When I look through this issue of the Plant Sciences Quarterly, I am amazed at the tremendous quality and productivity of our students, staff, and faculty. It is especially gratifying to see our high quality students being recognized by numerous awards and scholarships (pages 2 & 3). I had the pleasure of traveling to the Lake with six of our undergraduate students back in October to attend the Missouri Seedmen’s Association annual banquet. Each student was presented with a scholarship check from the Association. There are many other examples, including the recognition of Sherry Flint-Garcia and Mike McMullen, USDA-ARS scientists and adjunct faculty members in Plant Sciences, for their work on the Maize Diversity Project that has the goal of improving corn yields in the US and in developing countries (page 3). Be sure to take a look at the interesting information on Bob Sites’ group in this issue’s “Know Your Colleagues” section (pages 8 & 9). Dr. Sites has an international reputation in insect biodiversity research and has been a leader in CAFNR’s study abroad program.

The projects and publications documented on pages 10 through 13 are good evidence of why Mizzou ranked 8th nationally and 15th globally in plant and animal science research in a Thomson Reuters’ Essential Science Indicators survey based on research article impact across more than 88,000 institutions all over the world. I am especially proud of the way in which our nearly 100 graduate students are mentored to develop their own skills as scientists and to make their own contribution to this productivity and reputation.

We are fortunate to have a number of faculty positions available (pages 5 & 6). Active searches include Viticulture Assistant Extension Professor, Assistant/Associate Professor: Biomass Feedstock Molecular Physiology and Breeding, Assistant Professor of Forage Physiology, Assistant Extension Professor of Weed Science, and Assistant Research Professor of Entomology. The latter two positions are located at the Fisher Delta Research Center in Portageville and the bioenergy position is a joint Mizzou Advantage hire with the School of Natural Resources. Sadly, we lost our good friend and colleague, Anthony Peccoux, in November. In less than a year in the program, Anthony had already elevated the level of enthusiasm and collaboration in the Missouri Grape and Wine Institute to new highs. We will miss him but his contributions will last into the future.
Awards & Honors

Oliver elected Fellow of AAAS
Melvin Oliver, Research Leader with USDA-ARS was elected Fellow of the American Association for the Advancement of Science (AAAS) to the Section on Agriculture, Food, and Renewable Resources. He was elected for distinguished contributions to plant stress biology, particularly for elucidating mechanisms of desiccation tolerance, as well as promoting plant sciences both nationally and internationally. Election as an AAAS Fellow is an honor bestowed upon AAAS members by their peers. New Fellows will be presented with an official certificate and a gold and blue rosette pin on February 16, 2013 during the 2013 AAAS Annual Meeting in Boston, Massachusetts.

The American Association for the Advancement of Science (AAAS) is the world’s largest general scientific society, and publisher of the journal, Science (www.sciencemag.org). AAAS was founded in 1848, and includes 262 affiliated societies and academies of science, serving 10 million individuals.

Reynoso-Velasco awarded scholarship from CONACYT
Daniel Reynoso-Velasco (I am from Mexico) and I am working on a project of the fauna of Naucoridae from Mexico under the advice of Dr. Sites in the Enns Entomology Museum. The formal title of my project is “Systematics of the Naucoridae (Hemiptera: Heteroptera) of Mexico”. Last summer I was awarded with a prestigious scholarship from The Consejo Nacional de Ciencia y Tecnologia - CONACYT (the Mexican National Council for Science and Technology) to pursue this project. This scholarship covers an amount of $33,000 dollars.

Long and Botch receive awards at annual ESA Meeting
Graduate students, Elizabeth Long and Paul Botch received awards at the Entomological Society of America (ESA) meeting in Knoxville, TN, November 11-14, 2012. They were each awarded ‘Runners-up’ for the President’s Prize in the 10-minute student paper competition. Long’s paper was entitled, “Indirect effects of predator diversity on a vector-borne plant pathogen.” Botch’s paper was entitled, “Landscape interactions with subterranean termite (Isoptera: Reticulitermes) communities in Missouri: patterns of invasion as subdivisions are developed and age.”

Nearly 3,000 people attended Entomology 2012, with meeting attendees coming from 49 different countries. The meeting featured 103 Symposia and a total of 2,485 presentations, including 405 posters and 230 student competition posters, plus 33 virtual posters.

