

HORTICULTURAL RESEARCH INSTITUTE

Progress Through Industry Supported Research

HRI GRANT AWARDS FOR 2007



The Horticultural Research Institute Executive Committee considered 100 applications for research funding in 2007 and granted \$350,000 to 24 projects and four scholarships. The committee selected research that focuses on industry priority issues that will result in problem-solving solutions and techniques.

The Executive Committee continues its efforts to grow the HRI Endowment Fund, currently at \$10 million. The committee reaffirmed HRI's efforts to broaden research activities through continued collaboration with the USDA-Agricultural Research Service (ARS) Floriculture and Nursery Research Initiative. The committee also agreed to fund a two-year post doctoral position at the USDA-ARS/Beltsville in support of the biodegradable pot research through the USDA-ARS/HRI Cooperative Research and Development Agreement.

Looking to the future, HRI leaders also agree to further expand the funding base for nursery research by pursuing such appropriate external funding opportunities as competitive grants from USDA and other federal agencies. HRI's vision is to become the nursery and landscape industry's research and development (R&D) national leader. In keeping with this vision, HRI leadership hopes to identify and support research opportunities that have direct industry focus, with potential commercialization outcomes that may offer a financial return on investment for HRI.

The following is a listing of HRI supported research for 2007. The principal investigator(s), total award amount, and the HRI endowment fund(s) selected to support the project are listed.

CROP PRODUCTION

Landscape Plant Development Center

Development of New Landscape Plants for all Regions of North America

(Dr. Harold Pellett)

\$30,000: Albert and Olga Bachman Fund•Bailey Nurseries Inc. Fund•Ray Brush Fund•Otto Damgaard Research Endowment Fund•Dundee Nursery & Landscaping Co Research Endowment Fund•Eastern Region IPPS Fund•Hudson Hartmann/Western Region IPPS Fund•Hoffman & McNamara Endowment Fund•Hoogendoorn Nurseries, Inc. Fund•Frank G. Kearney Fund•Landscape Plant Development Center Fund•McKay Nursery Fund•

Edmund V. Mezitt Fund• Minnesota Nursery & Landscape Association Fund•National Association of Plant Patent Owners Fund•New York State Endowment Fund•Richard Schlick Research Endowment Fund•Wholesale Nursery Growers of America Fund

Landscape Plant Development Center

(Dr. Harold Pellett)

Developing the Landscape Potential of Native Plants

\$3,000: Associated Landscape Contractors of America Fund•The Robert W. Baker Companies Fund•Esther M. Lawyer Memorial Fund

North Carolina State University
(Dr. Anthony V. LeBude)
Using Vapor Pressure Deficit to Control Intermittent Mist Application during Vegetative Propagation of Ornamental Species
\$5,000: Eastern Region IPPS Fund

North Carolina State University
(Dr. Thomas Ranney)
Breeding New Nursery Crops
\$10,000: Edmund V. Mezitt Fund•Spring Meadow New Plants Fund

The Ohio State University
(Dr. Hannah Mathers)
Evaluation of Postemergent Herbicides, Tree Guards and Fertility in Bark Cracking in Nursery Trees
\$17,000: Arie F. den Boer Memorial Fund•Indiana Association of Nurserymen Endowment Fund•Maschmeyer Family Grant Fund•Ohio Research Endowment Fund•William N. and Jane N. Scarff Fund•Sherman Nursery Co. Fund•Alma and Robert Taylor/Concord Nurseries Inc Fund•Willoway Nurseries Inc Fund

Washington State University-Puyallup Center
(Dr. Gary Chastagner)
Identification of Christmas Trees with Superior Needle Retention
\$10,000: Susan and Bob Dolibois Key Award Fund•Gold Star Wholesale Nursery Inc Fund•NCTA Bob Stohr Memorial Christmas Tree Research Fund•North Carolina Association of Nurserymen Endowment Fund•Oregon Nursery Industry Endowment Fund

MARKETING/CONSUMERISM

Gerke & Associates Inc, MO
(Mr. Joe Weston)
Category Management for Garden Centers
\$19,000: Betsy Boggs Hillenmeyer Fund•Campbell & Ferrara Fund•Edwin H. Costich Fund•Flower Carpet Research Endowment Fund•Garden Council Marketing Endowment Fund•GCA Retail and Consumer Research Endowment Fund•Merten E. Natorp

