

ANNUAL REPORT 2011



HRI[®]

Horticultural Research Institute



*It takes a community of the
green industry to make our
world a beautiful and healthy
place in which to live...*

ABOUT HRI

The Horticultural Research Institute (HRI) was established on Sept. 19, 1962, to support and promote horticultural research that benefits the nursery and landscape industry. HRI is the research affiliate of the American Nursery & Landscape Association (ANLA). Along with its research efforts, HRI provides the opportunity for individuals, businesses, associations and foundations to make important tax-deductible contributions for the support of educational and scientific research.

OUR MISSION

To direct, fund, promote and communicate horticultural research, which increases the quality and value of plants, improves the productivity and profitability of the nursery and landscape industry, and protects and enhances the environment.

CORE PURPOSE

- 1) To focus on industry survival issues such as pest management, environmental stewardship and sustainability, marketing, and mechanization/automation to reduce industry vulnerability to labor challenges and improve production efficiency.
- 2) To educate and enhance the industry by effectively communicating the results and facilitating the technology transfer of horticultural research.
- 3) To act as a clearinghouse for industry research and statistics.
- 4) To continue to develop HRI's Endowment Fund.

VISION

To be the premier horticultural research and development institution for the nursery and landscape industry.

2011 PRESIDENT'S MESSAGE

We are a community—a team of business leaders and concerned citizens that care for and value plants, people, and our environment. We are a diverse group that understands the important role that horticultural research and student scholarships have for ensuring the future of the green industry. The past few years have tested our community spirit, and many of you may have asked, “Why do I invest so much?”

The answer to this question is intangible. The essence of a green industry member cannot be quantified. We are a strong, hard-working, free-spirited, generous and gifted group. As diverse as our industry is we are also unified and support HRI, because we know that supporting the research foundation of the American Nursery & Landscape Association ensures that we are tackling the issues that impact our future successes.

We appreciate your investment in the future of HRI, and we continually strive to be good stewards of your gifts. Financially, we have remained conservative with our competitive grant funding while diversifying our research programs with continued investment in the bioresin and biodegradable nursery container endeavor. As this project reaches the commercialization phase, it will bring revenue for continued growth of the Endowment Fund. The HRI Board of Trustees believes in this worthy project. Especially as we consider the economic changes within the green industry. Having an additional revenue stream means that HRI can continue to grow and fund important projects for years to come regardless of annual contributions.

In the pages ahead, we highlight the generous gifts and the spirit of green industry giving. It takes a community to build a foundation, the way you have built HRI. We salute our founders and annual donors who have been loyal to HRI during these turbulent years.

With your continued outpouring of support for HRI, we will celebrate many more years of horticultural progress, including our 50th anniversary in 2012!

Dan Batson
GreenForest Nursery
2011 HRI President



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HRI RESEARCH GRANTS FOR 2011

HRI awarded \$219,000 to eight research projects, one research conference and four student scholarships in 2011. HRI is committed to support annual research efforts focused on the highest priority needs of the green industry. HRI strongly encourages collaborative research efforts and challenges scientists to focus research on attainable outcomes that show a return on investment for the green industry. Key research areas for 2011 included: green industry sustainability, pest management, garden center training and resource and horticultural management.

Selected research topics focused on green industry sustainability issues like quantifying carbon sequestration in woody and herbaceous nursery production, efficient and sustainable fertilizers, and creation of a biodegradable plant container.

HRI continues to address priority pest issues impacting nursery production. This year HRI research funding supported work on the ambrosia beetle and mite outbreaks in nurseries along with the strawberry rootworm, *Paria fragariae* Wilcox. This rootworm has long been considered a pest of strawberries, blueberries, and even roses. It has recently become a major pest in container azalea production in the Southeast.

A need exists to develop a readily available alternative to traditional pine bark substrates that is sustainable, uniform, stable, pest-free, easy to handle and economical. HRI continues to support a collaborative research project with Auburn University regarding alternative substrates. This year's substrate project addresses the operational aspects of how growers may apply the research to their operations. The research seeks to answer questions for growers including: How many acres of a pine stand would I need to sustain my per nursery acreage? What size chipper and hammer mill would I need to accommodate the quantity of wood fiber I would need to process?

2011 RESEARCH GRANTS: HRI AWARDS \$219,000

The principal investigator is listed for each project. Many projects are collaborations between multiple research institutions and researchers.

\$60,000: Biodegradable Nursery Container from Poultry Feathers -- Continued Research & Development of Bioresins and the Creation of an Alternative Petroleum-Based Nursery Container (Dr. Masud Huda, ANLA and USDA-ARS, Maryland, collaborators)

\$35,000: Evaluation of the Factors Affecting the Development of a Sustainable Substrate Operation (Drs. Charles Gilliam, Glenn B. Fain, Jeff L. Sibley, Tom V. Gallagher, and Anna-Marie Murphy, Auburn University, and Dr. H. Allen Torbert, USDA-ARS National Soil Dynamics Laboratory, Alabama)

\$25,000: Best Management Practices for Granulate Ambrosia Beetle to Reduce Pesticide Use and Secondary Mite Outbreaks in Nursery Crops (Dr. Steven D. Frank, North Carolina State University)

\$25,000: Development of Industry Standard Web-Based Training for the Garden Center Industry (Sean Lacey, South Mountain Learning, Pennsylvania)

\$20,000: Grower-led Development of PlantRight Invasive-Free Certification Program for Ornamental Plants (Christiana Conser and Joseph DiTomaso, Sustainable Conservation, California)

\$17,500: Quantifying Carbon Sequestration in Woody and Herbaceous Nursery Production Systems (Dr. Robert Schutzki, Michigan State University)

\$15,000: Moving Towards a Sustainable and Efficient Phosphorus Fertilizer for Ornamental Production (Dr. James Owen, Oregon State University)

\$15,000: Development of Novel Traps and Pheromonal Lures for Cost-Effective Monitoring and Control of Destructive Leaf Beetles in Ornamental Nurseries Strawberry Rootworm, *Paria fragariae* (Dr. Blair Sampson, USDA-ARS Southern Horticultural Laboratory, Mississippi)

\$TBD: SNA Research Conference at the Gulf States Horticultural Expo.

HRI STUDENT SCHOLARSHIPS

\$2,000 —Timothy Bigelow and Palmer W. Bigelow, Jr. Scholarship

\$2,000 —Carville M. Akehurst Memorial Scholarship

\$1,500 —Spring Meadow Nursery Scholarship

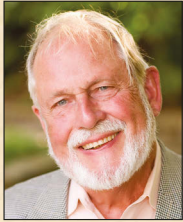
\$1,000 —The Muggets Scholarship



HRI OFFICERS & EXECUTIVE COMMITTEE 2011



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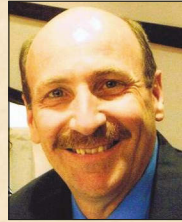
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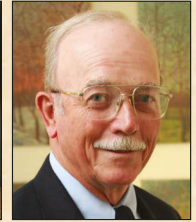
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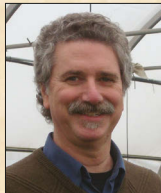
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Plants, People and the Future

At HRI we believe in investing in plants, people and the future. Your tax-deductible gift to HRI helps support research efforts that bring together research and business communities across the United States. HRI donors support a better environment, quality plants, and production practices, while supporting those that get to the root of biological and practical business issues -- the research community. Annual giving is vital to HRI's continued growth and success. Donations can be directed to existing named funds or to several designated general purpose funds within the HRI Endowment.

