Continued advances in the number of undergraduate students in the program reflects the strong job market in Plant Sciences, major efforts directed toward recruiting in recent years, and the success of our graduates. I invite you to take a look at some of the very positive comments from recent alums on pages 7 and 8 of this edition of the Plant Sciences Quarterly. Fall 2013 undergraduate enrollment was 22% above the year before and we continue to see greater and greater student participation in our recruiting activities, suggesting that the upward trend will continue into the future. Graduates mentioned the quality advising they receive and the caring attitude of Plant Sciences instructors. Thanks to everyone who has had a role in furthering the success of our undergraduate and graduate programs.

I know you will also be pleased and impressed at the tremendous success Plant Sciences students, staff, and faculty achieved in the recent CAFNR Celebration of Excellence and other awards programs (pages 2 – 4). Examples from the COE program included Melissa Mitchum receiving the Outstanding Senior Teacher Award, Walter Gassmann receiving the Distinguished Researcher Award, Peter Scharf receiving the J.W. Burch State Specialist Award, Tonya Mueller receiving the Staff Recognition Award, and Bob Heinz receiving the Staff Recognition Award. Bob Sharp, Professor and Director of the IPG, has been elected Fellow of the American Society of Plant Biologists (ASPB) and will receive the award at the group’s annual meeting in Portland, Oregon, this summer. Plant, Insect, and Microbial Sciences graduate students Jeongmin Choi, Andres Rodriguez, Jessica Warwick, Daniel Reynoso-Velasco, and Tamra Reall were among those receiving scholarships or awards at the recent Plant Sciences Graduate Student Association Spring Banquet and Awards Ceremony. Also, one of our outstanding undergraduate majors, Kari Weis, received the Mizzou ‘39 Award, which is presented to 39 outstanding seniors each year for academic achievement, leadership and service to Mizzou and the community.

All of the success we are seeing in program enrollment, awards and scholarships, grants, publications, and the success of our alumni reflect the quality and special dedication Plant Sciences students, staff, and faculty put into their work. Congratulations.
Awards & Honors

Plant Sciences Faculty and Staff shine at CAFNR’s Celebration of Excellence Award Ceremony

Outstanding Senior Teacher Award
Melissa Mitchum has been with CAFNR for nine years. Her research seeks to establish the molecular basis of plant-nematode interactions, particularly between the cyst nematode and its host plant, the soybean.

“Melissa draws on a variety of teaching styles, such as the inclusion of live nematode samples placed at multiple stations around the classroom, videos of nematodes, and student teams to research specific subjects,” commented James Schoelz, director of MU graduate studies. “She has developed a nematode Jeopardy game that students play in class to review materials for tests. It is very effective for student retention of the lecture materials. It is fun, but it was also a powerful teaching tool.”

Distinguished Researcher Award
Walter Gassmann earned his Ph.D. in biology from the University of California, San Diego. His research studies how plants express resistance genes that, directly or indirectly, interact with effector proteins of pathogens and trigger a plant disease resistance response.

“In a set of truly remarkable experiments published in Science and The Plant Journal, Walter Gassmann showed that a transporter, named HKT1, mediates potassium and sodium transport,” noted Julian Schroeder, Co-Director for the Center for Food and Fuel for the 21st Century, University of California, San Diego. “These landmark studies opened up a new field that is now being pursued by many laboratories globally.”

J.W. Burch State Specialist Award
Peter Scharf’s research emphasis is the discovery of new knowledge to help farmers to manage nitrogen fertilizer better. This is primarily done through on-farm experiments and demonstrations — more than 400 total, so far.

“Peter has the most robust agronomic nitrogen management research and Extension program of any working agronomist/soil scientist in the United States,” commented Deanna Osmond, Professor and Department Extension leader, North Carolina State University. “When I have a question about nitrogen, I call Peter. In addition, Peter works with remote sensing to evaluate nitrogen losses and quantify nitrogen deficiencies. Understanding spatial patterns of nitrogen response over different years and growing seasons will be critical to developing better nitrogen application rates. Peter is a leader in this...”

Staff Recognition Award
Tonya has served in the Division of Plant Sciences since 2000. In her role, she manages the Division’s file and web servers, supervises the graphics lab, recommends and purchases computer equipment and software, develops and updates the division website, is the contact with the campus Department of IT on technology issues and policies, maintains email distribution lists, repairs computers and peripherals, manages the Division’s Desktop Enhancement funds, and fulfills other assigned duties.

