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Much More....

A&M Presence in Washington D.C.
See article on page 7
Big thanks to Amanda Ray and team for a great Harvest Festival! It is always nice to get together with our whole department to enjoy good food and even a little dancing. We will soon be celebrating our United Way Drive with a Chili Cookoff and drawing the winners of the gift baskets. Get your tickets early for both. Thanks to Kathleen Peacock, Alisa Hairston and Barbara Childress for making this happen.

The department has several task force projects going including communications, where we have been a part of the A&M Fearless advertising campaign (see photos on the cover and inside of a DC Metro station). We also are reviewing our graduate curriculum and preparing it to meet future needs. Cristine Morgan is leading a task force on Departmental Climate as well as a College venture into Soil Security. Also at the College level, Dr. Thomson is leading new efforts to expand our gene editing capacity as augmented by increased efforts in plant transformation by Dr. Keerti Rathore and Dr. Marty Dickman.

A big thanks to Dr. Sam Feagley for his efforts to lead our awards nomination process. We recently had several deserving individuals nominated for Vice Chancellors awards and he is now leading the nominations and review for Departmental Awards. See other articles for Deans Award news.

Congratulations to the Soil Judging Team led by Dr. Cristine Morgan which recently placed first. The weeds team, crops team and turf quiz bowl team are gearing up to match this performance. Our Turf Club and Agronomy Society are extremely active. The corn maze will be opening soon. The graduate students are organizing for several activities as well. It is easy to see we have a very active student program producing the leaders of the future.

We have had several opportunities to meet with our stakeholders and develop new corporate partnerships over the past month including the Surface Mine Reclamation workshop, Texas Society for Range Management, Bennet Trust Program, as well as meetings with Mahindra, Monsanto, Bayer, Cotton Inc., and others. As this newsletter goes to press I will be participating in the World Food Prize and Borlaug Dialogue. Dr. Ed Runge was able to represent us at the CIMMYT 50-year celebration. We continue to benefit from this close collaborative effort initiated by Dr. Borlaug.

Comments from our Department Head

Dr. David Baltensperger
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Several Soil and Crop Sciences faculty members were recognized last month at the 2016 College of Agriculture and Life Sciences Awards Ceremony. Dr. Sakiko Okumoto was recognized as a new faculty member for the department, and four professors, Drs. Russell Jessup, Shuyu Liu, Lee Tarpley and Ben Wherley received promotions. Dr. William Rooney received the Dean's Outstanding Achievement Award for Research for 2016.

Dr. Russell Jessup has been promoted from Assistant professor to Associate Professor with tenure. Dr. Jessup was a Research Associate at TAMU from 2002 - 2005, while earning his PhD in Plant Breeding. He joined the faculty as an Assistant Professor in 2009. Jessup's research focuses on perennial grass breeding, and he teaches SCSC 302, Recreational Turf, and SCSC 640, Intellectual Property in Plant Science.

Dr. Shuyu Liu has been promoted from Assistant Professor to Associate Professor. Dr. Liu is a small grain geneticist at the AgriLife Research and Extension Center in Amarillo. His research focuses on important traits of wheat in the U.S. Great Plains. Liu joined the TAMU faculty in 2010.

Dr. Lee Tarpley has been promoted from Associate Professor to Professor. Dr. Tarpley is stationed at the AgriLife Research and Extension Center in Beaumont, where his research is focused on whole plant physiology. Tarpley worked for A&M as a Research Associate and Postdoctoral Researcher from 1993 until 1997. After spending five years at Mississippi State University, he returned to join the A&M faculty as an Assistant Professor in 2001.

Dr. Ben Wherley has been promoted from Assistant Professor to Associate Professor with tenure. Dr. Wherley joined Texas A&M AgriLife as an Assistant Research Scientist at the Urban Solutions Center in Dallas in 2009. He came to College Station as an Assistant Professor in 2011. Wherley's research focuses on turfgrass mangement and physiology. He teaches SCSC 428, Advanced Turfgrass Ecology & Physiology; SCSC 489, Professional Development in Turgrass Science; SCSC 427, Sports Field Construction; and he oversees undergraduate research projects - SCSC 491.
Dr. William Rooney received the Dean’s Outstanding Achievement Award from Dr. Mark Hussey at the College of Agriculture and Life Sciences Department awards ceremony in September.

Dr. Rooney joined the TAMU faculty as an Assistant Professor in 1995, and worked his way to Professor in 2005.

