds - Held At Edward Jones Investments	\$2,746,695.09
 Asset & Mortgage Backed Securities	\$36,847.18
<b>Current account value:</b>	<b>\$2,795,597.42</b>
Account value as of December 2019	\$2,593,0554.45

ASSETS HELD AT EDWARD JONES	2017	2018	2019	YTD 2020
BEGINNING BALANCE	\$2,275,428.30	\$2,465,209.07	\$2,279,366.75	\$2,593,041.62
PERSONAL RETURE OF RETURN %	12.22%	-3.79%	16.59%	10.13%
ENDING BALANCE	\$2,465,209.07	\$2,279,366.75	\$2,593,041.62	\$2,797,191.38

## NHF's Advisory Solutions

 Cash & Money Market	\$27.37
 Mutual Funds - Held At Edward Jones Investments	\$375,630.97
<b>Current account value:</b>	<b>\$376,658.34</b>
Account value as of December 2019	\$335,080.69

ASSETS HELD AT EDWARD JONES	2017	2018	2019	YTD 2020
BEGINNING BALANCE	\$250,875.96	\$297,637.28	\$273,099.07	\$335,080.70
PERSONAL RETURE OF RETURN %	18.64%	-8.24%	22.70%	12.02%
ENDING BALANCE	\$297,637.28	\$273,099.07	\$335,080.70	\$375,373.46

## Graduate Assistantship/University of Florida

Funds managed by the University of Florida's Foundation

Contributions	\$525,000.00
Annual Endowment Payout	\$19,247.34
<b>Current account value:</b>	<b>\$546,232.99</b>

The National Horticulture Foundation's complete financial reports are available upon request from the FNGLA office.





## National Horticulture Foundation (NHF) supports both scholarship and research efforts.

Over \$800,000 has been given towards research. NHF strives to fund research that specifically deals with horticulture-related issues. Research can be done in Florida or out of state. NHF has been tasked with supporting projects in the areas of production, marketing, utilization, and distribution with an emphasis on research needs of Florida's horticulture industry. NHF was named a "national" foundation because it not only supports the horticulture industry in the state of Florida but seeks to protect the plants grown and exported to states across the country.

NHF seeks to support research with positive outcomes and a greater return on investment for the green industry. Whether understanding how to improve plant quality and longevity during transportation, increase purchasing motivation of consumers to increase demand for horticulture products, NHF's goal is to make a difference for the industry.

In 1996, we received a large contribution from the estate of James H. Davis that launched our scholarship program which has now grown into three different types of scholarships. We are able to fund approximately 25 students on an annual basis but we would like to see that number grow to over 50 students a year. There has been almost a half a million dollars in scholarships given over the years.

*Every day  
we have  
the opportunity  
to shape  
the future  
around us.*

*Join NHF's  
efforts  
advancing  
the industry*



# RESEARCH

*Research provides sound science for everyday decision making.*

The National Horticulture Foundation (NHF) seeks to support research with positive outcomes and a greater return on investment for the horticulture industry.



## 2019-2020 Funded Research

### *Addressing the Needs of Industry's Businesses*

#### **Research projects being conducted during 2019-2020**

##### **Development of Begonias with Enhanced Heat Tolerance for Florida Nurseries - Principal Investigator**

*Alfred Huo, Assistant Professor, University of Florida's Mid-Florida Research and Education Center, Apopka, FL*

##### **Evaluation of the epidemiology of lethal bronzing disease for reduction of spread and prevention of establishment in susceptible regions of the United States**

*Dr. Brian Bahder, University of Florida/Fort Lauderdale Research and Education Center, Fort Lauderdale, FL*

##### **Use of Potassium to Improve Foliage Plant Growth with Reclaimed Waste Water**

*Dr. Kimberly Moore, PhD, University of Florida Fort Lauderdale REC, Fort Lauderdale, FL*

##### **Development of New Pothos Cultivars for the Foliage Plant Industry**

*Dr. Jianjun Chen, Mid-Florida Research and Education Center, Apopka, FL*

##### **Management of Hibiscus Bud Weevil in South Florida**

*Dr. Catharine Mannion and Dr. Alexandra Revynthi, Tropical Research and Education Center, Homestead, FL*