“In an age when the productivity of faculty, staff, and students depends on reliable computing power, Tonya’s able support provides the platform for success in the Division of Plant Sciences and CAFNR,” noted Robert Kallenbach, Professor in the Division of Plant Sciences.

Staff Recognition Award
Robert (Bob) Heinz has worked for the University of Missouri for more than 34 years in nematology Extension, research and teaching missions. He began his career in 1979 as a Research Assistant working with Victor Dropkin, a nematologist in the former Department of Plant Pathology.

“Bob Heinz is one of the hardest working individuals you will ever meet,” noted Extension Turf Pathologist Lee Miller. “Not only is he hard working, but he takes great pride in his work and is committed to doing a quality job. He never turns down a job or a request for help, and he takes on these opportunities with enthusiasm.”
Nearly 70 faculty and graduate students filled the Memorial Union’s Benton-Bingham Ballroom for the Division of Plant Sciences Graduate Student Association (DPS GSA) Spring Banquet on April 23rd. The lunchtime event, now in its fourth year, offers a casual setting for students and faculty to break bread and celebrate the many achievements of our graduate community.

DPS Director Dr. Mike Collins opened the banquet and was joined by Dr. Jim Schoelz, director of graduate studies, in praise of the effort and special dedication shown by both students and their faculty advisors. Emceeing the event were the 2013/2014 DPS GSA officers: Co-Presidents Benjamin Spears and Morgan Halane, Vice President David Chappell, and Secretary-Treasurer Rachel Heth.

In addition to lunch catered by Jack’s Gourmet, attendees were treated to a year-in-review slideshow, Plant Science trivia contest, and the conferment of several graduate student awards:

**The Daniel Millikan Award for Outstanding Research in Plant-Microbe Interactions:** Andres Rodriguez. This award recognizes the accomplishments of a masters or doctoral student in the area of plant-microbe interactions.

**The Division of Plant Sciences Award for Research in Plant Biology:** Jeongmin Choi. This award recognizes the accomplishments of a masters or doctoral student in any area of plant biology.

**Leonard and Elosia Haseman Memorial Scholarship Award in Entomology:** Lauren Diepenbock. This annual award recognizes an outstanding entomology doctoral student based on scholarship and professional activities.

**The Lloyd E. Adams and E.P. Meiner's Doctoral Scholarship in Entomology:** Jessica Warwick. This award is available to an entomology doctoral graduate student and it is intended to improve the quality of the program’s doctoral students and their dissertations, and to enhance their professional credentials.

**The Fred Clute Memorial Scholarship in Entomology:** Tamra Reall. This award is available to an entomology master’s or doctoral student who has demonstrated excellence in an area of pest management in their research and outreach activities, both in agricultural and urban settings.

**Philip C. and Ruth E. Stone Scholarship in Entomology:** Emily Chen. This annual award recognizes an outstanding entomology master’s graduate student based on scholarship and professional activities.

**Thomas R. Yonke Biodiversity Fellowship:** Daniel Reynoso-Velasco. This award is for master’s or doctoral students with a scholarly experience in insect biodiversity.

**Weis Awarded Mizzou ‘39 Award**

Kari Weis is double-majoring in agricultural journalism and plant sciences with a minor in business. She is looking for a position that allows her to combine her passions and knowledge of plants and agricultural journalism.

Weis is a member of Sigma Alpha, Mizzou Agricultural Communicators of Tomorrow, Student Development Board, and is a media lab specialist for CAFNR Department of Educational Technologies.

“Mizzou ’39 is awarded to 39 outstanding seniors based on their academic achievement, leadership and service to Mizzou and the community,” Weis said. “Throughout my time here, I have strived to give back to Mizzou just as the school has opened the doors to countless opportunities for me, while still balancing the double major. The award culminates my five years at Mizzou and is one of the highest honors an undergraduate can receive.”
Awards & Honors

Plant Sciences Graduate Student Association Spring Banquet and Award Ceremony

The elections for officers of the Division of Plant Sciences Graduate Student Association for the 2014-15 academic year have concluded. Congratulations to all of the incoming officers.

President: Avinash Karn
Vice President: Kathryn Ingerslew
Secretary/Treasurer: Zixiao Zhao
GPC Representative: Kara Riggs
GERC Representative: Jessica Warwick
DPS Seminar Student Member: Rachel Heth

I would like to extend special thanks to the outgoing officers: Benjamin Spears, David Chappell, Rachel Heth, Hallie Thompson, Zixiao Zhao, Jessica Warwick, and John Smith for all of their hard work in making this a productive year for the GSA; Jim Schoelz, Christa Smith, and Nathan Treloar for their help and guidance in the continued success of the organization, and also all of the DPS GSA members whose participation have kept our group moving forward.