Shauck and Cornelius receive awards at NCWSS meeting
On December 12, Tye Shauck, Ph.D. student advised by Reid Smeda, (left) and Cody Cornelius, undergraduate student in Crop Management, (right) were given awards at the North Central Weed Science Society annual meeting in St. Louis, MO. Tye won second place in the paper contest for oral presentation of the paper entitled: Pollen viability of Amaranthus species in vitro. Cody won first place in the undergraduate poster contest for the poster entitled: Efficacy of pre-emergence versus postemergence herbicides on glyphosate-resistant horseweed (Conyza canadensis) in soybean (Glycine max).
Awards & Honors

McMullen & Flint-Garcia receive Secretary Honor Award

Michael McMullen and Sherry Flint-Garcia, USDA Research Geneticists, Adjunct Faculty members in the Division of Plant Sciences, and members of the Interdisciplinary Plant Group at the University of Missouri, were awarded the USDA Secretary’s Honor Award for Excellence in the category of “Helping America promote sustainable agricultural production and biotechnology exports as America works to increase food security” on September 12, 2012 in Washington, D.C. As part of the Maize Diversity Project they have “pioneered research on the development and application of innovative genetic and genomics-based tools to exploit genetic diversity in corn to improve corn yield in the US and developing countries”.

Glasshouse named honoring Gustafson

J. Perry Gustafson, adjunct professor in the Division of Plant Sciences at the University of Missouri, will be honored Feb. 5 by the University of Nottingham, UK, with a glasshouse complex named in his honor. The approximately £1 million ($1.6 million) greenhouse facility recognizes Gustafson’s 40 years of research to improve world wheat production.

Gustafson’s research focuses on plant gene manipulation in cereals to increase quality and quantity of the crop. His studies include how chromosomes function, and how plant breeding and molecular techniques are used to manipulate genes from one species of cereals to another. Gustafson is a member of MU’s Interdisciplinary Plant Group and was the world-wide chair of the 9th International Plant Molecular Biology Congress. Gustafson, who also served as a research geneticist in the USDA’s Agricultural Research Service before his retirement, earned his bachelor’s and master’s degrees from Colorado State University and his Ph.D. in plant genetics from the University of California, Davis.

A University of Nottingham research priority is global food security, including crops for the future. It recently received a £2.2 million research grant to use crop cytogenetics to study untapped reservoirs of genetic variation in wild varieties of wheat. Cytogenetics, which studies the structure and function of the cell, especially the chromosomes, is one of Gustafson’s research areas. The university is located in Nottingham, Kuala Lumpur, Malaysia and Ningbo, China. Nottingham is a research-led institution. Alumni of the university have been awarded two Nobel Prizes this decade. Nottingham is also among the top four universities in Britain in research income received, being awarded over £150 million in research contracts for the 2009–2010 academic year. Excerpt taken from CANFRnews.com written by Randy Mertens.

Students awarded scholarships from Missouri Seedmen’s Association

Six undergraduate students were honored with scholarships at the 2012 Missouri Seedmen’s Association banquet on October 4, 2012. Ryan Barnes, Matthew Caldwell, Garth Duncan, Stefanie Kincannon, Caitlin Vore, and Kari Weis all accompanied Dr. Collins to the Lake of the Ozarks and received their respective scholarship. The Missouri Seedmen’s Association, Garth Duncan, Ryan Barnes (background).

Kincanon & Price named Lobenstein scholarship recipients

The MoTOC Board of Directors awarded Plant Science seniors, Stefanie Kincanon (left) and Kelsey Price (right) the Lobenstein Scholarship at the Missouri Green Industry Conference held December 6, 2012 in St. Charles, Missouri. Kincannon is studying Turfgrass Sciences and is presently working as an intern for MU Athletics gaining experience in sports field maintenance and game prep. Stefanie plans a career as a consulting agronomist in the turfgrass industry. Price is majoring in Landscape Design and currently works at Tiger Garden in the Agriculture Building on campus and is active with the Hermann Garden Club. Kelsey hopes to start working with a reputable landscape company to gain experience and eventually open her own landscape business.