#### **Newly funded projects, research to start in 2021**

##### **Improved Precision Irrigation of Trees in Planning and Managing Florida Friendly Landscapes**

*Dr. Richard Beeson and Hang Duong, Mid Florida Research and Education Center, Apopka, FL*

##### **Using LEDs to Improve Longevity of Living Green Walls**

*Dr. Celina Gomez and Dr. Paul Fisher, University of Florida, Gainesville, FL*

##### **Tipping Bucket Rain Gauge for Measuring Leaching Fraction in a Container Nursery**

*Dr. Tom Yeager, University of Florida, Gainesville, FL*

##### **Evaluation of soil fungi inoculants as biofertilizers for foliage plants**

*Dr. Sarah Emery, University of Louisville, Louisville, KY*



# GRADUATE ASSISTANTSHIP

In 2010, NHF's graduate assistantship program generated the level of funding needed for its first graduate-student project. NHF's Board of Directors serves as an advisory committee and provides direction and supervision to each graduate student and faculty member involved.

Graduate Student Shea Keene continues to work towards her Ph.D. She describes her work focus as follows:

"Flowers have intrigued and enchanted humans throughout history and across cultures. Fragrant flowers in particular have inspired verses and songs of praise by poets and playwrights such as Shakespeare, Tennyson, and Byron. Moreover, modern consumer preference research has found that buyers prefer fragrant flowers. One of the flowers whose scent has been venerated throughout history is *Viola odorata*, also known as the Sweet Violet. This unassuming purple violet is said to have an intensely sweet fragrance, something nearly unheard of in modern viola and pansy hybrids. The sweet violet was especially popular during the late Victorian era. Perfumes and cosmetics were imbued with its scent, and it featured prominently in floriography the use of specific flowers to send coded messages between suitors.

While *Viola odorata* is said to possess a unique strong aroma, surprisingly its fragrance profile has not been fully elucidated through modern headspace analysis. As part of Shea's doctoral research, she will characterize the floral fragrance of *Viola odorata* (wild type species and cultivars) using a dynamic push-pull headspace collection system and gas chromatography-mass spectrometry. Additionally, she will analyze the headspace aroma of modern pansy and viola hybrids popularly used as bedding plants, as well as an assortment of other *Viola* species. The volatile characterization of a variety of violet species and hybrids will contribute to the body of research on floral fragrance, and it will set the stage for the breeding component of Shea's future doctoral work. This component will focus on the selection of fragrance traits in a breeding scheme with the objective to develop a fragrant *Viola* hybrid cultivar."

2020 was a year full of challenges because of the coronavirus. The pandemic slowed research at crucial times, delaying many experiments and data collections. All may delay Shea's graduation until Spring of 2022. She has passed her Ph.D. qualifying exams and officially became a Ph.D. candidate in Environmental Horticulture. Shea has completed all of her coursework and supervised teaching requirements. She is now solely focusing on research for the remainder of her graduate program.

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Shea Keene is a Ph.D. student in the Environmental Horticulture Department at the University of Florida. She received her bachelor's degree in psychology from the University of South Florida. Originally planning on entering medical school, Shea followed a pre-medical track throughout her undergraduate career. During her final semester, however, she realized she was not happy in the medical field. She decided to scrap her medical school applications and instead applied for several horticultural internships, as she found a love for plants and gardening in preceding years.

During the fall of 2014, Shea lived on the island of Kaua'i and completed an internship at the National Tropical Botanical Garden. Upon her return to Florida, she gained employment at Bok Tower Gardens and worked full time as a gardener for all of 2015. While there, the Director of Horticulture introduced her to UF professor Kimberly Moore, Ph.D, who recommended graduate school and the Environmental Horticulture Department. Shea applied and was accepted as a graduate student by Thomas Colquhoun, Ph.D, and completed her master's degree in Environmental Horticulture in December of 2017. In January of 2018, Shea started her doctoral program focusing her research interests on floral volatile analysis and consumer preference studies.



### Our voice is strong to share NHF research...

The Foundation will continue to seek out ways to partner with other groups to advance the industry. Along with our continued funding efforts, NHF's board understands they are not doing it by themselves.