His research focuses on plant breeding and genetics, specifically in sorghum, aimed at enhancing the productivity and profitability of grain, forage and bioenergy sorghum production systems.

Dr. Rooney holds four patents, either solely or in conjunction with other researchers, and has been named a CSSA Fellow; a Faculty Fellow by AgriLife Research and has won numerous other awards.

Congratulations to you all!!

Thank you for your service and dedication!

Dr. Hamid Shahandeh Retires (again)

Dr. Hamid Shahandeh retired from Texas A&M AgriLife Research and the Soil and Crop Sciences Department September 15, with little fuss or fanfare.

Hamid had first retired in 2012 after more than 22 years of service to the department, but returned in 2014 as a Research Scientist to assist Dr. Frank Hons with additional bioenergy projects.

Dr. Shahandeh received his PhD in Soil Chemistry/Fertility from the University of Georgia in 1985 and was a postdoc there from 1989-1990. He began working at TAMU in 1990 as Assistant Research Scientist under the direction of Dr. Lloyd Hossner, Soil Chemist. He worked primarily on soil phosphorus and land reclamation issues.

Upon Dr. Hossner’s retirement in 2002, Dr. Shahandeh began working with Dr. Frank Hons. He was a member of Hons’ Soil Fertility/Soil Chemistry research group and continued his land reclamation research, but also worked in international agriculture, precision agriculture, soil carbon sequestration, and bioenergy. His work during this time included revegetation of the largest USEPA Superfund site.

Dr. Shehandeh and his family will continue to live in College Station.
USDA’s Agriculture Research Service Honors Scientists of the Year

USDA Agricultural Research Service (ARS) scientist E. John Sadler has been selected as the agency’s Distinguished Senior Research Scientist of the Year for 2016. He was one of several researchers honored for their scientific achievements September 7 in Beltsville, Maryland.

Sadler’s award states that he was honored “For outstanding leadership and research accomplishments focused on conservation of soil and water resources and delivering ARS data to the US public.”

His conservation research includes the use of new technologies to achieve innovative agricultural practices. Sadler helped lead the team that developed the online STEWARDS database for ARS watershed data. He was an early contributor to the field of precision agriculture, including variable-rate irrigation system design and operation. His understanding of irrigation practices and soil-plant-water relationships has advanced our understanding of how weather patterns, climate change and soil profiles affect crop productivity.

Sadler came to Texas A&M University to pursue advanced degrees after completing his undergraduate work at the University of Missouri. Under the supervision of Dr. C.H.M. Bavel, he earned his Master of Science in Agronomy in 1978, and his Ph.D. in Agronomy in 1983.

After earning his Ph.D., Sadler joined USDA-ARS as a soil scientist at the Coastal Plains Soil & Water Conservation Research Center in Florence, South Carolina.

In 2003 he took his current position as Research Leader/Soil Scientist in the Cropping Systems and Water Quality Research Unit at the University of Missouri in Columbia, Missouri.

Sadler was selected as Fellow of the American Society of Agronomy in 1997, the American Association for the Advancement of Science in 2003, and the Soil Science Society of America in 2010. In 2011 Sadler, Dr. Jean Steiner, El Reno, OK, and Dr. Jerry Hatfield, Ames, IA received the Conservation Research Award from the Soil and Water Conservation Society for developing the ARS watershed database - STEWARDS.

The USDA also recognized John J. Burke during the meeting in Beltsville. Burke, a plant physiologist at the Cropping Systems Research Laboratory in Lubbock, was one of four Area Senior Research Scientists named at that ceremony.

Burke has a close affiliation with the Texas A&M AgriLife Research and Extension Center at Lubbock.

There is still time to support the Charity Drive by purchasing your tickets for the Game Day Basket or the Movie Night Basket

Drawing Postponed until the Chili Cook-off October 28

Purchase your tickets from
Alisa Hairston - Room 350 or Kathleen Peacock - Room 434
Omni Hotels & Resorts today announced Scott Abernathy, a 20-year veteran of the golf industry, has been named corporate director of agronomy for its prestigious collection of golf courses nationwide. In this new role, Abernethy will supervise golf course maintenance and turfgrass management at all 12 Omni Golf resorts.

“Scott’s expertise and previous success with operations at world-class golf courses expands the organization’s dedication to golf,” said Jon Hunter, vice president of Omni Hotels & Resorts. “His ability to implement strategic agronomic programs throughout the Omni Golf collection is essential to the quality standards and guest expectations at each of our golf resorts and his knowledge is essential in helping us further the Omni Golf brand.”