Fund•Emanuel Shemin Fund•Wiegand's Nursery Endowment Fund

PEST MANAGEMENT

Rutgers, The State University of New Jersey
(Dr. Albrecht Koppenhofer)
Granular Sex Pheromone Formulations for Oriental Beetle Mating Disruption
\$16,000: Bill and Gusta Adams Fund•ANLA Past Presidents Fund•Harold Harned Memorial Fund•Louis and Martha Hillenmeyer Fund•Dwight Hughes Family Fund•Al and Gladys Lindstrom/Wandell's Nursery & Minnesota Valley Companies Fund•New England Nursery Association Fund•Ray and Jane Oglesby Fund•Avery H. Steinmetz Fund•Robert W. Turnbull Memorial Research Endowment Fund•Valent Nurture Fund

The Ohio State University
(Drs. Pierluigi Bonello and Daniel A. Herms)
Molecular Biology of Ash Resistance to the Emerald Ash Borer
\$25,000: Dwight Hughes Family Fund•Illinois Nurserymen's Association Fund•Iowa Nursery & Landscape Research Corporation Fund•Michigan Nursery & Landscape Association Fund•Ohio Research Endowment Fund•The Lydia & Palle H. Orum Fund•J. Frank Schmidt Family Fund•Wisconsin Nursery Association Inc Fund

Pennsylvania State University
(Drs. Greg Hoover and James C. Sellmer)
Challenging and Evaluating Hemlock Species Susceptibility to Hemlock Woolly Adelgid (HWA) and Elongate Hemlock Scale (EHS)
\$5,000: The Robert W. Baker Companies Fund•Pennsylvania Landscape and Nursery Association Fund

USDA-ARS, FL
(Dr. Richard Mankin)
Development of Acoustic Technology for Early, Rapid and Effective Detection of Asian Longhorned Beetle Larvae within Landscape Trees
\$10,000: The Robert W. Baker Companies Fund•Ed Brown Fund•

Florida Nurserymen & Growers Association
Fund•Illinois Nurserymen's Association Fund

Tennessee State University

(Drs. Sam Ochieng and Jason B. Oliver)
*Pyrethroid Band Treatments to Certify Field
Nursery Stock Against Imported Fire Ant*
\$20,000: ANLA Centennial Fund•Elma E. and
John R. Collier Memorial Trust Fund•Hoskins,
Minnie Lee & Bonnie Shadow/Tennessee
Valley Nursery Fund•SNA/HRI Golf Classic
Fund•Syngenta Professional Products
Fund•Tennessee Nursery & Landscape
Association Fund

University of California

(Dr. Michael Coffey)
*Development of New Technologies for the
Detection of Phytophthora in Ornamental
Nurseries*
\$20,000: Bruce A. and Doris Briggs
Fund•Clayton A. Bunting Fund•CANERS
Fund•Imperial Nurseries for Ernst Bietenholz
Fund•Oregon Nursery Industry Endowment
Fund•Martin W. Usrey Memorial Fund•Ollie
and Verona Weeks Fund

Virginia Polytechnic Inst & State University and North Carolina State University

(Drs. Joseph C. Neal and Jeffrey F. Derr)
Controlling New Weeds in Nurseries
\$5,000: Lewis Bookwalter/Berryhill Nursery
Fund•Frank S. and Hilda P. Labar Fund•Dick
and Lou Marshall Family Fund

Pennsylvania State University

(Dr. Kelli Hoover)
*Short Range Pheromone of Asian Longhorned
Beetle*
\$15,000: ANLA Centennial Fund•ANLA
Industry Honor Roll Fund•John Flemer
Memorial Fund•William Flemer Jr. Fund•HRI
Golf Classic Fund•J. Frank Schmidt Family
Fund

Oregon State University

(Drs. John Luna and James Altland)
*Establishing Perennial Grass Cover Crops
within Tree Rows of Field Nurseries*
\$10,000: Karl Junginger Fund•Hans Nelson
Family Trust Fund•John Pinney Fund•Thomas