### Our voice is strong for FNGLA's Endowed Research Fund...

Worth over \$1 million, all interest earned annually from FNGLA's Endowed Research Fund at the UF Foundation goes to support research projects conducted by the University of Florida. An advisory committee consisting of industry members, provides supplementary grants to existing research taking place at the University of Florida. FNGLA values the strong partnership with the University of Florida and this fund specifically benefits UF's SHARE program (Special Help for Agricultural Research & Education), through UF/IFAS. The SHARE program includes research and education programs which develop new technological advances for the industry.

### Our voice is strong for NHF's Graduate Assistantship...

As a commitment to the strong partnership that already existed with the University of Florida's Environmental Horticulture Department, a portion of the National Horticulture Foundation's portfolio moved to the University of Florida Foundation where it received a 50% match in state funds to develop NHF's graduate assistantship program. With just over \$500,000 in principal, its first graduate-student project was started in 2010. NHF Board of Directors continues to serve as an advisory committee and provides guidance to each selected NHF graduate student and faculty member involved at the University of Florida. This assistantship provides a two or three-year funding source to students working on their masters or PhD.

### Our voice is strong and supportive of our National Industry Friends...

Organizations such as the Horticulture Research Institute (HRI) and American Floral Endowment (AFE), work on a national level to fund research. Together our voice is stronger.

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## NHF is committed to keeping research at your fingertips.



Search For NHF Funded Projects

**RESEARCH ARCHIVES**

Looking for more information on the research projects supported by NHF since 1987, visit [www.nationalhorticulturefoundation.org/research](http://www.nationalhorticulturefoundation.org/research)

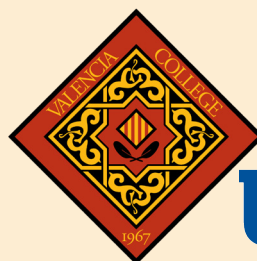
On an annual basis, NHFs scholarship program continues to establish pathways for qualified students in need of financial support. It allows students to gain experience and expertise, earn post high school degrees and become active members and leaders in the horticulture industry. Scholarships are available through the James H. Davis Memorial Scholarship Fund, Hoskin/McDougald Fund, and NHF General Scholarship Fund.



**Abraham Baldwin  
Agricultural College**



**PURDUE**  
UNIVERSITY®



**UF** UNIVERSITY of  
FLORIDA

### James H. Davis Scholarship Recipients

Bennett, Samuel/Sophomore  
Fox, Luke/Sophomore  
Maybury, Samatha/Senior  
Sorrell, Taylor/Senior  
Valenti, Cassie Brooke/Sophomore  
Gank, Keefer

Abraham Baldwin Ag College  
Southern IL University/Carbondale  
University of Florida  
Purdue University  
Florida Gulf Coast University  
University of Florida

### General Scholarship Fund

Benevenute, Sarah da Silva/Master's Degree  
Conner, Crystal/Graduate Student  
Duong, Hang Thi Thu/Graduate Ph.D student  
Iritarry, Patricia/Graduate Student  
Keene, Shea/Graduate Student  
Khamare, Yuvraj/Graduate Student  
Nguten, Chi Linh Dinh/Graduate Student

University of Florida  
University of Florida  
University of Florida  
Ohio State University  
University of Florida  
University of Florida  
University of Florida

### HOSKIN MCDUGALD

Cyr, Rachel  
Corrigan, Laura  
Causey, Aiden  
Pimentel, Robert  
Angelique, Morgan

Palm Beach State College  
Palm Beach State College  
Palm Beach State College  
University of Florida  
LaGrange College





# SCHOLARSHIPS

*The National Horticulture Foundation (NHF) believes in the future of horticulture and knows it plays a part in building future leaders.*







The National Horticulture Foundation(NHF) is built on the financial support of industry members.

With the generous contributions of the following endowment holders, NHF has principal earnings of \$2.6 million. Principal is never spent. Only interest earned from the portfolio is used to fund grants and scholarships.