Abernathy joins the Omni family from Four Seasons Resort and Club Dallas at Las Colinas where he has served as the director of golf operations and landscaping since 2012. In this role, he directed operations for the 400-acre property that included the Tournament Players Course – host of the PGA TOUR's AT&T Byron Nelson – and Cottonwood Valley Course, leading a team of more than 50 associates including superintendents, landscape and equipment managers, and line staff.

During his 17-year tenure in the agronomy industry, Abernathy has held several notable positions including golf course consultant for Centerline Solutions Inc., golf course manager at Four Seasons Las Colinas, and assistant superintendent at Bent Tree Country Club.

Abernathy attended Texas A&M University where he earned a bachelor’s degree in biomedical sciences in ’95, his Master of Science in Agronomy in ’99 and his Ph.D. in agronomy in 2014. While at A&M, Abernathy was recognized for his intellectual achievements, receiving the R.C. Potts Fellowship, the G.O. Mott Meritorious Graduate Student Award, and the Tom Slick Graduate Research Fellowship.

He has a diverse background that includes the design and development of golf course management software, as well as turfgrass research and water management education as an instructor at Texas A&M. During his career Abernathy also has managed a wide range of golf course renovation and construction projects, from tees to greens, bunkering and erosion control.

Scott Abernathy ’95, earned his Master of Science in Agronomy under Dr. Richard White and his Ph.D. under Drs. White and Scott Finlayson.
Howdy from Washington D.C.!

I am currently taking a year of Faculty Development Leave (which is very similar to what was historically referred to as a faculty ‘sabbatical’) to serve as the Senior Advisor for Agricultural Systems in the Office of the Chief Scientist at the United States Department of Agriculture (OCS). I arrived at the end of August and I think I have learned more in the last few weeks than I had in the last five years as a faculty member; primarily about how government operates and about current initiatives at the federal level and across the country. I am also reminded of the disorientation of being the new person and having to start from scratch, a perspective incoming students, staff and faculty will be very familiar with and one I recommend everyone remind themselves of occasionally!

A lot of you wondered why I was coming here, and the reasons are numerous and complicated. The main professional reasons are that I do not think there is enough support for public agricultural research (e.g. funding, public knowledge), and also I see a huge deficit of opportunities and research to address longer-term applied agricultural issues that could benefit society. As a public servant I felt the need to try to (learn how to) address these issues. I want to learn how we can develop more sustainable (economic and environmental) agricultural systems such as perennial polyculture grain systems. A 30-year project that involves nearly every facet of agriculture takes a lot of coordination, how can that be supported at the federal level?

On a personal level, my wife and I needed to get out of our routines and challenge ourselves with something completely different; plus I had an unmet love of Ethiopian, Indian and Thai food, public transportation and the occasional snow. We can still get outstanding Texas BBQ and Kreuz jalapeno cheese sausage at Hill Country Restaurant here in D.C.

My role here is just starting to evolve so it is still difficult to say exactly what I will be doing and each day has been very different. The senior advisors (six were authorized by congress and the Secretary of Agriculture, from Animal Health to Renewable Energy) are tasked with developing portfolios of projects that support the Chief Scientist and that are not addressed by other Research Education and Extension (REE) agencies that the Chief Scientist oversees (USDA: ARS, ERS, NASS, and NIFA) and across USDA.

Four large projects recently coordinated out of OCS by its advisors are [1] Global Open Data for Agriculture and Nutrition (GODAN) GODAN is attempting to gain commitment of world governments, in coordination with the UN, to open up their agricultural data to the public for better decision making; [2] Antimicrobial resistance, working on coordinating between different federal and USDA agencies with different perspectives, developing legislation and participating in global activities is a full-time job for one OCS advisor; [3] Coordinating USDA’s Zika strategy, which is self-explanatory and also a full-time job; and [4] evolving USDA’s public-private partnerships in agriculture, which involves coordinating face to face meetings and reports across diverse stakeholders.

Thus far, my first official responsibilities have emerged as being the executive secretary of two Goal Teams for the annual REE report; and participating in the Group on Earth Observations Global Agricultural Monitoring (US GEOGLAM), which provides satellite based yield estimates of major crops throughout the world for early warning of food insecurity. I have also discussed and proposed to host a listening session on the long-
term future of agriculture, but it is too early to say if this will make it up the administrative chain.