Excerpt taken from CANFRnews.com written by Randy Mertens.
Nematode SPIT meeting held in October

Dr. Melissa Mitchum’s Lab hosted the 11th US Nematode SPIT meeting October 29-30, 2012. In attendance were faculty, post-docs, and students from the labs of Richard Hussey (University of Georgia), Thomas Baum (Iowa State University), Eric Davis (North Carolina State University), Xiaohong Wang (Cornell University), Axel Elling (Washington State University), and Martin Wubben (Mississippi State University). Discussions focused on stylet-secreted effectors proteins of plant-parasitic nematodes, including soybean cyst, potato cyst, beet cyst, root-knot, and reniform nematodes.

Vore & Davis receive scholarships

Caitlin Vore (left) and Heidi Davis (right), two senior undergraduate students in Plant Sciences, were 2012 recipients of the Western Seed Association scholarship. At a banquet in Kansas City on November 5, Reid Smeda accompanied students to receive their distinguished awards. Scholarships are awarded to students who demonstrated long-term interest in agriculture.

Millikan Memorial Lecture given by Geert Smant

The 7th Annual Millikan Memorial Lecture was held November 14, 2012 in the Chambers Auditorium. The lecturer was Geert Smant from Wageningen University. His lecture was entitled, “Suppressors and activators of plant innate immunity in nematode secretions.” Dr. Smant was very impressed and thoroughly enjoyed his visit. Thank you to the SAPP officers for their excellent leadership, for those of you for getting involved and helping with the event.

Sharp a part of organizing International workshop in Beijing

The Interdisciplinary Plant Group (IPG) was invited to join Lancaster University (UK) and China Agricultural University in organizing the “International Workshop on Food Security: Science, Technology and Policy”, which was held September 22-25, 2012 in Beijing, China. Bob Sharp and David Braun represented MU, the IPG and the Missouri Maize Center at the workshop. The workshop was held in association with the International Food Security Alliance (IFSA), of which MU and the IPG is a member. The IFSA, which was launched in September 2011, comprises a partnership of institutions to address the research and educational challenges of global food security.

Maw traveled to Colombia to collect Common Bean samples

In September to October the Fritschi Crop Physiology Lab sent me to the International Center for Tropical Agriculture (CIAT) in Colombia to collect Common Bean samples as part of a new research relationship with the Bean program at CIAT. Would you like more information on this, perhaps a short blurb? I spoke at the fall IPG Research Retreat on this topic to encourage other grad students to look beyond our borders for research opportunities.
Open Faculty Positions

**Viticulture Assistant Extension Professor**

*Position Description:* Assistant Extension Professor and State Extension Specialist for Viticulture and Winery Operations. This is a professional-track (non-tenure) position in the Division of Plant Sciences, College of Agriculture, Food and Natural Resources, University of Missouri. The position, which is part of the Institute for Continental Climate Viticulture and Enology (ICCVE), is located on the MU campus in Columbia, MO.

*Responsibilities:* This position will be the primary contact for extension education information, technology transfer and programming regarding viticulture and enology in Missouri. The successful candidate will develop a nationally recognized extension program in viticulture appropriate for Missouri and other transition zone states. The position will provide statewide program leadership that assists, supports, and strengthens the work of other state specialists, regional extension specialists, producers and winery operators and will work closely with industry representatives to facilitate technology transfer and adoption of best management practices. The successful candidate should generate and disseminate viticulture and enology information at workshops and short courses, contribute educational material to industry publications, newsletters, websites and other electronic communication outlets. The successful candidate will develop an applied and relevant research program that supports education efforts and will publish results in refereed journals and at professional meetings.

**Assistant/Associate Professor: Biomass Feedstock Molecular Physiology and Breeding**

*The position will be 80% research and 20% teaching.*

*Position Description:* The University of Missouri (MU) invites applications for a 12-month tenure track Assistant/Associate Professor position in the area of Biomass Feedstock Molecular Physiology and Breeding. In order to make biofuels a sustainable and cost-effective alternative to fossil fuels, it is critical to develop non-food feedstock and tailor them to grow on marginal lands with low agronomic inputs and minimal environmental impacts. The new position will strengthen the existing expertise in the Department of Forestry and the Division of Plant Sciences in the areas of biomass feedstock production ecology, genetics, and physiology. This position is an integral part of University of Missouri’s Mizzou Advantage initiative on Sustainable Energy and the candidate is expected to operate as part of a campus-wide multi-disciplinary team focused on the development of bioenergy and advanced biobased products. This is a joint position between the Department of Forestry/School of Natural Resources and the Division of Plant Sciences in the College of Agriculture, Food and Natural Resources at MU.