The following individuals and firms made an annual contribution or pledge to HRI in 2011. HRI is most appreciative of the continued support of our green industry members and friends.

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Eric Walker, Walker Nursery Co.
Joe and Marci Zampini

IN KIND SUPPORT

American Nursery & Landscape Association
Tom Pinney
The Design Works

2011 RECOGNITION DONATIONS

The following donations were made in honor and recognition of industry members in 2011.

In Memory of Bryan Champion

Gregory Ammon, Ammon Wholesale Nursery
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Shane Brown, C.M. Brown Nurseries
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J. Turkenburg Nurseries
Eric Walker, Walker Nursery
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Lawrence Bachman
Mr. & Mrs. Leon Brush
Mr. & Mrs. Wayne Collison
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In Memory of Bryan E. deWitt

Amy Frankmann
Robert Schutzki

In Memory of Thomas L. Henegar

Mr. & Mrs. Larry Edwards, Turtle Creek Nursery

In Memory of Allyn Lindstrom

Sarah Fowler

In Memory of Lydia Orum

Peter and Irma Orum, Midwest Groundcovers LLC

In Memory of Palle H Orum

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In Memory of Jane Scarff

Gordon Hobbs

In Memory of Dan Speer

Dale Siems

In Memory of Marjorie Wilde

Peter and Irma Orum, Midwest Groundcovers LLC

In Memory of John E. Wilde

Peter and Irma Orum, Midwest Groundcovers LLC

Very Important Partners Fund

John Brailsford by Janet Brailsford Shady Grove Plantation & Nursery Inc.
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Jolly Krautmann by Mark Krautmann, Heritage Seedlings Inc.
Amanda McAdam by Scott McAdam
Peter and Irma Orum by Charles H. Parkerson, Lancaster Farms Inc.

The Legacy Club Fund

Wayne Mezitt in honor of **Cullen Mezitt, and Braden and Graham Lindeman**
Peter and Irma Orum in honor of **Lydia Chen-Ching Orum-Keller**

In Honor of Dan Canova

Stephanie and Kevin Stockton

In Honor of John Hughes

Stephanie and Kevin Stockton

In Honor of James & Margaret Zampini

Margaret Pederson
Robert Pettorini
Marci and Joe Zampini

HRI GOLF CLASSIC

The 2011 HRI Golf Classic Tournament was held in conjunction with the Fairview Evergreen Nurseries, Inc. (FEN) 100th Anniversary Celebration on Aug. 10, 2011, in Girard, Pa., at the Overlake Golf Course.

HRI was proud to partner with FEN as it reached a historic 100 years of servicing the nursery and landscape industry. FEN marked this milestone with an Open House for all of its green industry friends. The event included nursery tours, equipment demonstrations, prizes, and refreshments.

The event raised more than \$30,000 with proceeds going to the HRI endowment in support of future research. HRI greatly appreciates the dedicated FEN staff and it's support in hosting the event. FEN is commended for its longtime support of HRI as an annual donor.

HRI GOLF CLASSIC SPONSORS

Thank You Fairview Evergreen Nurseries for partnering with the HRI Golf Classic! The generous support of the Fairview staff made the event possible.

\$2,500 Platinum Sponsor

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Buckeye Resources

DETERMINING THE REAL VALUE OF LANDSCAPE PLANTS

Research is focused on showing the environmental value of ornamental plants in residential, commercial and municipal landscapes

By David Kuack

After experiencing one of the warmest winters on record in the United States, people are certainly considering the impact that global warming and greenhouse gases are having on their lives. The benefits that plants can have on reducing the impact of global warming are something the nursery industry has an opportunity to promote to the public. More importantly the ability of plants to remove greenhouse gases, particularly carbon dioxide, from the atmosphere, can be useful to landscape architects, government and regulatory officials, municipalities, commercial developers and residential property owners in landscape planning and development.

Using plants to remove atmospheric carbon is referred to as terrestrial carbon sequestration. Plants use the process of photosynthesis to remove carbon dioxide from the air to produce carbohydrates that they use to grow resulting in the storage of carbon in the leaves, stems, trunks and roots. Also, some of the carbon stored in plant parts makes its way into the soil further adding to the overall stored terrestrial carbon pool.

ENVIRONMENTAL IMPACT OF PLANTS

Michigan State University horticulture professor Bob Schutzki said a lot of research has been done on the benefits that natural and urban forests have on removing and storing atmospheric carbon. He said research has also highlighted other benefits from these forests, including how trees contribute to water quality and how they reduce the impact of storm water on the environment.

"Trees intercept rain and minimize the impact water has on soils by helping to prevent compaction, soil erosion and surface runoff," Schutzki said. "Plant crowns and root systems help to slow the water down allowing for filtration of sediments and its infiltration into ground water. Reducing both the velocity and quantity of surface runoff minimize negative impacts on our waterways."

He said plants can also play an important role in property values, energy conservation and air quality.

"There are significant benefits provided by plants in built landscapes" Schutzki said. "However, most of the previous studies have only reported these benefits in natural systems, such as forests, grasslands and wetlands. Our research project that is funded by the Horticultural Research Institute is looking at plants in constructed landscapes and commercial nursery operations with a goal to generate data that shows the same benefits that have been determined for natural landscapes.

In a meeting last year, ANLA's executive vice president Bob Dolibois said "Chlorophyll is the glue that holds the industry together, Chlorophyll is green and the green in

our green industry is all about plants. Besides plants, there really isn't anything else significantly removing carbon dioxide from our terrestrial environment."

PUTTING A VALUE ON TREES

Research conducted on natural and urban forests has led to the development of the i-Tree Tools software program (www.itreetools.org) by the USDA Forest Service and cooperative organizations including Davey Tree Expert Co. and Casey Trees. The precursor to the i-Tree program was the National Tree Benefit Calculator (www.treebenefits.com/calculator). The calculator allows the user to plug in a location, a tree species, including size and age, and the type of planting site (residential, commercial or municipal). The calculator provides a dollar value related to carbon sequestration, energy savings, storm water treatment and air quality.

"This program has been a tremendous help for the landscape industry," Schutzki said. "Contractors and designers have used the program to show their clients the environmental benefits that trees in landscapes are providing. It also associates a dollar value with these benefits."

The calculator also enables the user to determine future benefits based on the size increase of the trees.

"The National Tree Benefit Calculator only focuses on trees," Schutzki said. "So the impetus for our project was to generate numbers for other plants that are typically used in the landscape, including shrubs and perennials."

Schutzki said another benefit to expanding the information is that it would enable municipalities to update their landscape ordinances to address the expanded ecosystem services provided by constructed green infrastructures.

"Many of these landscape ordinances were developed during the 1940s and 1950s and haven't been updated," he said. "Based on our data, municipalities will be able to update their ordinances to include a more comprehensive list of components that contribute positively to the environmental quality of their communities."

He said the information will be particularly helpful to those municipalities promoting Low Impact Development practices.

"We will be able to provide these municipalities with a number for benefits beyond just planting trees," he said.

The information can also increase plant diversity in the landscape. Schutzki said this is particularly important when plants are eliminated from the marketplace due to insects and/or diseases such as the losses caused by emerald ash borer.

THE BENEFITS OF PERENNIALS

Schutzki included perennials in the research project because of their popularity in the landscape, particularly ornamental grasses.