### **Gold Builder (\$50,000 +)**

Action Chapter Endowment  
Hughes Memorial Fund Endowment  
James H. Davis Memorial Scholarship Fund  
June and Richard Rosacker Endowment  
Hoskin/McDougall Scholarship Endowment  
Olive Hill Greenhouses Endowment  
Phillip Matalon/Fancy Flora Endowment  
Raymond P. Oglesby Endowment  
Richard Fuhr Endowment  
TPIE Golf Classic/Allied Division

### **Silver Builder (\$35,000 - \$49,999)**

Florikan Endowment  
Agri-Starts Inc. Endowment  
Jason R. Zala Memorial Scholarship Fund

### **Builder (\$25,000 - \$34,999)**

Broward Chapter Endowment - FNGLA  
FIHRE- The Fund For Interior Horticultural Research  
Jose Costa Memorial Endowment  
Palm Beach Growers Classic Endowment  
Theo & Christina Bryant Endowment

### **Benefactor (\$20,000 - \$24,999)**

Tropical Plant Industry Exhibition

### **Patron (\$15,000 - \$19,999)**

Albert & Mildred Kraft Endowment  
Cialone Family Endowment  
Florida Nurserymen And Growers Association  
Florida Potting Soils Endowment  
Marshall Tree Farm  
Mike and Cecilia Rimland Endowment  
Past Presidents' Endowment  
Peckett Family Endowment  
Verlite Co. Endowment

### **Founder (\$10,000 - \$14,999)**

Batson's Greenhouse Endowment  
Bolusky Family Endowment  
Central FL Marketing Research Endowment  
Cialone Family Endowment  
Frank H. Abrahamson Endowment  
McRae Anderson Endowment  
Ned & Kim Bradford Endowment  
Prolific Plants Endowment  
R.A. Chris Christiansen Endowment  
Shannon Rinck Memorial Endowment  
The Scotts Spathiphyllum Endowment  
Van Donnan Endowment

### **Endowment (\$5,000 - \$9,999)**

Agri-Starts II, Inc. Endowment  
Anthony Frumento Endowment  
Bernecker Nursery Inc. Endowment  
Bryan Mitchell  
Charles A. Conover Endowment  
Charles MacLean Memorial Endowment  
Costa Farms Endowment  
Farm Life Tropical Foliage Of Homestead Endowment  
Foliage Design Systems Endowment  
Grandview Botanicals Endowment  
Green Star Foliage, Inc. Endowment  
Helen and Harold Martin Endowment  
Hermann Engelmann Endowment  
John E. Brown Endowment  
Kerry's Bromeliad Nursery Endowment  
Lake Region Endowment - FNGLA Chapter  
Lerio Corporation Endowment  
Liners Unlimited Endowment  
McCaren Designs Endowment  
Mercer Botanicals Endowment  
Michael M. Leider Endowment  
Michele Melnyk Endowment  
Moore's Greenhouses Endowment  
New and Emerging Pests Endowment

Parrish Family Endowment  
Spathiphyllum Growers' Endowment  
Suncoast Nursery Inc. Endowment  
Robert M. McColley Endowment  
Robert T. Mellen Endowment  
Robert R. and Sue Roberson Endowment  
Southeast Growers Endowment  
Sunshine Foliage World Endowment  
FNGLA - Treasure Coast Chapter Endowment  
Tran Trex Foliage Endowment  
Twyford Laboratories Endowment  
Wekiwa Gardens Endowment  
Whistling Pines Inc. Endowment

### **Sponsor (\$2,500 - \$4,999)**

A & L Southern Agricultural Labs  
Botanics Wholesale  
Jack Christmas  
Cityscapes Plant Care, Inc. Donaldson Greenhouses  
Eiichi Yoshida  
Excelsa Gardens Inc.  
Florida Plant Growers  
FNGLA Pinellas Chapter  
FNGLA Manasota Chapter  
Frye Farms  
Dr. Alfred B. Graf  
Highlands Heartland Chapter  
Lake Placid View Foliage  
Mike and Jo Raimondi  
Morning Dew Tropical Plants, Inc.  
N.G.M. Productions, Inc.  
Silver Krome  
Stepping Stone Nursery, Inc.  
Sunshine Tropical Foliage  
Universal Enterprise Supply