Morgan Halane, DPS GSA Co-President

Robert Sharp elected ASPB Fellow

Bob Sharp, Professor in the Division of Plant Sciences and Director of the Interdisciplinary Plant Group, has been elected a Fellow of the American Society of Plant Biologists (ASPB). He will receive the award at the ASPB annual meeting to be held in Portland, Oregon, in July.

The Fellow of ASPB award is granted in recognition of distinguished and long-term contributions to plant biology and service to the Society by current members in areas that include research, education, mentoring, outreach, and professional and public service. The Fellow of ASPB honor may be granted to no more than 0.2% of the current membership each year. Dr. Sharp is recognized for his outstanding contributions to plant biology in the field of root biology as it relates to growth under water deficit conditions and his service to ASPB.

Kara Riggs Places First

Kara Riggs, doctoral student in Bob Sharp’s lab, won first place for her oral presentation in the Biological Sciences category of the of the Graduate Professional Council’s Annual Research and Creative Activities Forum (RCAF) on March 8th. She received a prize of $200.
Windows XP
Support has officially ended for Microsoft Windows XP and Microsoft Office 2003. I feel as though Gary Tyler and I were successful in replacing or removing Division of Plant Sciences computers running Windows XP from the University network by the April 8, 2014 deadline.

Since the April deadline some new security threats have been discovered that will effect Windows XP computers. Since Microsoft is no longer releasing security patches for Windows XP these systems remain vulnerable. The increased security risk posed by this unprotected operating system could create a problem for the entire University network. Because of this, the University Division of Information Technology (DoIT) has decided to block Windows XP machines from the University network beginning June 1, 2014.

Inside Plant Sciences
Did you know we have a website just for the faculty, staff and students of Plant Sciences? Please visit http://plantscionly.missouri.edu and explore to find things just for those who work in the Division of Plant Sciences (DPS). Things you might locate include:

• High quality DPS logos to use on posters and other print materials.
• Division announcements and the Weekly Announcement submission form.
• Various DPS Policies and Procedures including the By-Laws.
• Room reservation calendars and room request form.
• Awards listing by deadline submission date.
• Commonly used forms.

Phishing Scams

What are Phishing Scams?
Phishing scams are a form of Internet fraud. This high-tech scam uses spam or pop-up messages to trick users into disclosing credit card numbers, bank account information, Social Security number or other confidential information.

Follow these best practices to prevent getting snagged!
1. Turn on your firewall and use anti-virus software. Anti-virus software and web browsers periodically offer updates, which contain security patches, so these items need to be updated regularly. Also, make sure your operating system and applications are up to date.
2. Never email sensitive information. Email is not a secure method for transmitting or saving sensitive information such as passwords, financial information, social security numbers etc.
3. Limit your web browsing to well-known and trusted websites and use encryption. Use SSL encryption (https://) for web browsing when possible. If you initiate a transaction, look for a secure SSL encryption as well as indicators that the site is secure for transmissions, such as the padlock symbol.
4. Be suspicious of email. Beware of email requiring immediate attention and demanding personal information or account information. Other suspicious indicators include spelling/grammatical mistakes, an overall generic tone, and an ambiguous website link.
5. Do not click on direct links. Avoid clicking on direct links provided in an email. If you get an email from a known source, such as your bank or a store, then type their web address directly into your browser.
6. Verify your URLs. If you are unsure of the exact destination site and have been directed to a site which appears unfamiliar to you, use a search engine to look up the company.
7. Do not open attachments from unknown sources. Attachments can contain viruses that allow cyber attackers to gain control of your computer system. If they gain access to your email directory or social media networks they can send malicious emails on your behalf.

For full phishing article: http://makeitsafe.missouri.edu/
John Lory Coordinates Workshop

The Heartland Animal Manure Management Workshop was held April 22-23 at the Stoney Creek Lodge in St. Joseph, MO.

The 60 attendees, by invitation, included regulators, agency personnel, land grant faculty and industry representatives. The workshop is an Extension collaboration between the University of Missouri, Iowa State University, Kansas State University, the University of Nebraska-Lincoln, the USDA National Institute of Food and Agriculture’s National Water Program, and US EPA Region 7. John Lory serves as one of the four coordinators for the meeting (one each from MO, IA, KS and NE).