"Tree and shrub carbon storage is considered more permanent than perennials due to their herbaceous characteristics," he said. "With perennials, even though the carbon storage benefits may not be as great as with trees and shrubs, they provide other benefits such as contributing to water quality, storm water management and nutrient cycling."

Schutzki said perennials and annuals provide ecosystem services through their crown and root characteristics.

"When our work is completed we are hoping to be able to calculate benefits based on the size of perennial and ground cover beds," he said.

BENEFITS FOR THE INDUSTRY, CONSUMERS

Schutzki said the goal of the project is to generate scientifically valid data that can be used by all industry segments.

"The idea is to develop publications and literature that the various industry segments can download and use to promote the value-added benefits of the landscape," he said. "When consumers invest in their landscapes, they are not only investing in the value of their homes and property, they are investing in the aesthetic and environmental complexion of their communities."

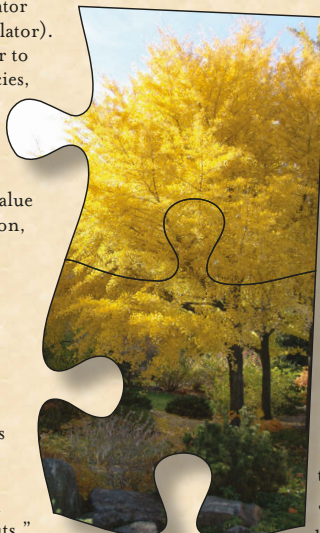
For more: Bob Schutzki, Michigan State University, Department of Horticulture, (517) 355-5191, Ext. 1337; schutzki@msu.edu.

David Kuack is a freelance technical writer in Fort Worth, Texas, dkuack@gmail.com.

This work was funded in part by HRI's Competitive Grants program.

2011 #1316, Quantifying Carbon Sequestration in Woody and Herbaceous Nursery Production Systems \$17,500

2010: #1303, Quantifying Carbon Sequestration in Woody and Herbaceous Plants \$22,500



LIMITING DAMAGE FROM AMBROSIA BEETLE

Research is focused on developing a practical integrated pest management strategy for controlling granulate ambrosia beetle

By David Kuack

Photo by Jim Baker, North Carolina State University.

Granulate ambrosia beetle (*Xylosandrus crassiusculus*) is considered a major pest by nursery growers in the southeast United States. A survey of growers conducted by the Southern Nursery

IPM Working Group (<http://wiki.bugwood.org/SNIPM>) found that ambrosia beetle was identified as the number one pest. The beetle attacks over 100 tree species including some of the most popular ornamental trees such as maple, dogwood, redbud, styrax, crepe myrtle, elm and magnolia.

"The grower survey was conducted specifically in the Southeast, but my colleagues in the Midwest, Northeast and mid-Atlantic see this beetle as one of the top nursery pests," said North Carolina State University entomologist Steven Frank. "So we established that this beetle was very economically important to the nursery industry. Also, a search of the scientific and extension literature indicated there wasn't much information about the biology of the organism or about how to manage it. There was clearly a need to study this pest."

Frank said another issue that made it more difficult to control this beetle is that it is not native to the United States. Therefore, it doesn't have a lot of natural enemies.

"This taxonomic group of beetles in general seems to be invading more often," Frank said. "There are multiple species that attack nursery stock, landscapes and wildlife areas."

Frank said that within the group commonly called ambrosia beetles there are several species that are pests of nursery stock.

"What we are finding is that these beetles behave similarly so the work that we do on one species should translate to others," he said. "*Xylosandrus crassiusculus* is the one doing the damage in the Southeast. In the Northeast and Midwest there is a species called *Xylosandrus germanus* (black stem borer). It is more common in those regions and is considered their primary pest.

"These are the two most common and damaging beetles within this group. There are several others like *Xyleborinus saxeseni* that are common but not as abundant. We are not sure if recent invaders such as *Xylosandrus mutilatus* will become wide-spread major pests or not."

SEEKING INTEGRATED CONTROL

With funding from the Horticultural Research Institute, Frank began to look for a practical integrated management approach to assist growers in controlling the ambrosia beetle. Frank chose to work with maple trees since they are one of the most commonly grown trees throughout North America.

"The genus *Acer* is one of the most commonly produced trees," he said. "I picked maple trees because of their broad appeal. Almost every nursery grows some kind of maple."



One of Frank's major objectives was to reduce the amount of pesticide that growers use to manage the beetle. He said he wanted to figure out a way to maintain high efficacy and high plant protection, but reduce both the economic and environmental costs.

AN EFFECTIVE APPLICATION METHOD

Frank conducted studies looking at different application methods. Growers typically apply the pyrethroid pesticide permethrin to control the beetle. The pesticide is normally applied using an air blast sprayer enabling the treatment of a large area at one time. The pesticide is applied to the entire tree, both the canopy and the trunk.

"What we found is that the ambrosia beetle only attacks the trunk," Frank said. "Therefore applying pesticides to just the trunks rather than to the whole tree saves a lot of insecticide and saves a lot of natural predators."

To speed up the application time, Frank worked with Richard Currin, owner of Currin's Nursery, in Willow Spring, N.C. Currin developed a prototype spray applicator wand equipped with two nozzles. The two nozzle applicator sprays all sides of a tree trunk at the same time. Frank said the applicator cuts the application labor time in half or more. Trials found the application time took an average of 3 seconds per tree (<http://ecoipm.files.wordpress.com/2012/02/franksadof2011reprint.pdf>).

Applicator studies were conducted at two commercial nursery operations. Panther Creek Nursery in Willow Spring, N.C., produces trees and shrubs using a pot-in-pot container system. Adcock's Nursery in Fuquay-Varina, N.C., produces trees and shrubs in above-ground containers.

"The two nozzle spray applicator wand allows the pesticide to be applied manually to the tree trunk eliminating the need for broadcast applications to the entire tree," Frank said. "What we found is that we get as good or better coverage of the trunk. Another benefit is since only the trunk is treated, there are more natural enemies and other beneficial insects in the tree canopy. This has led to fewer maple spider mite outbreaks in the trees that have received only the trunk applications.

"Spider mites tend to occur later in the season than the beetles. When broadcast applications with an air blast sprayer are made the spider mite predators are killed and spider mite outbreaks occur. There is huge savings in terms of the amount of chemical that is used and the damage caused by spider mites and the potential need for miticide applications."

MONITORING BEETLE ACTIVITY

Frank said the ambrosia beetle is primarily active in the early spring.

"It is usually the first pest that becomes active," he said. "It becomes active even before the trees have leaves on them."

The beetle appears the last week of February, first week of March in North Carolina.

"The beetle catches the growers off guard," he said. "The growers usually aren't into pest management

mode at that time. Then all of a sudden there is this beetle that starts to attack their trees. The beetles are active for about 12-16 weeks."

Frank said the beetles are monitored by North Carolina State Extension at different nurseries throughout the state. Once the beetle starts to appear alerts are sent out by email and Twitter (<https://twitter.com/#!/OrnaPests>) informing the growers of their activity.

"We initiated the alert system to help the growers," Frank said. "We have traps set in the eastern and central parts of the state, in the foothills and in the mountains. The traps cover four wide swaths throughout the state."

Frank said growers interested in monitoring the beetle activity at their nurseries can make their own traps. He said the beetles are attracted to ethanol. Traps can be made out of empty 2-liter soda bottles containing ethanol (www.ces.ncsu.edu/depts/ent/notes/O&T/trees/noteIII/noteIII.html).