### **Giver (\$1,000 - \$2,499)**

Arvida Nurseries Corp of Kendall  
Benchmark Foliage, Inc.  
Blalock Foliage Inc.  
Combustion Service Co., Inc.  
Coastal Spring Chapter FNGLA  
Cultivate Wealth Management  
Deroose Plants, Inc.  
Driftwood Gardens, Inc.  
Everett L. Conklin  
Frederick C. Brummer  
Frederick Gloeckner  
James Vosters, Sr.  
Jerry Soowal/Broward Chapter  
John Mini Distinctive Landscapes Ltd.  
Joseph Hill  
Happy Plants  
Harry Ustler  
Harry M. Smith Endowment  
Hawaiian Sunshine Nursery

Raymond C. Hogshead  
I G I Marketing  
Illinois Landscape Contractors Association  
Imperial Builders & Supply, Inc.  
Landmark Plastic Corporation  
Landscape Services Professionals  
Larry Cobia  
Living Colors Nursery, Inc.  
John S. Masek  
Milestone Agriculture  
Nancy Carlisle Interior Plantings  
New Christie Ventures  
O.F. Nelson  
Roger Kjellgren  
Pixley Greenhouses  
Plantique, Inc.  
Professor Alex Laurie  
Strickland Regis  
The Jungle Nursery  
Traymax Inc.  
David and Karen Wheeler

### **Contributions under \$1,000**

American Farms  
Botanical Visions Inc  
Brown & Brown  
Buglady Consulting  
Christine and Jeffrey Lance  
Constance J Hom  
Eli Joseph Matalon  
Fantastic Gardens  
Fraleigh Nursery  
Hime Farm Inc.  
Jobs In Horticulture  
John and Lynn Peterson  
John and Michelle Mendoza  
Joseph Nicholson  
Ken Loomis  
Lester Coggins  
Lloyd Singleton  
Mitchell Nursery  
Pineview Nursery, Inc.  
Poe & Brown Insurance  
Regina Thomas  
Rosemary Warner  
Royal Palm Chapter FNGLA  
Total Landscape Supply





## 2020-21 NHF Board of Directors

A conservative approach, taken by the NHF Board of Directors, has allowed the portfolio value of NHF's fund to grow to \$3.4 million and weathered an ever-fluctuating financial market. Due to careful planning, the nursery and landscape industry will reap the rewards of the board's stewardship far into the future.



IMMEDIATE PAST PRESIDENT  
David G. Liu  
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PRESIDENT  
George Hackney  
Hackney Nursery Inc.  
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VICE PRESIDENT  
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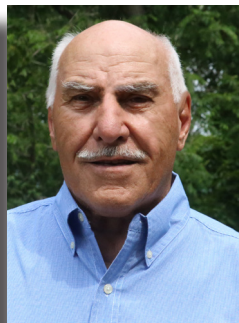
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Board Member  
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University of Florida  
dean.kopsell@ufl.edu



# National Horticulture Foundation

## Carve Your Imprint on the Industry's Future

Contact Name: \_\_\_\_\_  
Company/Firm Name: \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_  
Zip \_\_\_\_\_  
Phone \_\_\_\_\_  
Email \_\_\_\_\_

### Payment Information:

I pledge ☐ \$10,000 ☐ \$5,000 ☐ \$2,500 ☐ \$1,000  
☐ Other \_\_\_\_\_

Name of Fund/Endowment Contributing to:  
\_\_\_\_\_

Enclosed is my payment: \_\_\_\_\_

Please make checks payable to the

I want my gift to support:

- ☐ **Research grants**
- ☐ **Student scholarships**
- ☐ **Graduate assistantship programs**
- ☐ **No Preference**

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**Step 1** Send a new text message to 41444

**Step 2** Text GREEN  
<space> pledge amount  
<space> your name

**Step 3** Click the link in the reply message to fulfill your pledge



National Horticulture Foundation, 1533 Park Center Drive, Orlando, FL 32835.  
If you have additional questions, contact Linda Reindl,  
[lreindl@fnhla.org](mailto:lreindl@fnhla.org) or call 407/295-7994 or 800/375-3642.



Building the Future of the Horticulture Industry Through Research, Graduate Assistantships, Scholarships and Education.