**Assistant Professor of Forage Physiology**

*Position Description:* The Division of Plant Sciences, University of Missouri, invites applications for a tenure-track position in forage physiology. The position is for an Assistant Professor with a 12-month appointment - 60% research, 40% teaching. This position is located on the Columbia Campus.

*Responsibilities:* The successful candidate will be expected to establish an innovative, extramurally funded research program on the biology, development, and physiology of forage and bioenergy crops. Research should focus on the physiology of both cool and warm-season forage crops used for pasture and/or stored feed in the Midwestern USA. Emphasis should be placed on understanding the critical physiological components that lead to improved forage-livestock or bioenergy crop production systems. The candidate will be expected to explore collaborative opportunities with the Interdisciplinary Plant Group and teams of scientists working on pasture-based dairies, the forage-based beef industry, and conversion of biomass into fuel. Accessible to the candidate are excellent laboratory and field research facilities (both on and off-campus research centers) within the Missouri Agricultural Experiment Station network.

**Assistant Extension Professor of Weed Science**

*Position Description:* Assistant Extension Professor of Weed Science. This is a professional-track (non-tenure) position (100% extension) in the Division of Plant Sciences, College of Agriculture, Food and Natural Resources, University of Missouri. This position is located at the Fisher Delta Research Center (FDRC) near Portageville in Southeast Missouri.

*Responsibilities:* To develop and promote an applied extension program that includes appropriate applied research with an emphasis on weed management in cotton, rice, soybean, corn and other important field crops produced in the Missouri Delta region. To conduct applied research that complements the extension program.

**Research Assistant Professor of Entomology**

*Position Description:* Research Assistant Professor of Entomology. This is a Professional-track (non-tenure) position in the Division of Plant Sciences, College of Agriculture, Food and Natural Resources, University of Missouri. This position is located at the Fisher Delta Research Center (FDRC) near Portageville in Southeast Missouri.

*Responsibilities:* This position provides a unique opportunity to develop and implement a program in applied entomological research and outreach with an emphasis on cotton, rice, soybeans, corn and other important field crops produced in the Missouri Delta.

For full position descriptions visit [http://plantsci.missouri.edu/employment/](http://plantsci.missouri.edu/employment/)
2012 December Graduates

**Undergraduate Students**
Ryan Barnes, B.S., Breeding, Biology & Biotechnology
Joseph Bevilacqua, B.S., Breeding, Biology & Biotechnology
Joseph Bolte, B.S., Crop Management, Magna Cum Laude
Matthew Cunetto, B.S., Ornamental Plant Production and Operations Management
Carter Ferguson, B.S., Crop Management
Amy Lohmann, B.S., Horticultural Science & Design
Erik Meyer, B.S., Turfgrass Science
Brandon Nystrom, B.S., Crop Management
Charles Rockhold, B.S., Turfgrass Science
Joshua Stegall, B.S., Horticultural Science & Design

**Graduate Students**
Abigail Ferrieri, Ph.D., Plant Biology and Genetics
Sariful Md. Islam, Ph.D., Plant Breeding and Genetics
Mi Ha Le, Ph.D., Plant Microbiology and Pathology
Aaron Mbohgo, M.S., Entomology
Tran Hong Nha Nguyen, Ph.D., Plant Biology and Genetics
Enzhan Song, Ph.D., Crop, Soil, and Pest Management
Zhe Yan, Ph.D., Plant Microbiology and Pathology
Greg Yeckel, M.S., Plant Stress Biology

**Please Help us Out by Taking this Short, Online Weed Management Survey**

Your participation is requested in a 12-question online survey about herbicide-resistant weeds and the adoption of cultural weed management practices in the Midwest. There are very few sources for obtaining this information, and this information will help us direct our future programmatic efforts and weed recommendations in Missouri. The survey can be found at https://www.surveymonkey.com/s/59GJBCX. The results from this survey will be presented at a symposium at the Weed Science Society of America meetings and also online at http://weedscience.missouri.edu once we've had a chance to summarize all the information.

**New Weed ID App Available**

Called ID Weeds, the app has information on more than 400 plant species growing in crop fields, pastures, lawns, gardens or aquatic areas in Missouri and surrounding states.