TIMING PESTICIDE APPLICATIONS

Frank said most growers apply insecticides to control the ambrosia beetle every two to three weeks.

"We found that every three weeks is just as good as every two weeks," he said. "We recommend that growers apply pesticides every three to four weeks. So during the 12-16 week beetle season, a grower typically would make three to four applications."

IMPACT OF WATER STRESS

Frank said the next part of the study will focus on the ambrosia beetle's attraction to trees that are under stress. Stressed trees have been found to be subject to more beetle attacks.

"We are looking primarily at water stress, which can be either too little or too much water," he said. "We will try to determine at what threshold are the trees more attractive to the beetles. We are looking to determine how growers can manage water in a way that reduces ambrosia beetle attacks."

Frank said that studies have indicated that beetle attacks are worse if there is too much water.

"Hopefully growers will be able to drastically reduce ambrosia beetle attacks by changing their watering practices. By reducing the amount of water they apply they'll be able to reduce the number of beetle attacks. If growers do need to apply pesticides, then they can use the application technology that we developed. We are starting to integrate different pieces of research that have been done to come up with a practical integrated pest management strategy."

For more: Steven Frank, North Carolina State University, Department of Entomology, (919) 515-8880; sdfrank@ncsu.edu; www.cals.ncsu.edu/entomology/frank.

David Kuack is a freelance technical writer in Fort Worth, Texas, dkuack@gmail.com.

This work was funded in part by HRI's Competitive Grants program.

2011 #1317, Best Management Practices for Granulate Ambrosia Beetle to Reduce Pesticide Use and Secondary Mite Outbreaks in Nursery Crops \$25,000

THE HRI ENDOWMENT FUND

Major Giving Levels for HRI Donor Directed Funds

ENDOWMENT CIRCLES

Eight Circles were established to recognize the giving levels for individuals that establish a named endowment fund or put HRI in their will.

Emerald Circle . . \$500,000 and above
Diamond Circle . . \$250,000 to \$499,999
Founder's Circle . . \$100,000 to \$249,999
Funds recognized at this level were started before 1990

Platinum Circle . . \$100,000 to \$249,999
Gold Circle \$50,000 to \$99,999
Silver Circle \$25,000 to \$49,999
Bronze Circle . . . \$20,000 to \$24,999
Heritage Circle . . Individual Bequests

INDIVIDUAL AND CORPORATE CONTRIBUTORS OF THE HRI ENDOWMENT FUND

Donations of \$20,000 or more (paid over a five-year period) can take the form of a named fund in the HRI Endowment. The donor or group donating the money can name the fund. Funds begun at more than \$100,000 afford donors the opportunity to provide some guidance about the research that will be funded by the proceeds from the named fund.

HRI'S ENDOWMENT FUND CIRCLES

EMERALD CIRCLE

Sylvan Nursery-Sylvia and Neil Van Sloun Fund

DIAMOND CIRCLE

Bailey Nurseries, Inc. Fund
Gordon Bailey, Jr., "Tour de Hort"
Spring Meadow New Plants Fund
Spring Meadow Nursery Scholarship Fund

FOUNDER'S CIRCLE

These funds were established before 1990
Albert and Olga Bachman Fund
The Robert W. Baker Companies Fund
Imperial Nurseries for Ernest Bietenholz Fund
Timothy S. and Palmer W. Bigelow, Jr. Scholarship Fund
Fairview Evergreen Nurseries/F.C. Hetz Fund
Dwight Hughes Family Fund
Karl Junginger Fund
Ramona and Bob Lederer Memorial Fund
Edmund V. Mezitt Fund
Myra K. and Thomas S. Pinney, Jr., Fund
J. Frank Schmidt Family Trust Fund
Emanuel Shemin Fund
Ernest Tosovsky Fund
Martin W. Usrey Fund

PLATINUM CIRCLE

Carville M. Akehurst Memorial Scholarship Fund
Theodore & Emily Guarriello/Nursery Supplies, Inc. Fund
Prides Corner Farms Fund
Dayton Bag & Burlap Employees Fund
Sherman Nursery Company Fund

GOLD CIRCLE

Lewis Bookwalter/Berryhill Nursery Co. Fund
Bruce and Doris Briggs Fund
Campbell & Ferrara Fund
Alice Crocker Horticultural Research Fund
Susan and Bob Dolibois Key Award Fund
John W. Flemer Memorial Fund
William Flemer, III Fund
Flower Carpet Research Endowment Fund
Home Nursery, Inc.--Chuck and Jean Tosovsky Family Fund
Harold and Rebecca Nickel Fund
Ed and Betty Rosenthal Florikan Endowment Fund
Siebenthaler Family Fund
Hugh A. Steavenson/Forrest Keeling Nursery Fund
Melvin, Dona, Richard and Debra Surface Fund
Syngenta Professional Products Fund
Tennessee Valley Nursery for Hoskins, Minnie Lee & Bonnie Shadow Fund
The Usrey Family Scholarship Fund
Richard P. and Marian T. White Fund
John B. and Elizabeth Wight Fund
John E. Wilde Propagation Fund
Willoway Nurseries Endowment Fund

SILVER CIRCLE

Bill and Gusta Adams Fund
American Plantsman/Environmental Improvement Fund
Ed Brown Fund
Bruce Family Fund
Ray Brush Fund
Carolina Nurseries, Inc. Research Endowment Fund
Elma E. and John R. Collier Memorial Trust Fund
The Conard-Pyle Co. Fund
Otto Damgaard Research Endowment Fund
Dundee Nursery & Landscaping Company Fund
William Flemer, Jr., Fund
Florists' Mutual Insurance Fund
Flowerwood Nursery-Plant Development Services, Inc. Fund
Harold Harned Memorial Fund
Jack Harrell Sr. Fund
The Hicks Family Fund
Betsy Boggs Hillenmeyer Fund
Louis and Martha Hillenmeyer Fund
Robert and Eileen Hillenmeyer Fund
Hines Nurseries, Inc. Fund
Frank G. Kearney Fund
Frank S. and Hilda P. LaBar Fund
Landscape Plant Development Center Fund
The Lerio Corporation Fund
Dick and Lou Marshall Fund
McKay Nursery Fund
Muggets Scholarship Fund

Merten E. Natorp Fund
Hans Nelson Family Trust Fund
NSI/ Lerio Customer Marketing Fund
The Lydia and Palle H. Orum Research Fund
Otten Bros. Nursery & Landscaping, Inc. Fund
Richard E. Posey -- Buckeye Resources Inc. Fund
John and Gladys Powell Fund
The Scotts Company Fund
Shady Grove Plantation and Nursery Inc. /Johnny and Ninkie Brailsford Memorial Fund
Sheridan Nurseries Research Fund
Avery H. Steinmetz Fund
Sunleaf Nursery, LLP -- Robert & Carol Lyons Fund
Alma and Robert Taylor Fund
Bob and Jeanne Terry/Fisher Farms Fund
Valent Nurture Fund
O.L. and Verona Weeks Fund
Wight Nurseries Centennial Fund