As I mentioned, I have learned many things. One major thing I have learned is the many legitimate reasons that Federal government is by necessity bureaucratic, hierarchical, and often slow; certainly not as “flat” or open as the academia most of us know (although we can be pretty slow too). This has a lot to do with Federal regulatory authorities, efforts to avoid contradictory messages, and the need to involve many different agencies and stakeholders. Thus, staff report up through their supervisor and this continues up layers of career positions and then up through to the appointed positions authorized to make large decisions and commitments. Each layer is bombarded by reports from many people and by many issues, so only the highest priorities make it to the end.

Given the upcoming U.S. presidential election, a lot of effort is being made toward a transition plan for the new President’s appointed Secretary of Agriculture and documents to ensure the offices smooth transition. This has also been a unique learning experience. I have especially learned a lot of TLAs and FLAs (three and four letter acronyms respectively) in this process. All the advisors sit in three standard meetings a week and many additional meetings; one high-level meeting includes the heads of NIFA, ARS, ERS, NASS, The Chief Scientist and her Deputy. These meetings have been the best (most eye-opening?) opportunity to learn about the major initiatives and issues impacting USDA and the Federal government.

On a more personal level, the apartment I am renting is very nice in a neighborhood that is very friendly. It is mostly minority and blue collar residents but gentrifying fast like most of the city, which is creating a lot of issues. Many people might recognize that a 700 sq.ft. 2bed/2 bath apartment for $2300/mo. is a little different from Texas real estate and not affordable to everyone.

I have been fortunate to be able to ride the metro to work or bike to work (past our nation’s capital and the many museums along the mall, such as the Smithsonian) both in about 20 minutes and have not had a car for the last month (Washington has among the worst traffic in the US). Despite having two jobs, I am trying to take one day each weekend to explore this city. I have attended some free concerts in various parks, seen great art, learned some history, and was even present at the historical opening of the African American Museum of Culture and History.

I would be remiss to forget to thank Drs. Nithya Rajan and Bill Rooney for helping cover the classes I had been teaching; Drs. Baltensperger and Smith, the College Administration, and SCSC Staff for the encouragement and for working with me to make this happen; Jacob Pekar and my graduate students for keeping my research program, and their progress, going while I am away; and my wife for allowing me to temporarily uproot her once again.

My wife and I were fortunate enough to attend the Fall White House Gardens Open House and turf (golf) and food production were the primary highlights for attendees. No, we still have not met the president.
The Texas A&M Soil Judging Team won the soil judging contest in Ruidoso, New Mexico, in early October. They were the overall winners, and won the Team Judging event for soil. Four of the five team members finished in the top ten, with the fifth only two places out.

Sam Shroyer led the team, finishing as the 4th high individual, followed closely by Nicole Shigley - 5th high, Kacie Wynn - 7th high, Michael Bartmass - 10th high, and Rory Tucker - 12th high.

Coach Cristine Morgan is very proud of the team and the effort they made.

The TAMU Soils Team from left to right: Sam Shroyer, Michael Bartmass, Sarah Vaughn, asst. coach; Nicole Shigley; Dr. Cristine Morgan, coach; Cristine’s daughter Claire Morgan (front); Kacie Wynn, and Rory Tucker.

The team enjoyed some down time in Capitan, NM, the home of Smokey the Bear.

More Aggie Awards...

Congratulations to Payne Whatley for winning the 2016 TAMU Undergraduate Agronomy Society Speech Contest. Payne will now represent the TAMU Agronomy Society in the national competition in Phoenix, Arizona in November.

The national competition will be held in conjunction with the Students of Agronomy, Soils, and Environmental Sciences Meetings.

Payne, from Odem, Texas, is a sophomore Plant and Environmental Soil Sciences major. His presentation was on the Trans-Pacific Partnership.

Preston DeJong, a freshman PSSC major, was first runner-up in the local contest.
Barley might not be on the top of the list as a feed and forage for livestock, but the growing interest in craft breweries and micro distilleries has Texas A&M AgriLife researchers taking a look at the crop.

Currently, barley is grown on only about 30,000 acres in Texas, said Dr. Clark Neely, Texas A&M AgriLife Extension Service state small grains specialist, College Station. It is mainly used for feed and forage for livestock. But that is expected to change somewhat in the near future, Neely said, due to increased interest in craft breweries and distilleries searching for locally grown malt and distilling ingredients.