Meet Your Extension Specialist, Jill Scheidt

Jill Scheidt graduated from Greenfield High School and obtained her BS and Master of Natural and Applied Science (with an emphasis in Agronomy) from Missouri State University in Springfield.

Jill has been in the Barton County Extension office for 2 years, 6 months was accumulated during an internship with Extension, where she decided this was the career she had to pursue. Her previous experience includes Crop Consultant with NeCo Seed in Garden City, MO and Crop Consultant with Servi Tech in Hill City, KS area. Her most successful program in Barton County is the Crop Scouting Program, where she scouts crop fields and sends a weekly report via phone to alert producers of findings.

Jill lives in Dade County and has a farm in where she and her husband are growing row crops and plan to return the land to pasture in a few years. In her spare time, Jill likes to work outside and run; she has completed 4 marathons, 3 half marathons and several 10k and 5k races.

New Division Staff Member, Stacey Franks

Stacey Franks joined the Division of Plant Sciences technical support team on March 17, 2014.

Her primary duties are to create and update the division websites, ensuring that they meet ADA, MU and CAFNR web standards and guidelines. Stacey will also maintain the IPM website and create mobile sites as needed.

Stacey comes to Plant Sciences from Kansas State University, where she worked with the web services team.

Building Plant Sciences

for more information visit the project website:

http://BuildingPlantSciences.missouri.edu
Anton J. Novacky graduated from the Comenius University in Bratislava, Czechoslovakia, in 1956. He was appointed to the Institute of Experimental Phytopathology and Entomology, Bratislava. He received his Ph.D. degree from the Czechoslovak Academy of Science in Prague in 1965.

With the invasion of his homeland by the Soviet Union in August of 1968, Anton and his family fled Bratislava and sought asylum in the United States. He returned to the laboratory of Harry Wheeler at the University of Kentucky where he had previously worked as a Post Doctoral Fellow. In July, 1969, Novacky joined the Department of Plant Pathology at the University of Missouri-Columbia as a Postdoctoral Fellow with R. N. Goodman. He was appointed Assistant Professor in 1970, Associate Professor in 1974, and Professor in 1982.

Novacky concentrated his research on phytobacteriological problems. His initial research on the hypersensitive defense reaction (HR) revealed that the phenomenon could be expressed by one plant cell in response to a single bacterium. Seeking increasingly more sensitive procedures to monitor membrane perturbations during HR, Novacky designed and built his own equipment to measure membrane electropotential changes in single cells of higher plants.

Novacky's research earned him many invitations to international symposia and workshops. In 1983 he received the illustrious Alexander von Humboldt Senior U.S. Scientist Award from the Federal Republic of Germany. In 1984 he was invited by the Japanese Society for the Promotion of Science to spend three months at prominent Japanese universities. In 1986 he was elected fellow to the American Phytopathological Society. In 1993 Anton was selected for a Fulbright Senior Scholar Award in the Czech Republic. He spent the 1993-94 academic year teaching undergraduate and graduate courses at the Comenius University, Bratislava, Slovakia. In addition to teaching, he gave several research seminars while abroad.

Anton is described as kind, generous and hospitable. When new graduate students and post-docs came to work with him at the University of Missouri they would stay with the Novacky family until they could find a place of their own.

Novacky retired from the University of Missouri in 1998 and was unanimously voted in as an Emeritus faculty member. Following retirement he spent half his time in the United States and the other half in Slovakia. On his visits back to the US he enjoyed visiting old colleagues, friends and family.

Anton passed away at the age of 80 on May 13, 2014. He was buried in the Novacky family burial plot in Prievidza, Slovakia.

Some content supplied by: asp.net
Reflections from New Alums

That short walk across the stage is by no means the last leg of a graduate’s journey, but for most, it will be the last of their days in a classroom (at least without being paid for it). A few, like Cody Cornelius, Jaime Farmer, Dalton Ludwick, and Dustin Wilkerson, are opting to keep professors and papers in their lives a little longer as they pursue an advanced degree in Plant Sciences. These four new alum all grew up in small Missouri towns and experienced agriculture early in life. But despite their similar backgrounds, each took their own path to MU and made their years here unique.