BRONZE CIRCLE

Clayton A. Bunting Fund
Mr. & Mrs. Peter F. Costich for Edwin H. Costich Fund
Harold Crawford Fund
Richard E. Cross Memorial Fund
Arie F. den Boer Memorial Fund
Erickson Family Research Endowment Fund
Gold Star Wholesale Nursery, Inc. Fund
William and Kathryn Heard Fund
Allen M. Helmich Fund
The John Henry Co. Fund
The Hess Family Fund
Oliver A. and Fred R. Hobbs Fund
Hoffman & McNamara Endowment Fund
Hoogendoorn Nurseries, Inc. Fund
Horticultural Printers Fund
Keiding, Inc. Fund
The Kraft Family Fund
Esther M. Lawyer Memorial Research Endowment Fund
Lincoln Nurseries for Aart and Margaretha deWit Fund
Al and Gladys Lindstrom Owners of Wandell's Nursery, Inc. & Minnesota Valley Companies Fund
Maschmeyer Family Fund
Minnesota Bork Family Fund
Raymond and Jane Oglesby Fund
John J. Pinney Fund
Joyce O. and Thomas S. Pinney, Sr. Fund
William N. and Jane N. Scarff Fund
Richard Schlick Fund
Siebenthaler Patent Fund
Teufel Nursery Fund
Robert W. Turnbull Memorial Fund
Susie & Bruce Usrey Education Fund
Van Hof Nurseries Fund
Wellington Kennedy Memorial Research Fund
Weyerhaeuser Company Foundation Fund
Wiegand's Nursery Endowment Fund

INDIVIDUAL BEQUESTS THE HERITAGE CIRCLE

Gary E. Briggs
Raymond and Elizabeth Brush
John H. den Boer
Robert Eastman
Dwight Hughes
Joanne Kostecy
Gary Mangum
Peter Orum
Ashby Pamplin
Myra K. and Thomas S. Pinney, Jr.
Ernie Tosovsky

THE LEGACY CLUB FUND

HRI has established a fund that allows industry members to recognize legacies. Honor children, grandchildren or just that special someone through a donation of \$1,000/legacy to the Legacy Club Fund.

Legacy Club Members as of January 2012

Dale and Ruth Bachman for **Amy Bachman, Joel Bachman and Anna Itman**

Gordon and Jo Bailey for **Dan Bailey, John Bailey, Joseph Bailey, Mark Bailey, Michael Bailey, Patrick Bailey and Theresa McEnaney**

Dan and Kathy Batson for **Brad Batson**

Jim and Martha Berry for **Garner Kingston Berry**

Janet and John Brailsford, Jr., for **Elizabeth Allen Brailsford, Sarah Francis Lillian Coggins and Moultrie Thomas Brailsford Coggins**

Randy and Mary Davis for **Caleb Zane Davis, Colby Wayne Davis, Rande Elizabeth O'Donnell and Taylor Anne O'Donnell**

Randy Davis and Greenleaf Nursery Co in memory of **Gil Nickel**

Tom and Barb Demaline for **Karen and Eric Demaline**

Bob Dolibois for **Susie Dolibois** in honor of the Hawaiian sunset

Bob and Susie Dolibois for **Lucas, Jonah and Sophia Dolibois**

John and Winnie Dolibois and Betsy Lallathin for **Lucas John Dolibois**

Arthur (Bud) Eskola for **Ava Boyles**

James and Joanne Harden in memory of **Barney Grimm**

Marilyn Hicks for **Owen Bosley Folk**

Debra and Dwight Hughes, Jr., for **Hannah Joy Hughes and Sarah Faith Hughes**

Wayne Mezitt in honor of **Cullen Mezitt, and Braden and Graham Lindeman**

Peter and Irma Orum for **Christian R. Keller and Lydia Chen-Ching Orum-Keller**

Dan and Linda Nelson for **Jack D. Nelson**

Thomas S. and Myra Pinney, Jr. for **Nikki Stark**

Don and Christine Richards for **Alexandra and Jack Richards**

Greg and Ellen Schaan for **Calista Schaan and Cassandra and Chris Varricchione**

Evelyn and J. Frank Schmidt, Jr. for **Mitzie**

Evelyn Schmidt for **Laelie Rasmussen, Tirien Rasmussen, Bryn Webster and Avery Lael**

Frank and Barbara Schmidt for **Laelie Anna Rasmussen and Tirien Mercy Rasmussen**

Joseph and Virginia Schulte for **Audrey Baird and Catherine Baird**

Dale Siems for **Addison N. Ivie, Braidyn T. Siems, Brandon Lee Ivie, Breanne E. Ivie, Amber R.O. Siems, Austin J. Siems, Danielle A. Siems, Mackenzie M. Siems, Matthew J. Siems and Zoey A. Siems**

Bob and Jeanne Terry for **Cameron Evans, Kyra Evans, Karlie Evans, Haley Terry, Jenna Terry, Katlin Terry, Robert Terry, IV and Rory Richardson**

Bruce and Susie Usrey for **Jack Brown, Ruby Brown, Maxfield Brown, Chase Usrey, and Colin Usrey**

NATIONAL, REGIONAL AND STATE ASSOCIATION NAMED FUNDS

Many green industry associations and organizations find that HRI affords greater research opportunities by maximizing a larger endowment like HRI's to fund industry research. By creating a fund within the HRI Endowment, an organization does not have the administrative, operational, and overhead expenses typical of managing an investment portfolio. The earnings from a named fund support the named fund's grant award each year.

HRI funds horticultural research that meets industry-approved standards for value, impact and accountability. From the moment an investment is made by a donor, HRI handles the entire competitive grants process. Industry leaders evaluate the significance and economic usefulness of projects. HRI's scientific advisory panel assesses their feasibility, and methodology. HRI's leadership, financial advisors and investment committee take on the fiduciary responsibilities of the endowment.

EMERALD CIRCLE

Ohio Research Endowment Fund

DIAMOND CIRCLE

Oregon Nursery Industry Endowment Fund

FOUNDERS CIRCLE

These funds were created before 1990

Eastern Region IPPS Fund Recognizing: L.C. Chadwick, James Cross, William Flemer, III, Alfred J. Fordham, David F. Hamilton, Peter Orum, Ralph Shugert, Jr., William Synder, and James S. Wells
Illinois Nurserymen's Association Fund
Michigan HRI Endowment Fund
Southern Nursery Association
SNA/HRI Golf Classic Fund
Tennessee Nurserymen's Association Fund

PLATINUM CIRCLE

Associated Landscape Contractors of America Fund
HRI Golf Classic Fund
New England Nursery Association Fund

GOLD CIRCLE

California Association of Nurserymen Endowment for Research & Scholarship Fund
Florida Nurserymen & Growers Association Fund
Garden Centers of America Consumer & Retail Research Endowment Fund
Garden Council Marketing Fund
Massachusetts Nursery & Landscape Association Fund
Minnesota Nursery & Landscape Association Fund
NCTA Bob Stohr Memorial Christmas Tree Research Fund
New York State Research Endowment Fund
North Carolina Association of Nurserymen Fund
Pennsylvania Landscape & Nursery Association Fund
Rhode Island Nursery & Landscape Association Fund
Southern Region IPPS Fund
Texas Nursery & Landscape Association Fund
West Virginia Nursery & Landscape Association Fund

SILVER CIRCLE

ANLA Past President's Fund
Iowa Nursery & Landscape Association Research Corp. Fund
Mechanization Fund
Memorial Fund
South Carolina Nursery & Landscape Association
Very Important Partner Fund
Western Nursery & Landscape Association Fund
Wholesale Nursery Growers of America Fund

BRONZE CIRCLE

ANLA Centennial Fund
ANLA Industry Honor Roll
Georgia Green Industry Association Fund
Hudson T. Hartmann/Western Region IPPS Fund
Illinois Landscape Contractors Association Fund
Indiana Nursery & Landscape Association Fund
National Association of Plant Patent Owners Fund
National Landscape Association Fund
Nursery Growers of Lake County Ohio, Inc. Fund
Wisconsin Nursery Association Inc. Fund



RESEARCH SPOTLIGHT:

Summary-Interim report for *Grower-led Development of PlantRight Invasive-Free Certification Program for Ornamental Plants*

Funded 2011, \$20,000

Institution: Sustainable Conservation, 98 Battery Street, Suite 302, San Francisco, CA 94111.

