

10:50 - 11:15 Dr. Joseph Albano, USDA-ARS, U.S. Horticultural Research Laboratory, Fort Pierce, FL.

'Algae as an alternative substrate or substrate component for the production of containerized crops'



Joseph Albano received his B.S. at California State University, Fresno in viticulture and enology, and his M.S. and Ph.D. in horticulture and plant physiology at Clemson University, where he conducted research on metal-micronutrient disorders in floricultural crops.

Dr. Albano's current research is on the development of water treatment technologies to remediate nursery runoff of nutrient contaminants and to develop value-added products from waste generated from such systems. Emphasis is on optimizing Algal Turf Scrubber systems for use on nurseries and the use of harvested algal biomass as a container substrate component.

11:15 - 11:35 Dr. Glenn B. Fain, Auburn University, Department of Horticulture.

'Harvesting, Processing and use of WholeTree as a Substrate Component'



Glenn Fain received his B.S. in Horticulture at Auburn University after which he spent 10 years in the Nursery and Landscape Business. Fain returned to Auburn and received his M.S. and Ph.D. in Horticulture. He worked as an Assistant Research Professor for Mississippi State

and as a Research Horticulturalist for USDA-ARS before returning to Auburn. Dr. Fain's current research focuses on the use of forest and agronomic biomasses for use as sustainable substrate components in greenhouse and nursery production.

11:35 - 12:00 Panel Discussion

1ST ANNUAL HRI ALTERNATIVE SUBSTRATES CONFERENCE



HRI and Alternative Substrates Research

Over the last several years the Horticultural Research Institute Inc., USDA-ARS and Land Grant Universities have directed considerable resources toward research and development of alternative container substrates. You are invited to attend a conference revealing the current status of this national effort on Thursday January 20th, from 9:00 – 12:00 a.m.

This conference is sponsored by the Horticultural Research Institute Inc. and will be held in conjunction with the Southern Nursery Association Research Conference. The conference is free and open to all those in attendance at the GSHE. Learn what research has revealed about these alternative materials. How do these materials perform in production? What are the good, the bad, and the limitations with these materials? What is currently or will be the commercial availability of these materials? At the conclusion of the conference the presenters will engage in dialog and exchange views with growers, suppliers and other researchers.



9:30 - 9:55 Dr. Jim S. Owen, Jr., Oregon State University, North Willamette Research and Extension Center, Aurora, Oregon.

'Utilization of local biomasses as a Douglas fir bark or peat alternative for Willamette Valley container growers'



Jim Owen received his B.Sc. in Plant and Soil Science at the University of Kentucky, his M.Sc. in Environmental Science at University of Rhode Island, and Ph.D. at North Carolina State University with a major in Horticultural Science and minor in Soil Science. Dr. Owen's research and extension program focuses on four interrelated themes: water management, nutrient efficiency and fate, physiochemical properties of soilless substrate, and automation for precision management.

9:55 - 10:15 Dr. Cheryl R. Boyer, Department of Horticulture, Forestry and Recreational Resources, Kansas State University

'Developing Local, Sustainable Substrate Resources for the Great Plains'



Cheryl Boyer earned a B.L.A. (Landscape Architecture) and M.S. in horticulture from Oklahoma State University in 2003 and 2005 respectively before completing her Ph.D. in horticulture at Auburn

University in 2008. Dr. Boyer's doctoral research focused on the use of Clean Chip Residual, a forestry by-product, as an alternative substrate. She has expanded this work at Kansas State University where she has been evaluating invasive tree species as alternative substrate materials for nursery crops.

10:15 - 10:25 Break

10:25 - 10:50 Dr. Brian E. Jackson, Department of Horticulture, North Carolina State University

'Development, Processing and Application of Sustainable Substrate Components from Cotton Stalks and Forest Resources'



Brian Jackson received his B.Sc. in Horticultural Science at North Carolina State University, his M.Sc. in Horticulture at Auburn University, and his Ph.D. at Virginia Tech. Dr. Jackson has a teaching/research appointment which includes the instruction of four undergraduate

courses. Jackson specializes in the development and application of alternative organic materials to replace or supplement horticultural potting mixes (substrates) and landscape mulches. Brian is also a full partner in the Horticultural Substrates Laboratory at NCSU which is the largest and most comprehensive academic laboratory for substrates and landscape mulches in the US.

Conference Schedule

9:00 - 9:05 Opening Remarks, Dan Batson, 2011 HRI President

9:05 - 9:30 Dr. James E. Altland, USDA-ARS Application Technology Research Unit, Wooster, OH

'The practicality of harvesting biomass/bio-energy crops for use as a substrate'



James Altland received his M.S. and Ph.D. degrees in horticulture from Auburn University. He worked as a nursery crop research and extension specialist for Oregon State University before moving to Ohio to work with the USDA-ARS as a Research Horticulturist.

Dr. Altland's research focus is on development of alternative substrates for nursery crops and herbicide application technology. His substrate research is currently focused on developing viable substrates using biomass crops as the primary component.