The craft brewing movement is exploding across the U.S., he said. Texas was home to 189 craft breweries in 2015 – a number that tripled in the last five years and now ranks seventh in the country. These breweries produce approximately 1.1 million barrels of beer annually, which requires roughly 200,000 tons of barley grain and could potentially support 100,000 acres or more of barley in the state.

The missing link is craft malt houses, where the grain is soaked and made into malt, Neely said. Breweries require malted barley and cannot purchase barley straight out of the field.

Currently, Texas has only one craft malt house, but business is good and expansion is planned in the near future, he said. Another two malt houses are in the building stages, so capacity is on the rise to support the craft brewing malt barley needs.

"With interest in local ingredients for these new markets along with feed barley for a growing dairy industry in the Texas High Plains, we have started looking for barley varieties that are adapted to Texas climates and those that can withstand drought, disease and pest pressure," he said.

Neely said he doesn't expect a surge in researchers screening barley germplasm or breeding new lines, but his program is beginning to evaluate existing varieties and out-of-state breeding germplasm for their viability in Texas.

In 2016, Neely’s program included a study of 112 spring two-row, 113 spring six-row and 136 winter barley varieties grown in Castroville, McGregor, Lubbock and College Station. Initial results show a wide range of adaptation from the barley lines evaluated under Texas climates, although continued screening will look for lines with superior yields and malting characteristics, he said.

Neely said while the brewery demand for barley is growing, it remains a niche market. The largest market for barley is still as a forage. New barley variety options may provide cattle or dairy producers a more drought-tolerant, water- and nitrogen-use efficient alternative to wheat for use in forage and silage production, he said.

To address this, the same advanced winter breeding lines from the Triticeae Coordinated Agricultural Project that were evaluated for grain and malting were also screened under Texas environments for forage and silage production, Hessian fly resistance and yield stability across environments.

The initial year of screening in 2014 evaluated 800-plus barley lines, but these have since been reduced to 150 lines based on characteristics such as disease resistance, vernalization requirements and grain production, he said.

The project will further screen these lines to identify the ones with the highest production capabilities for forage and grain production in Texas and evaluate if they are superior to existing cultivars.
A recent meeting with Blacklands producers led by AgriLife and NRCS indicated a need for better information and technical assistance in that region regarding the use of cover crops.

Soil and Crop Sciences professor Dr. Jake Mowrer, Nathan Haile of NRCS and Stiles Farm manager Ryan Collett met with producers in early September to discuss conservation tillage practices.

Seventy-eight percent of the producers who attended the meeting already use some form of conservation tillage. Some have limited experience, while others have been implementing reduced tillage practices for more than twenty years. The remaining twenty-two percent did not respond to the question.

According to Mowrer, the most common benefit to reduced tillage cited by the gathered producers was the reduction of input costs. Fewer trips across the field with a tractor and implement yields savings in fuel costs and equipment wear. Producers also recognized that reducing the presence of equipment in the field improved soil properties, citing better soil structure and reduced erosion.

When talk turned to cover crops, however, the producers were less convinced. Only sixty-seven percent expressed a belief in the benefit of planting cover crops, with eleven percent expressing doubt and twenty-two percent not responding.

The most common benefits cited by those who believe in the use of cover crops were improved water filtration, followed by increased soil quality and erosion reduction. These producers felt that soil quality was increased through increased organic matter and nitrogen fixation by the cover crop.

“However, while the farmers believed in the idea of cover crops being beneficial, nearly all cited problems with management of those crops,” Mowrer stressed. “To them the cover crops created obstacles that made them undesirable.”

Included in the problems encountered by the producers was the time required to prepare their field and plant the cover crop between their cash crops. In addition, the cost versus the return was not seen to be positive enough to warrant planting the cover crops. For those reasons, none of the farmers are currently using cover crops as a management strategy.

Throughout the meeting, one commonly cited obstacle to transitioning from a ‘clean’ tillage to a conservation tillage farming system was the cost involved in either buying new equipment, or phasing out no longer needed equipment. The farmers that met that night represented early adopters and innovators who proved that the transition can be made successfully and profitably by thinking carefully about the equipment modifications that work for their farming goals on their land. It seems that right now, however, transitioning to cover cropping has yet to result in the same profitability. Listening to the producers in the blacklands and assisting with modifications to cover cropping systems are necessary to overcome this obstacle to a more complete approach to conservation agriculture.