Website: www.suscon.org

Principal Investigator: Christiana Conser

Index Words: People/Plant Interaction, Marketing, Weeds

OBJECTIVE: What green industry related question did this research address?

The nursery industry has introduced thousands of ornamental plants, and a small percentage (~1%) of these introduced plants has escaped to become invasive and caused economic and ecological damage. More than \$85 million is spent to control invasive plants in California. Nationwide, the impact of invasives and the cost of management can reach as high as \$135 billion a year. This calls for removing the small percentage of known invasive plants originating from nursery inventories and for preventing new plant invasions.

Our research is intended to provide nursery growers with a mechanism to evaluate the invasive potential of individual plant species prior to introduction, or in some cases, after they have been introduced. This will prevent the introduction of new invasive plants to the marketplace and circumvent the need for more stringent environmental regulations.

Because invasive plants represent only a small percentage of the horticultural inventory, screening plants for invasive qualities should not present a major economic hardship on the industry. Prescreening of potential introductions would be expected to categorize most species as possessing low invasive potential, and identify relatively few as having a high probability of becoming invasive. A similar result was obtained by an evaluation of horticultural plants in Florida (Gordon et al. 2008). More importantly, because development of new cultivars represents a significant economic investment for nursery growers throughout the U.S., pre-screening would prevent nurseries from spending important research and development dollars developing new cultivars that have high invasive potential.

RESEARCH METHODOLOGY:

How was this research conducted?

Sustainable Conservation's research consists of three components:

1. To develop a framework for writing a scientific standard for implementing the PlantRight WRA Assessment (WRA) tool within the Invasive-Free Certification Program;
2. To write the scientific standard; and
3. To inform and establish California's first voluntary Invasive-Free Certification Program.

PART 1: Sustainable Conservation's first step was to investigate examples of certification programs. This gave us important information about how to structure a certification program, and specifically consider how to implement the PlantRight WRA tool. We concluded from this research that the elements of any future certification program should address: who will perform the WRA screening, how results will be shared, how to protect intellectual property rights, how to promote adoption, and how to fund the program. Sustainable Conservation vetted the elements for a certification program with the nursery industry, government agency, and academic partners and asked questions about the best way to implement a program. During our research interviews, concerns were raised about certification programs. We have since modified our strategy to focus on developing a service-based program for screening plants and evaluating plant behavior.

PART 2: Sustainable Conservation developed a written protocol for how to use the WRA tool during a study comparing the accuracy of the PlantRight WRA model to the Australian Pheloung model. Sustainable Conservation is also working on the standard for how to incorporate the WRA tool in a service-based program. Based on nursery industry feedback, we plan to give consideration to how to provide information through a service-based program that helps the industry better understand plant behaviors such as invasiveness and regional suitability.

PART 3: The original concept in this grant was to develop an Invasive-Free Certification Program. Through our research interviews with stakeholders we have learned that stakeholders were concerned about which



Bob Adams of Sustainable Conservation's PlantRight program works with California's nursery industry to stop the propagation, distribution, and sale of invasive plants. With a grant from HRI, Sustainable Conservation's research is intended to provide nursery growers with a mechanism to evaluate the invasive potential of individual plant species prior to introduction, or in some cases, after they have been introduced.

part of the supply chain gets certified and the costs associated with certification. In response to industry's feedback, Sustainable Conservation's revised goal for this grant is to develop a cost-effective program for the industry to screen new plants in development for their invasive potential.

SIGNIFICANCE OF RESEARCH: What does the nursery industry know now from your research that was unavailable before?

Sustainable Conservation's PlantRight WRA tool is 98% accurate in detecting both invasive and non-invasive plants, compared to the Australian Pheloung model, which was significantly less accurate in identifying non-invasive plants (15%-88%). The Pheloung model consists of 49 questions which require a considerable time commitment to answer. This compromises its practical application in the green industry, because nurseries introduce, and may wish to evaluate, hundreds of new plants annually. Many of the traits evaluated in the Pheloung model are difficult to answer, and consequently only partial evaluations are typically conducted. The PlantRight WRA tool assesses plants on 27 traits, a significant reduction compared

to the Pheloung model. The higher accuracy in detecting non-invasive plants and reduced number of questions makes the PlantRight WRA tool the better option for use in the nursery industry.

OUTCOMES AND ECONOMIC RETURN ON INVESTMENT:

Did this research result in profitability for the green industry? Are there new products or technologies as a result of this research? How does this research specifically/directly benefit a green industry member? How will the research results be utilized in the green industry?

Sustainable Conservation's long-term goal is to develop a reliable, science-based protocol and appropriate technology to replace the fragmented set of procedures and systems that the industry currently uses to source and develop new plants for the U.S. and international markets. There is currently no uniform system or standard practices among the nursery industry's plant prospectors for recording collection information. Sustainable Conservation is currently outlining the elements of the service-based program.

DO YOU HAVE A RESEARCH WEBSITE OR BLOG?

www.PlantRight.org

Sustainable Conservation's PlantRight program works with California's nursery industry to stop the propagation, distribution, and sale of invasive plants. With a grant from HRI, Sustainable Conservation's research is intended to provide nursery growers with a mechanism to evaluate the invasive potential of individual plant species prior to introduction, or in some cases, after they have been introduced.

The full report can be found on the HRI website.

DONOR SPOTLIGHT

Ernest A. Tosovsky, Jr.



In 2011, HRI was the recipient of a generous \$100,000 donation from the estate of Ernest A. Tosovsky, Jr., of Home Nursery, Inc. Mr. Tosovsky was a lifelong resident of Edwardsville, Ill., where Home Nursery, Inc. was founded in 1921. Mr. Tosovsky was one of the founding HRI supporters. He established the Ernest Tosovsky Fund, the third fund created within the HRI endowment in the early 1980s.

"Ernie was a leader within the green industry and a key supporter of HRI since

its inception. Ernie believed deeply in the importance of horticultural research and HRI," said HRI President Dan Batson. "He made this extraordinary gift that will provide for vital nursery and landscape research that will serve the green industry for years to come. This donation is made during a critical period of need within the nonprofit sector. We are deeply honored and, indeed, humbled to receive this legacy gift."

Mr. Tosovsky was part of the second generation to run the family business serving as both president and then chairman of the board of Home Nursery, Inc. Professionally, he was past president of the Illinois Nurserymen's Association, past president of the American Nursery & Landscape Association, past president of the Madison-St. Clair Nursery Association, a member of the Board of Directors of the Voluntary Purchasing Group, and a member of the Greater St. Louis Nursery and Landscape Association.

In addition, he was a World War II veteran who served under General Patton. He was past president of the Edwardsville Rotary Club and was honored with a Paul Harris Fellow. He served on the Edwardsville YMCA Board of Directors, was a member of the Edwardsville/Glen Carbon Chamber of

Commerce and chairman of the Edwardsville Park and Recreation Board. Ernie was a member of the Illinois State Florists Association, served on the Advisory Board for the Dean of Agriculture at University of Illinois, and was chairman of the Agricultural Nursery and Greenhouse Advisory Committee for the American Farm Bureau Federation. He served on the Edwardsville School Board and was also a member of St. Mary's Catholic Church and St. Boniface Catholic Church in Edwardsville, Ill.