Cody Cornelius grew up on a dairy farm near St. Joseph, MO. His family also raised row crops, mainly alfalfa, and he credits the management intensive crop as the catalyst for his interest in Plant Sciences. He was impressed with the facilities he toured during a visit to MU, but was ultimately convinced to attend by the energy and genuineness of the undergraduate advisors and CAFNR career services staff he met. Cody, like most high schoolers, had heard tales of how mean college professors were. Finding the opposite to be true was a big, and pleasant, surprise. “The faculty was easy to work with; they desire for you to succeed as long as you put in the effort.”

Cody said the duality of small size/big impact is what makes Plant Sciences at Mizzou special. Sharing the same courses over the years made him and his classmates a tight knit group that could have as much fun studying in the PSU resource room as anywhere. On the flip side, the opportunities to do research and find work experience through internships were plentiful. “Visit your advisor as soon as you get here and visit often,” is Cody’s first piece of advice to new students. Finding the CAFNR career services office is his second. “It’s their job to help you find one, and they’re good at what they do.” He will begin work towards his Master’s this summer, also under Associate Professor Kevin Bradley.

Jaime Farmer visited campus as a participant in the Missouri Scholars Academy his junior year of high school and loved it. His family farmed row crops along with a cow/calf operation in northeast Missouri, so sitting at a desk all day was not the future he wanted. Jaime saw lots of scholarship opportunities in CAFNR (along with many friends) and chose Plant Science with an emphasis in crop management for the opportunities to work outdoors and put his experience on the farm to work.

Midway through his studies, Jaime was deployed with his National Guard unit to Afghanistan for a nine-month tour. He says his biggest challenge was when he reenrolled a year later. Most of his friends had since graduated so Jaime drew upon the, “great community of students and faculty” at Plant Sciences to readjust and complete his degree. The advice Jaime would give future students is no surprise given his background: “Getting real world experience is almost, if not more important than classroom education.” Jaime will be working with Associate Professor Kevin Bradley in weed science as he pursues his Master’s degree.
Reflections from new alums

Dalton Ludwick was the first in his family to go to college, a consideration of Mizzou’s Flagship Scholars program which aims to provide access to Missouri’s ‘flagship’ university with four-year scholarships in every county of the state. He won the award for Marion County and eventually chose to major in Plant Sciences over Architecture; “I wanted to impact agriculture because it was such a part of my community and family history.” Dalton was active in the Students of Agronomy, Soils, and Environmental Sciences (SASES) Quiz Bowl and was an alternate for the Entomological Society of America’s (ESA) Linnaean Games competition. He interned for Pioneer at facilities in Miami, MO and Champagne, IL and wants to someday work for a company making products that directly benefit farmers. This summer, Dalton will begin work on his PhD (Entomology) and will also do a little more walking…not across a stage this time, but down the aisle! Dalton would encourage new students to stay focused while getting some required courses out of the way early; “A class may seem like it’s unrelated to your goals but it can be interesting and useful in other ways.”

Between growing up less than an hour from Columbia and his mother being an alumnus, it’s easy to understand why Dustin Wilkerson says he has always bled black and gold. He knew early on that MU was the place for him. His high school physics teacher also knew this and was able to connect Dustin with the lab of a DPS faculty member. While he didn’t grow up on a farm, he was active in 4-H and FFA. Dustin brought this spirit for involvement with him to MU joining the Agronomy Club and other campus-wide organizations.

At the national level, Dustin was involved with the American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America (ASA/CSSA/SSSA) and was named a Golden Opportunity Scholar, a highly competitive program that encourages talented students to study agronomy, crop and soil sciences while cultivating networks. That cultivation has paid off for Dustin who has interned with MFA Agriservices, DuPont Pioneer, and Monsanto. His advice for future students reflects his own path: “Get out there and diversify.” Dustin has applied to several graduate schools and is planning to begin work towards his Master’s degree next year.
**events & activities**