“If long term sustainable soil productivity is the goal, cover cropping should be a part of the equation,” Mowrer stated. “Therefore, more cost effective alternatives to current cover cropping approaches require more attention and investigation.”
Calls have been pouring into Texas A&M AgriLife Extension Service agent Chad Gulley’s office from homeowners whose grass is not faring well. Lawns are thinning, showing brown spots and showing other signs of pests and diseases, Gulley said. He noted diseases such as gray leaf spot and root rot, as well as pests such as chinch bugs, armyworms and white grubs causing problems for homeowners’ lawns.

“It seems like it’s been one thing after the other,” he said. “I think we’re seeing a lot of turfgrass-related stress because of extreme wet to dry to wet conditions over the last several months.”

The key is to diagnose the problem correctly and as early as possible, said Dr. Casey Reynolds, AgriLife Extension turfgrass specialist, College Station. Reynolds said most pest or disease problems for turfgrass are easy to remedy once the cause is determined.

“There are a lot of things that could be affecting turfgrass this time of year,” Reynolds said. “People are seeing damaged areas in their lawns and wanting to know what they can do. It could be anything from drought to gray leaf spot, large patch or armyworms, or it could be something simpler such as too much shade. The first step is making an accurate diagnosis.”

Making an accurate diagnosis requires identifying what type of grass is in the yard, because St. Augustine faces different threats than Bermuda grass, Reynolds said. Bermuda grass is a favorite for fall armyworms, and St. Augustine is susceptible to large patch, a fungus that results in patches of brown grass in the fall that can remain through spring.

“If they have St. Augustine grass and there are brown patches, there is a good chance it’s large patch, but that’s a guess. It could be white grubs eating roots, but that’s typically in drier conditions, so it’s doubtful with all the rain we had in August.”

Reynolds said insect activity should be reducing, though fall armyworms continue to be a nuisance around the state. Gray leaf spot and large patch are often aesthetic and most warm-season grasses will recover once better growing conditions resume. However, in extreme cases they can be damaging.

“One treated, the grass will reemerge with green leaves, but they may have to look at large or small brown patches for a few months if they wait until October or later when grasses start to go dormant for winter,” he said.

Reynolds said the AgriLife Extension’s turfgrass site, https://aggieturf.tamu.edu/, has several publications regarding pest and disease problems and provides treatment strategies for homeowners. But homeowners with doubts about their diagnosis should have a local landscape professional or AgriLife Extension agent take a look.

“There is a ton of good information on the site, including a publication that covers the various weeds, pests and diseases that are common problems in turfgrass,” he said. “If you can diagnose the problem accurately and go to the publication, it can tell you effective treatment options or you can call a professional applicator.”

Fall is also the time when homeowners should consider winterizing their lawns, which will give them a healthy head start in the spring, Gulley said.

Gulley said lawns should be fertilized six to eight weeks before the first frost to winterize grasses.

“That gives grass time to store up nutrients and gets them a good start to transition into spring,” he said. “But you’ve got to give grass enough time to build up before it goes dormant.”


Watch an interview with Chad Gulley regarding turfgrass issues at: https://youtu.be/IOii1y5j2c0
“Learn, support, educate” may not have been the theme but was the outcome of the second annual conference for women interested in conservation and stewardship of land in the Edwards Plateau, according to participants and presenters alike.

The Women in Wildlife Conservation conference recently held in Fredericksburg and attended by more than 70 women was an effort to help those who are inheriting land, purchasing land or who have become owners of land for various reasons, said Dr. Larry Redmon, Texas A&M AgriLife Extension Service program leader in College Station.

“We think this is an underserved audience,” Redmon said. “We think by getting these ladies together and discussing things with them about land stewardship, especially here in the Edwards Plateau, we can impact not only those who currently own the property, but those who will come after them, their daughters and the granddaughters.”

Clayton said the “next generation” is diverse, because it might be mothers similar to her own who in their 60s are just becoming the landowner. Or, it might be the daughters who barely have a connection with that land, who are being handed the responsibilities.

The current workforce is currently comprised of five working generations, something that has never happened before, she said.

She described them as the “Traditionalists,” born in 1945 and before, who worked longer than most, as long as they were physically able.

“Many times the grandparents work as long as they possibly can and are in charge,” Clayton said.

She said one or more of their children may work with them, but their wisdom doesn’t always get handed down to all of the children and grandchildren equally, even though all may have an equal share in the land management one day.

Then came the “Baby Boomers,” 1946-1964, who are not completely in the position to retire yet, she said. They have had to get work off-ranch sometimes because the older generation was still working the ranch.