Tosovsky's support, service and generosity have had a profound impact on HRI and horticultural research. Mr. Tosovsky understood the importance of estate planning and charitable gifts. His spirit will live on through future research efforts of HRI.

HRI strives to maintain the vision of our donors like Tosovsky. We are a community built from the spirit and dedication of individuals who invest in associations, charitable nonprofits, and business services that support continued progress of the nursery and landscape industry.

Legacy gifts are a key component to HRI's continued research efforts. Join the HRI Heritage Circle by naming HRI in your will.

HORTICULTURAL RESEARCH INSTITUTE STATEMENT OF FINANCIAL POSITION

DECEMBER 31, 2011 AND 2010

Fiscal year 2011 was a year in which we reflect with tremendous gratitude to our donors and HRI members that entrusted us with their contributions for the betterment of HRI and the green industry. The year was challenging economically with high periods of volatility in the stock market that overall negatively impacted investment return for the year. This contributed to total assets being slightly lower than in 2010. With a renewed generosity found within the industry, HRI continued to maintain its research focus by targeting its research grants to specific projects that promote a tangible return on investment while being committed to adapting and being stewards to the donor legacy we highly value during this turbulent period. Donations to HRI totaled \$270,000 with a continued increase of annual donations and membership contributions. It is not only the endowed funds but also the annual donors that enhance HRI's commitment to green industry progress through innovative research. It takes a collective green industry to engage and support its research needs. We hope more within the community will take action to annually support HRI.

ASSETS	2011	2010
CASH IN BANKS	\$132,068	\$225,179
INVESTMENTS	9,552,134	9,971,415
PLEDGES RECEIVABLE & OTHER ASSETS	<u>482,588</u>	<u>616,920</u>
TOTAL ASSETS	<u>\$10,166,790</u>	<u>\$10,813,514</u>

LIABILITIES AND NET ASSETS

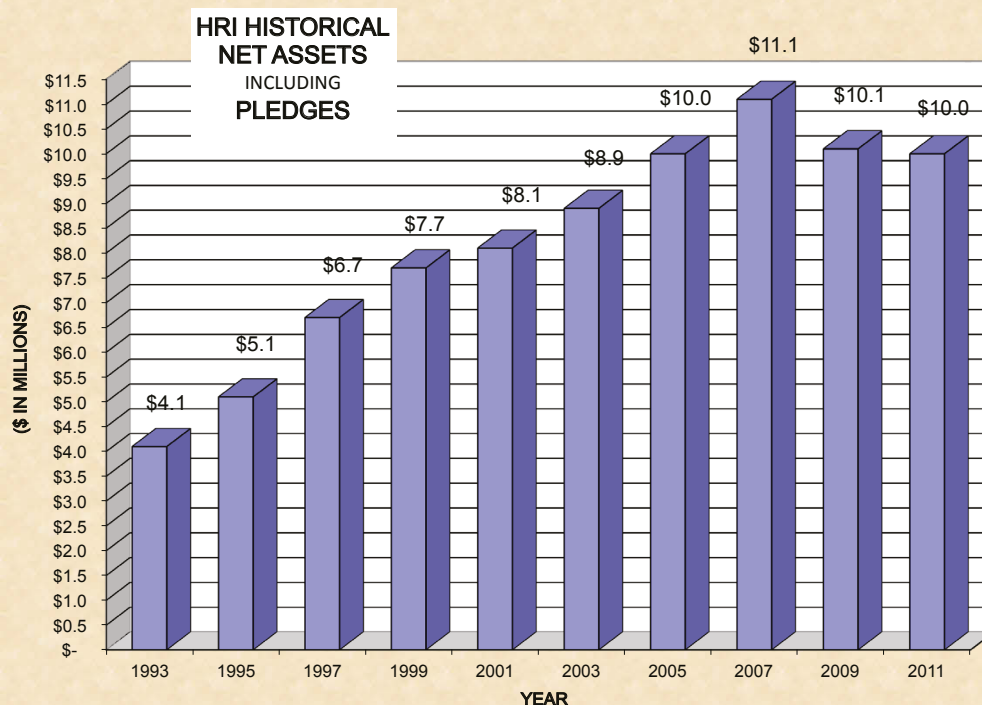
LIABILITIES

ACCOUNTS PAYABLE & DEFERRED REVENUE	<u>\$194,782</u>	<u>\$284,605</u>
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NET ASSETS

UNRESTRICTED	(59,183)	(154,231)
TEMPORARILY RESTRICTED	143,456	968,783
PERMANENTLY RESTRICTED	<u>9,887,735</u>	<u>9,714,357</u>
TOTAL NET ASSETS	<u>9,972,008</u>	<u>10,528,909</u>
TOTAL LIABILITIES & NET ASSETS	<u>\$10,166,790</u>	<u>\$10,813,514</u>

THE HORTICULTURAL RESEARCH INSTITUTE'S COMPLETE FINANCIAL REPORTS ARE AVAILABLE UPON REQUEST FROM HRI'S WASHINGTON D.C. OFFICE.



HRI SCHOLARSHIP RECIPIENTS FOR 2011

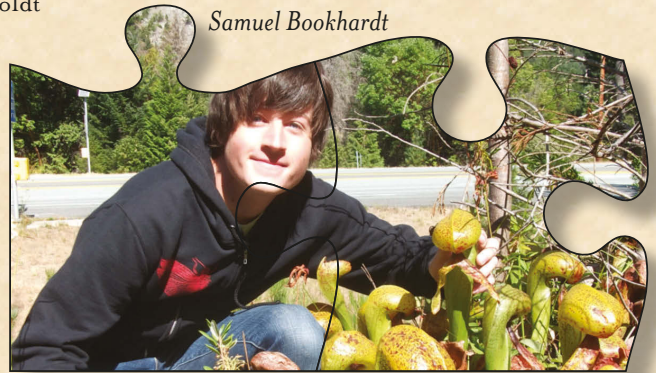
MUGGETS SCHOLARSHIP

The 2011 Muggets Scholarship of \$1,000 was awarded to Humboldt State University junior, Samuel Bookhardt of Beaverton, Ore.

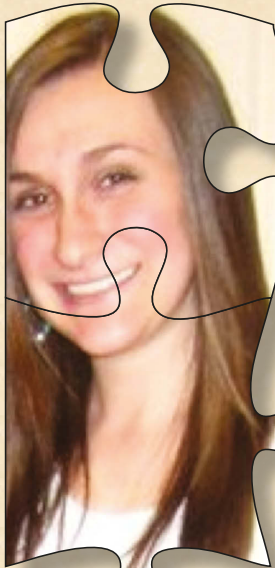
Mr. Bookhardt has been growing and collecting carnivorous plants since 2003. This has afforded him opportunities within the horticulture and botany fields and encouraged his pursuit of a Bachelor of Science degree in Botany.

Mr. Bookhardt noted in his essay he also enjoys music and exploring nature.

"In my free time you might find me playing a musical instrument or attending a concert," Bookhardt said. "I play French horn, drums and guitar. I have composed eight original songs and am dedicated to learning the intricacies in each instrument while creating my own unique sound. I enjoy playing French horn with the HSU Symphonic Band. I enjoy spending time outside, field tripping for wild plants (especially our native carnivorous plants.... I enjoy photography as well."