**Equipment Check-Out**

As many of you already know the Division has a number of electronic devices available for check-out. At the Agriculture Building there are two laptops and two LCD projectors available. Please contact Gary Tyler to request these devices. In Waters Hall there are two additional LCD projectors and a PolyCom Soundstation (for TeleConferencing). Please contact Barb Worley or Mike Bent for check-out. Also in Waters are a video recorder and digital camera. Please contact Tonya Mueller or Kate Riley to check-out.

If any of these devices are unavailable you can also check out equipment from the MU libraries. Please see the following website for a list of available equipment.

http://mulibraries.missouri.edu/about/equipment.htm#checkout

There are iPad’s available for one week checkout from the library. You might consider checking out one of these devices for a try out before purchasing.

**New Addition to the Riley Family**

Plant Science staff members Eric and Kate Riley welcomed their second child December 13, 2012. Their daughter Norah Lynn Riley was born at University of Missouri’s Women and Children’s Hospital and weighed 7 lbs. 14 oz. and 19 3/4 inches long. Addison, 2, is the proud big sister.
KNOW YOUR COLLEAGUES:

Robert Sites

Robert Sites is a Professor of Entomology in the Division of Plant Sciences. He is a native of Illinois and earned his B.S. and M.A. from Southern Illinois University in Carbondale. He was hired as an Assistant Professor at Texas Tech University while he was in the last semester of his Ph.D. program at Washington State University. At TTU, he went up for tenure and promotion one year early while simultaneously applying for the job at Mizzou. He got both. He serves as Director of the Enns Entomology Museum, which now holds over 6 million specimens following a huge donation of aquatic insects from the Missouri Department of Conservation and subsequent NSF funding to accession it. Dr. Sites studies the systematics and ecology of aquatic insects with a taxonomic specialization in aquatic Heteroptera, particularly the family Naucoridae. He teaches Aquatic Entomology, Systematic Entomology, and Study Abroad - Thailand.

RESEARCH:
Research projects conducted in the Biosystematics lab largely address aspects of biodiversity in relation to various land use situations. Most of these projects are components of the graduate programs of M.S. and Ph.D. students and are funded by a variety of state and federal agencies. For example, community structure of aquatic insects is examined in relation to various environmental parameters including land use, elevation, and flooding (including the 2004 Indian Ocean tsunami). Systematic revisions of various taxa are published, while other projects focus on phylogenetic questions. For example, the evolutionary relationships of Naucoridae are being addressed and include both molecular and morphological attributes in the reconstruction of phylogenies. In addition, alpha taxonomic treatments include descriptions of many new species from Asia, Africa, and the Neotropics. Immature stages of paurometabolous and holometabolous orders also are being described to enable association of unknown immatures with described adults. Current doctoral students include Rachel Heth and Daniel Reynoso-Velasco.

ENNS ENTOMOLOGY MUSEUM:
The Enns Entomology Museum houses over 6 million specimens and is the largest university insect collection in the world. It serves as a repository for voucher specimens from projects of faculty, colleagues, and graduate students, and is used regularly by research and extension staff and faculty as a consultation resource for identifications and confirmations. It also serves in outreach as entomology’s interface with the public; tours are given by the collection manager to various groups including thousands of school children every year. Many visiting scientists come to the museum to examine specimens and loans of specimens are sent to colleagues worldwide.
STUDY ABROAD:
The Thailand Study Abroad Program has been running since 1999, but in the first few years it struggled to remain viable. In 2004, Dr. Sites completely changed the focus and delivery of the program to study biodiversity and conservation in the fall semester with the trip to Thailand over winter break. It immediately became wildly successful with triple the number of applicants as can be accommodated. In 2007, this award winning program was featured on the NBC Nightly News with Brian Williams. The latest group just returned from what was the best trip to date, with very close encounters with elephants and gibbons in the wild, clouded leopards at a captive breeding program, and giant manta rays while scuba diving during their coral reef conservation studies. See the blog at http://mizzouthailand2012-13.blogspot.com/.