**field days**

**Bobwhite Quail & Native Pollinator**  
June 19, 2014 - Bradford Research & Extension Center

**IPM/Weed**  
July 16, 2014 - Bradford Research & Extension Center

**Farmer Technology Field Day**  
July 17, 2014 - Bradford Research & Extension Center

**Crop Injury & Diagnostic Clinic**  
July 29-30, 2014 - Bradford Research & Extension Center

**Turfgrass and Ornamental**  
July 22, 2014 - South Farms, Columbia, MO

**Organic Field Day**  
August 1, 2014 - Bradford Research & Extension Center

**Soil Health Expo**  
August 14, 2014 - Bradford Research & Extension Center

**Hundley-Whaley Research Center**  
August 27th - Albany, MO

**Greenley Center**  
August 5, 2014 - Novelty, MO

**Tomato Festival**  
September 4, 2014 - Bradford Research & Extension Center

**Fisher Delta Research Center**  
September 2, 2014 - Portageville, MO

**Forage Systems Research Center**  
September 25, 2013 - Linneus, MO

**upcoming meetings:**

**American Society for Horticultural Science**  
July 28-31, 2014  
http://www.ashs.org/  
Orlando, Florida

**American Society of Plant Biologists**  
July 12-16, 2014  
http://my.aspb.org/page/Oregon2014  
Portland, Oregon

**ESA 98th Annual Meeting**  
August 10-15, 2014  
http://esa.org/am/

The annual **IPM/Weed Field Day** will be held at the Bradford Research and Extension Center on July 16, 2014. This event provides an opportunity for farmers, agricultural retailers, crop consultants, and others to view thousands of research plots pertaining to the management of weeds, insects, and diseases in corn and soybeans.

The annual **Turfgrass and Ornamental Field Day** will be held July 22, 2014 at the University of Missouri South Farms. The field day will demonstrate the latest in MU research and basic information surrounding the green industry, including horticulture, urban forestry, and turfgrass science.

The annual **Crop Injury and Diagnostic Clinic** will be held July 29-30, 2014 at the Bradford Research and Extension Center. This clinic is designed to train or update agricultural professionals in the management of crop health and field crop diagnostics. Participants will have the opportunity to fine tune their skills in diagnosing crop production and pest problems.

The Bradford Research and Extension Center will host the **Bradford Tomato Festival** from 4-7 p.m. on Sept 5, 2014. Each year they grow over 100 different kinds of tomatoes that include popular garden types and the old varieties that our grandparents grew (heirlooms). Open and free to the public. To learn more visit http://aes.missouri.edu/bradford/events/tomato-festival.php
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<td>Nested Association Mapping (NAM) of Genes Controlling Soybean Yield and Other Key Traits</td>
<td>University of Illinois-Urbana-Champaign</td>
<td>$15,000</td>
<td>10/01/2013-09/30/2014</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>$60,226</td>
<td>01/01/2014-12/31/2014</td>
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<td>Shannon, G.</td>
<td>Increasing Soybean Yield with Exotic Germplasm</td>
<td>Agricultural Research Service</td>
<td>$42,280</td>
<td>01/01/2014-11/30/2014</td>
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<td>Shannon, G., Wiebold, W., Fritsche, F.</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>$113,639</td>
<td>10/01/2013-09/30/2014</td>
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<td>Song, Q.</td>
<td>Action Plan for Bioassays on Three Field-collected Southwestern Corn Borer Populations Supplied by Pioneer</td>
<td>Pioneer</td>
<td>$18,232</td>
<td>12/01/2002-12/01/2015</td>
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<td>Stevens, G.</td>
<td>Effects of the Introduction of Feed Grains into Mid-South Soybean Production Systems</td>
<td>Mississippi State University</td>
<td>$20,800</td>
<td>10/01/2013-09/30/2014</td>
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<td>Xiong, X., Smeda, R.</td>
<td>Developing and Establishing a New Method to Improve Cold-tolerant Bermudagrass Breeding</td>
<td>United States Golf Association</td>
<td>$30,000</td>
<td>03/01/2014-12/31/2016</td>
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### Recent Grants

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<tr>
<th>Grants Information</th>
<th>Funding Agency</th>
<th>Amount</th>
<th>Start Date</th>
<th>End Date</th>
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<td>Zhang, Z.</td>
<td>Iowa State University</td>
<td>$183,019</td>
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<td>Climate Change, Mitigation, and Adaptation in Corn Based Cropping Systems</td>
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<td>Scharf, P.</td>
<td>DOW Agrosciences</td>
<td>$38,400</td>
<td>03/01/2013</td>
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<td>Plant perception of insect herbivores includes leaf vibrations caused by chewing</td>
<td>National Science Foundation</td>
<td>$390,000</td>
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<td>BASF Corporation</td>
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<td>Heiser, J. Test Services</td>
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<td>Jones, A. Monsanto Service Order #15</td>
<td>Monsanto</td>
<td>$6,760</td>
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<td>Jones, A. Testing Agreement</td>
<td>Americot</td>
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<td>Stevens, G. Test Services</td>
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<td>National Turfgrass</td>
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<td>National Zoysiagrass Ancillary Test</td>
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