Samuel Bookhardt



Michele Langone

TIMOTHY S. & PALMER W. BIGELOW, JR. SCHOLARSHIP

The 2011 Timothy S. and Palmer W. Bigelow, Jr. Scholarship of \$2,000 was awarded to Michele Langone. Ms. Langone is a senior at the University of Vermont and resident of Burlington, Mass.

Ms. Langone is pursuing her Bachelor of Science degree in Sustainable Landscape Horticulture. Langone noted in her application her goals and the benefit of an HRI scholarship, "An HRI scholarship would benefit my education and career goals by allowing me to focus my energy on my studies without the constant concern of my finances," Langone said. "I am a member of the Honors College at the University of Vermont with a GPA of 3.72. Over the past few months I have been starting work on my thesis project. I believe that landscapes and green spaces on campus are essential in keeping the mental health of students, faculty and staff in good condition, so my project will be designing sustainable, multifunctional gardens for campus. As students, we spend most of our time confined to classrooms or residential halls. My designs will focus on creating gardens that are not only beautiful, giving students a place to escape from the pressures of school, but also functional, featuring edible and storm water treatment elements."

The HRI Endowment Fund is composed of several scholarship funds that aid students who are seeking a lifelong career in horticulture. HRI and its member firms consider graduating students in horticulture to be the lifeblood of the green industry. The individuals and firms who support these endowment funds are to be commended for their industry leadership.

To apply for an HRI scholarship applications must be submitted by May 31 of each year. Annual awards are distributed in September.

Individuals wishing to learn more about creating a scholarship endowment fund may contact Teresa Jodon at 202-695-2474 or tjodon@hiresearch.org

Complete details about HRI scholarships are found at www.HRIResearch.org under the scholarship tab.

CARVILLE M. AKEHURST MEMORIAL SCHOLARSHIP

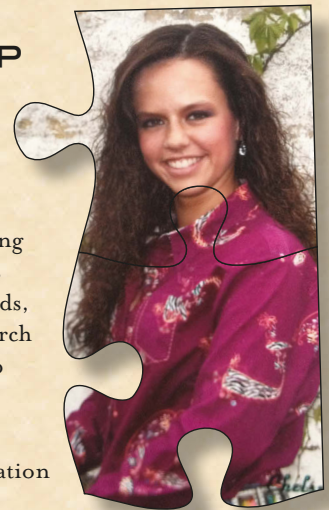
The 2011 Carville M. Akehurst Memorial Scholarships in the sum of \$1,000 each were awarded to Chelsea Gusler and Joseph Rothleutner.

Ms. Gusler from Dublin, Va., is a junior at the Virginia Polytechnic Institute and State University. She is majoring in horticulture and biochemistry. Ms. Gusler noted her reasoning behind a double major. "Horticulture is the study of plants, and biochemistry is the study of living things," Gusler said. "With these two majors, I will be opened to a wide variety of career options upon graduation, ranging from medicine, herbal medicine, pharmaceutical, environmental fields, vet med to one of my greatest interests, research. These two majors will give me the basis to research plants and create new and innovative plants or practices that could help the horticulturalist or agriculturalist be more prosperous."

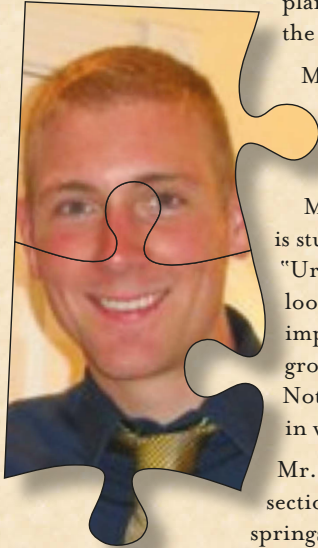
Ms. Gusler's additional interests include Future Farmers of America, intramural soccer, and participating in a campus student organization called Campus Crusade for Christ.

Mr. Rothleutner is a resident of Maryland and graduate student at Oregon State University where he is studying horticulture. In his scholarship essay, he wrote about the enjoyment of urban horticulture, "Urban horticulture amazes me," he said. "Whenever I walk through new neighborhoods I am always looking up at the trees and down at foundation plantings. I believe that green spaces in cities greatly improve the happiness of people. It's obvious the effects are positive. Gardening cooperatives are growing and the public is supporting urban forests by increasing canopy coverage in many cities. Not only are these plants making people feel good, but the ecological benefits have been publicized in ways that encourage people to be stewards of their environments."

Mr. Rothleutner's hobbies include card games and being outdoors. He completed the Maryland section of the Appalachian Trail and currently hikes in Oregon and enjoys relaxing in the hot springs. He additionally enjoys touring nurseries to view production facilities.



Chelsea Gusler



Joseph Rothleutner

SPRING MEADOW NURSERY SCHOLARSHIP

The 2011 Spring Meadow Nursery Scholarship of \$1,500 was awarded to Jason Lattier, a graduate student at North Carolina State University. Mr. Lattier graduated from college with Bachelor of Science degrees in botany and horticulture from N.C. State University. Currently, he is studying to receive his Master of Science in horticulture.

Mr. Lattier explained his interest in horticulture, "Since graduating from college, I have pursued...goals of horticulture by performing several garden and conservation internships, attending numerous trade shows and lectures, publishing research papers, and studying horticulture abroad," Lattier said. "My international experiences include research and gardening internships at destinations such as the Nectandra Institute in Costa Rica, Tresco Abbey Garden on the Isles of Scilly, the Eden Project, RHS Edinburgh, RHS Wisley, RBG Kew, and the U.S. ambassador's residence (Winfield House and Garden, London). Now that I have returned to the U.S., I have thoroughly enjoyed my first year as a graduate student in plant breeding at N.C. State University."



Jason Lattier



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EVENT PHOTOS

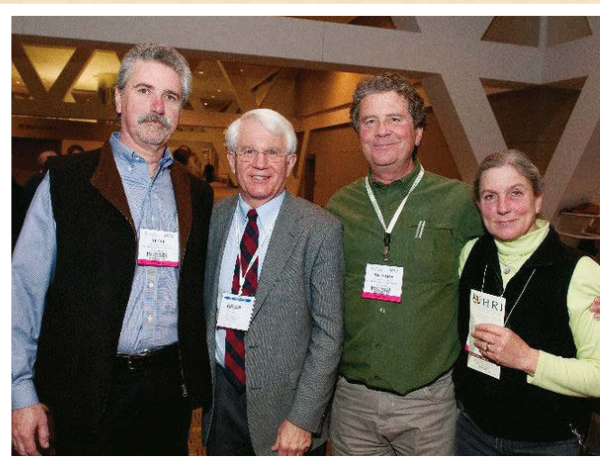


Mark Krautman with his granddaughter

FAR WEST SHOW
PORTLAND, OR



Mark Tefteau, Teresa Jodon, John Coulter and George Bear



Steve Castorani, Robert Dolibois, Richard and Heidi Hesselein

MANTS RECEPTION
BALTIMORE, MD



Our 2010 past president of HRI John Brailsford, Jr. is recognized for his service. He's shaking hands with HRI 2011 past president George Bear. Johnny, will be missed on the HRI Board!



*First Place Team!
Samuel Lumby, Robert Couch, Bob Smith, Rob Smith*

HRI GOLF CLASSIC
GIRARD, PA



Rick Vanderkruk and Garth Hetz



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