BBC-AMERICA:
Early last year, a film company, BBC America, asked Dr. Sites for information concerning an aquatic insect that occurs in Southeast Asia. After multiple emails and phone calls, they invited him to join them as their on-site advisor while they filmed what they referred to as a documentary about the Giant Water Bug in Vietnam. The “documentary” was actually a travel adventure with an actor, Dominic Monaghan ("Lost," “Lord of the Rings”), searching for this insect during the network show “Wild Things with Dominic Monaghan”. After he arrived in Vietnam, Dr. Sites was informed that they wanted to weave him into the storyline of the episode; a meeting with Monaghan was staged in a market in Ho Chi Minh City and he later led Monaghan through the jungle at Cat Tien National Park to Crocodile Lake. The hour-long eight episode travel-adventure series follows Dominic as he explores the remote corners of the globe in search of some of the most interesting animals in the world. He'll educate the masses on their origins, their unique qualities and why we shouldn't be so quick to squash them on sight.

For more information about the show visit their website: http://www.bbcamerica.com/wild-things/about-the-show/
Adventures in Education event  
April 6 at Reynolds Alumni Center

Kids should not miss this highly popular Mizzou event! They can explore about 30 different activities like science, art, music, engineering, computers and animals! There’s something for everyone, so tell your friends! Adults should bring a camera to this wonderful event! Nearly 100 graduate students will be on hand to teach children about a variety of educational topics. While the activities are aimed at grades K-5, all children are welcome. The event will be held April 6, 2013 from 10 a.m. - 2 p.m. at the Reynolds Alumni Center - Columns Ballroom.

Soybean Biotechnology Symposium deadline

The 9th Annual Soybean Biotechnology will be held April, 10, 2013 at the Christopher S. Bond Life Sciences Center. This event is sponsored by the National Center for Soybean Biotechnology. Attendance at the symposium is FREE and open to the public but registration is REQUESTED and REQUIRED. (Registration is needed for headcount for receptions and name tags) Registration to the NCSB Symposium includes entry to all talks, morning reception, afternoon break, and closing reception.

Registration now open for IPG Symposium being held May 29-31

The 30th Annual Interdisciplinary Plant Group Symposium focusing on “Root Biology”, the third in a series of root biology symposia, will bring together researchers from across the globe to address recent advances in studies of root development and root interactions with the abiotic and biotic environment. The symposium will be held in the Christopher S. Bond Life Sciences Center May 29-31, 2013. Sessions will be arranged around four themes: Biotic Interactions, Development, Abiotic Stress, and Nutrition. For more information about the IPG Symposium visit, http://ipg.missouri.edu/symposium. Registration is now open.

First International Symposium on Elderberry to be held June 9–14

The First International Symposium on Elderberry (Sambucus), will be held at the Stoney Creek Inn, Columbia, Missouri, USA, June 9 – 14, 2013. This will be the world’s first gathering of international scientists from multiple disciplines studying all aspects of the elderberry plant and fruit, and its use as a food and dietary supplement. Horticulturists, botanists, biochemists, food scientists, economists, and others will gather in Missouri, USA during peak elderberry flowering season for several days of scientific exchange and fellowship.

UPCOMING EVENTS

<table>
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<tr>
<th>Event</th>
<th>Date</th>
<th>Location</th>
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<tr>
<td>Life Sciences Week</td>
<td>April 15-20, 2013</td>
<td>Columbia, MO</td>
<td><a href="http://lifesciencesweek.missouri.edu/">http://lifesciencesweek.missouri.edu/</a></td>
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<td>Bob White Quail Field Day</td>
<td>June 20, 2013</td>
<td>MU Bradford Research and Extension Center, Columbia, MO</td>
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## Recent Grants