“Generation Xers, 1965-1976, are just now peaking in their outside careers. A lot of them saw there wasn’t a place at the ranch for them at the time, so they sought a career outside, but have an interest in coming back and are thinking about returning,” Clayton said.

The Millennials, 1977-1995, are in the middle of their careers and starting their families and question how they fit into the multi-generational land heritage. And finally, Generation Z or iGen, born 1996 and after, might only see land recreationally, she said.

“They don’t see the land as a money maker for them. They like it, they enjoy it, but they don’t see a profit in it for them. They may even see it as a burden,” Clayton said.

She encouraged those in attendance to learn and support each other, “because you are each other’s resources, and in the future there will be more and more women who are landowners, and they are going to be looking to you for mentorship.”

The group identified some challenges women might face that men do not, including physical limitations; time, especially when they are still the caregivers of the household; overall knowledge, as it might not have been passed down to them over the years; and management authority.

Clayton said it is important that landowners let their children in on the decision making and responsibilities as early as possible so they have some working knowledge of what to do with the land when they become the manager.

Women representing land holdings of all sizes attended the second annual conference on stewardship in Fredericksburg.


Billy Kniffen, retired Texas A&M AgriLife Extension Center water resource associate from Menard, discusses rainwater harvesting for wildlife.

More women are taking on agricultural land ownership

Article and photos by Kay Ledbetter
“Maybe it’s just a pasture or two or the hunting lease management or some completely different enterprise, but do something that gives them a tie to that land and lets them be involved in it today so they will have an interest later when it is time for them to take over, so they won’t see it as a burden.”

Norma Favaro, who attended with her daughter, Constance Favaro, knows that feeling. She attended the women’s conference because she is inheriting a ranch from her aging mother.

“I came here to see what women do with their land – it felt like a burden to me, kind of scary, all the weight on my shoulders as someone who had never taken care of it,” Norma Favaro said. “My mom and dad had always taken care of it. Learning about stewardship is something new to me.”

Constance Favaro said she hopes what she learns can be used later when it is her time to take over, but also now to help her mother on things like leases, deer population management and help her not be so scared.

“Some of the topics we heard have got me excited now,” Norma Favaro said. “It’s given me that joy again, and it’s no longer something I have to do, but something I ‘get’ to do.”

They said it’s been a great experience to meet others who have the same struggles and being able to bond with them and bounce ideas off them, and to recognize there are differences between men and women and the challenges they face.

Additionally, attendees heard about rainwater harvesting for wildlife purposes, developing hunting lease agreements, deer and wildlife habitat management, the Master Naturalist program, financing hunting enterprises, beekeeping, and took a tour of native rangeland, identifying beneficial plants for wildlife.

Joan Luedke of Centerville and her daughter, Stacy Luedke Hill of Mesquite, have a ranch with more than 200 acres. They attended to “try to learn how to maximize the property we have and how to minimize the problems we have,” Joan Luedke said.

“We’re also here to get new ideas on what we can do with our land, learn from the other ladies here in an environment where we feel comfortable raising our hands and asking questions and not having to be embarrassed that we don’t know the answers,” Stacy Luedke said.

She said they’ve learned about rainwater harvesting, improving habitat for all animals and bringing their land back to a native state instead of just a cow pasture with deer on it.

“A lot of what we have is an invasive habitat,” Joan Luedke said. “We need to find better ways to take care of that. It’s nice to know we are not out here alone.”

Redmon said each October they will hold the conference in Fredericksburg and while the theme of the conference may change, the overall purpose will be land stewardship and how to take care of “your piece of Texas.”

Dr. Barron Rector, Texas A&M AgriLife Extension Service range specialist, College Station, provided the women with a walking weed identification tour.

Redmon said last year’s theme was overall land stewardship, an introductory program to the Edwards Plateau country and its history, as well as invaders such as juniper and wild hogs.

“This year we had more of a slant to wildlife, as that is very important to landowners in the Hill Country,” he said. “One landowner told me the revenue they derive from the wildlife many times is the profit, sometimes the only profit, they have on the ranch.”

Click Here to watch a video from this year’s program, or go to https://youtu.be/vfWcEVkrgg4
Join us for the Texas A&M University Soil and Crop Sciences Mixer at ASA November 8 at the Hard Rock Cafe 3 South 2nd Street Phoenix, AZ 85004
As producers across the state are planting winter wheat, it is important they consider crediting soil nitrogen in their management plans, according to a Texas A&M AgriLife Extension Service specialist.