S. and Joyce O. Pinney, Sr. Fund•Oregon
Nursery Industry Endowment Fund•Melvin,
Dona, Richard & Debra Surface Fund

POST-PRODUCTION PRACTICES

Iowa State University

(Drs. William R. Graves and David Grewell)
*Continued Development of Bioplastics for the
Green Industry*
\$14,000: Albert and Olga Bachman
Fund•Theodore and Emily Guarriello/Nursery
Supplies, Inc. Fund•Hugh A.
Steavenson/Forrest Keeling Nursery
Fund•Martin W. Usrey Memorial
Fund•Western Nursery & Landscape
Association Fund

PRODUCTION/EFFICIENCY

California Polytechnic State University

(Dr. Shaun F. Kelly)
*Development and Performance of RFID
Containers for the Nursery Industry*
\$14,000: Theodore and Emily
Guarriello/Nursery Supplies, Inc. Fund•Dwight
Hughes Family Fund•Mechanization
Fund•Sylvan Nursery-Sylvia and Neil Van
Sloun Fund•John E. Wilde Propagation Fund

RESOURCE MANAGEMENT

US National Arboretum, USDA-ARS and Tennessee State University

(Drs. Donna Fare and Sandra Reed)
*Use of Controlled-Release Aluminum Sulfate in
Container Substrate for Controlling Flower
Color of Bigleaf Hydrangea*
\$6,500: Fairview Evergreen Nurseries/F.C.
Hetz Fund•Ed and Betty Rosenthal Florikan
Endowment Fund•Sylvan Nursery-Sylvia and
Neil Van Sloun Fund

Virginia Polytechnic Institute and State University

(Dr. Robert D. Wright)
*Nutrient Management of Ground Pine Chips as
a Container Substrate*
\$15,000: Johnny & Ninkie Brailsford Memorial
Fund•Harold Crawford Fund•Alice Crocker
Horticultural Research Fund•The Flowerwood

Nursery-Plant Development Services, Inc. Fund•The Legacy Club Fund•Memorial Fund•Southern Nurserymen's Association Fund•Weyerhaeuser Company Foundation Fund•Wight Nurseries Centennial Fund•John B. and Elizabeth Wight Fund

North Carolina State University

(Drs. Ted E. Bilderback and Stuart Warren)
Garbage IN: Substrate OUT Solving the Bark Media Shortage

\$13,000: American Plantsman-Environmental Improvement Fund•The Conard-Pyle Co Fund•Florists Mutual Insurance Fund•John Henry Company Fund•Hines Nurseries, Inc. Fund•Harold R. and Rebecca A. Nickel Fund•John and Gladys Powell Fund•Southern Region IPPS Fund•Ernie Tosovsky Fund

Auburn University

(Dr. Charles H. Gilliam)
Evaluation of a Forestry In-Field Harvesting By-Product as an Alternative Substrate in Containerized Nursery Crop Production

\$18,500: Bailey Nurseries Inc Fund•Keiding, Inc. Fund•The Kraft Family Fund•The Lerio Corporation Fund•Bob and Ramona Lederer Memorial Fund•West Virginia Nurserymen's Association Fund

WATER

Clemson University

(Dr. William Bauerle)
A Systematic Approach to Solve Nursery and Landscape Water Management

\$25,000: Bailey Nurseries Inc. Fund•Carolina Nurseries Fund•Hess Family Fund•Massachusetts Nursery and Landscape Association Fund•Prides Corner Farms Fund•Rhode Island Nursery and Landscape Association Inc Fund•Southern Nurserymen's Association Fund•Sylvan Nursery-Sylvia and Neil Van Sloun Fund•Marian T. and Richard P. White Fund

Colorado State University

(Drs. James E. Klett and Yaling Qian)
Interactive Impacts of Salts and Surfactants in Recycled Wastewater on Landscape Plants
\$16,000: Associated Landscape Contractors of America Fund•William and Kathryn Heard Fund•Illinois Landscape Contractors Association Fund•National Landscape Association Fund•Allen M. Helmich Fund•Oliver A., Fred R. and Harry W. Hobbs Fund•Siebenthaler Family Fund•Siebenthaler Patent Fund•Texas Nursery & Landscape Association Fund

SCHOLARSHIPS

\$2,000: Carville M. Akehurst Memorial Scholarship Fund

\$2,500: Timothy S. and Palmer W. "Bill" Bigelow, Jr. Scholarships

\$2,000: Spring Meadow Nursery Scholarship

\$1,500: The Usrey Family Scholarship