<table>
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<tr>
<th>Investigators</th>
<th>Title</th>
<th>Sponsor</th>
<th>Amount of Funding</th>
<th>Dates</th>
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<tr>
<td>Bailey, W.</td>
<td>Distribution, Pest Status and Control Strategies for Redbanded Stink Bug, an Emerging Threat to U.S. Soybean Production</td>
<td>Louisiana State University</td>
<td>$25,000</td>
<td>01/01/2012-12/31/2012</td>
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<td>Bradley, K.</td>
<td>Development of Branded Educational Programs to Manage and Mitigate Herbicide-resistant Weeds</td>
<td>Purdue University</td>
<td>$30,000</td>
<td>10/01/2012-09/30/2013</td>
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<td>Fritschi, F.</td>
<td>Carbohydrate Dynamics in Cotton: Impacts on Early Vigor and Translation to Yield</td>
<td>Cotton Inc.</td>
<td>$9,885</td>
<td>01/01/2012-12/31/2012</td>
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<td>Jones, A.</td>
<td>Impact of Brix Level (sugar) Enhancers on Insects and Yield</td>
<td>Cotton Inc.</td>
<td>$14,000</td>
<td>01/01/2013-12/31/2013</td>
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<td>Jones, A.</td>
<td>Water Use Efficiency and the Effects of Furrow Irrigation Patterns on Plant and Root Growth, Shedding, Maturity, and Yield on Silt Loam and Sandy Loam Soils</td>
<td>Cotton Inc.</td>
<td>$30,000</td>
<td>01/01/2013-12/31/2013</td>
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<td>Kallenbach, R.</td>
<td>Regional Biomass Feedstock Partnership-Herbaceous Bioenergy Crop Field Trials</td>
<td>South Dakota State University</td>
<td>$15,000</td>
<td>11/16/2012-09/30/2013</td>
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<td>Miller, L.</td>
<td>Evaluation of new Syngenta products for disease control in warm season turfgrasses</td>
<td>Syngenta Crop Production</td>
<td>$11,000</td>
<td>10/01/2012-05/31/2013</td>
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<td>Nelson, K.</td>
<td>The Effects of G77 Nitrication Inhibitor on Corn Nitrogen Response (2012)</td>
<td>Koch Agronomic Services</td>
<td>$12,360</td>
<td>01/01/2012-12/01/2012</td>
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<td>Nguyen, H.</td>
<td>Large Scale Sequencing of Germplasm to Develop Genomic Resources for Soybean Improvement</td>
<td>United Soybean Board</td>
<td>$300,000</td>
<td>01/01/2013-12/31/2013</td>
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## Recent Grants

<table>
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<tr>
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<th>Amount of Funding</th>
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<tr>
<td>Nguyen, H.</td>
<td>Partial Resistance to Phytophthora sojae, Pythium sppl, and Fusarium sppl: Mechanisms, Markers, and Deployment</td>
<td>The Ohio State University</td>
<td>$143,047</td>
<td>01/01/2013-12/31/2013</td>
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<td>Remley, M.</td>
<td>Developing and Optimizing Nitrogen Application Recommendations to Enhance Chestnut Production</td>
<td>Missouri Department of Agriculture</td>
<td>$20,884</td>
<td>10/01/2012-12/31/2014</td>
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<td>Shannon, G.</td>
<td>Developing a Comprehensive Management Program for Folia Disease of Soybean</td>
<td>Southern Illinois University</td>
<td>$28,367</td>
<td>10/01/2012-09/30/2013</td>
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<td>Shannon, G.</td>
<td>Effect of Planting Date, Latitude and Environmental Factors on Choice of Maturity Group in Mid-South Soybean Production</td>
<td>University of Arkansas</td>
<td>$74,521</td>
<td>10/01/2011-09/30/2013</td>
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<td>Sharp, R.</td>
<td>Improvement of Drought Tolerance in Cotton-Understanding Root-Growth Responses to Water Deficit Stress</td>
<td>Cotton Incorporated</td>
<td>$50,000</td>
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<td>Smeda, R.</td>
<td>Monsanto Service Order #64</td>
<td>Monsanto</td>
<td>$14,087</td>
<td>06/01/2012-11/01/2012</td>
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<td>Smeda, R.</td>
<td>Management Solutions for Glyphosate-Resistant Pigweeds in Soybean Production Systems</td>
<td>University of Arkansas</td>
<td>$100,000</td>
<td>10/01/2012-09/30/2013</td>
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<td>Stevens, G.</td>
<td>Soil Health in Cotton Fields With Wheat, Rye, Clover, Canola, and Radish cover Crops</td>
<td>Cotton Incorporated</td>
<td>$13,900</td>
<td>01/01/2013-12/31/2013</td>
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<td>Stevens, G.</td>
<td>Tracking soil moisture levels for irrigation in cotton fields</td>
<td>Cotton Incorporated</td>
<td>$15,069</td>
<td>01/01/2013-12/31/2013</td>
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Recent Publications


Hamamouch N, Li C, Hewezi T, Baum TJ, Mitchum MG, Hussey RS, Vodkin LO, and Davis EL. The interaction of the novel 30C02 cyst nematode effector protein with a plant beta-1,3-endoglucanase may suppress host defence to promote parasitism. Journal of Experimental Botany 2012;63(10):3683-3696.


Recent Publications