Dr. Jake Mowrer, AgriLife Extension state soil fertility specialist in College Station, said producers can save money in fertilizer costs by taking advantage of existing soil nitrogen and still make expected yield goals.

Each year producers must determine what and how much nitrogen they will use to fertilize their crop, Mowrer said. His study is determining how soil testing can help producers know how much nitrates their soil already contains so they can credit that to their overall needs.

He said a study in Hill County on the effect of reducing nitrogen fertilizer applications to wheat based on soil test nitrates at depths as great as 3 feet was the first of its kind on a cool-season crop. Previous studies on warm-season crops such as corn, sorghum and cotton suggest nitrates may be credited to 24 inches without affecting yield, Mowrer said.

“We know that crediting nitrogen fertilizer could save an estimated $23 per acre for cotton and $31 per acre on corn and grain sorghum. But what about wheat – how does it respond to this program?”

Working with a producer in Itasca on a project funded through the U.S. Department of Agriculture’s Southern Sustainable Agriculture and Research Education, he said their goal was to produce 60-bushel per acre wheat. Soil samples were taken to 48 inches prior to planting in October 2015. The soil is Houston black clay.

Nitrogen from the soil was credited in different plots down to 36 inches. The wheat was harvested June 10. The full application of nitrogen performed the same as a credit to 6 inches and 12 inches, Mowrer said.

“Our results indicate that yield in wheat was not affected by crediting nitrate-nitrogen in the soil profile to a depth of 12 inches,” Mowrer said. “However, yields in this study were adversely affected when fertilizer was reduced by crediting nitrate deeper in the profile.”

He said the reason for this may lie in the different efficiencies at which wheat takes up nitrogen already in the soil, as compared to nitrogen that is applied at the surface.

“We know the best you can do production-wise is determined by the amount of water. Nitrogen is the input needed for crops right behind water.”

And, he said, the timing of any necessary fertilizer applications once the soil testing is done will affect the growth of wheat.

“We recommend putting out a third of the nitrogen upfront, and then right before jointing put out the other two-thirds,” Mowrer said.

“But remember, we can't manage the rate unless we know what is in the soil to begin with,” he said. “Voluntary soil testing isn't as widespread as we would like to see it. Soil testing is a really, really important part of managing our nutrients, particularly for nitrogen.”

Mowrer said his recommendation is to put about 1.5 pounds of nitrogen for grain production or 2 pounds per acre of nitrogen for grass.

“If there is some nitrogen in the soil, we can adjust that rate,” he said. “But you don't know what is there unless you test it. We recommend you can credit what you find all the way down to 2 foot.”

Another study he is working on is examining the different root systems to see if they make a difference in what nitrogen can be utilized, as well as determining if types of soils matter.

Following up on the results in the previous year’s wheat study will be a top priority in the coming season, Mowrer said.

“Although topdressing with surface applications is the recommended procedure for wheat at jointing, there are new technologies for fertilizer delivery that may hold the potential for increased nitrogen-use efficiency over what we see today with stream bars and tips.”

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Aggie Alumni ’14 Forrest Hagar, a manager with BrightView Landscapes in Houston came to share with the Aggie Turf Club at the end of September. Forrest is based out of the Woodlands, and shared with students about internships and employment opportunities around the U.S. with BrightView. BrightView is the nation’s largest landscape company, and was recently formed through a merger of Valley Crest and Brickman Landscape Companies.

**AggieTurf Calendar of Events**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
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| Oct. 19| Washington Nationals Internship- Russell Rafter  
Miramont Country Club Internship- Sam Irwin | 440 Heep                 |
| Nov. 2 | Milwaukee Brewers Internship- Corey Diaz | 440 Heep                  |
| Nov. 16| Winged Foot Golf Club Internship- Kevin Cloud | 440 Heep                  |
| Nov. 30| TAMU Turfgrass Science Undergrad Research- Scott Gee | 440 Heep                  |
| Dec. 13-15 | Texas Turfgrass Association Meeting | San Antonio Convention Center |

Turf Club Officers are: President, Kevin Hejl; Treasurer/PR Liason, Kirstin Burnett; Student Officers - Corey Diaz, Russell Rafter, Sam Irwin and Scott Gee.

For more information contact Dr. Ben Wherley at: b-wherley@tamu.edu
The 2016 Agronomy Society Corn Maze will open October 22!
Abnormal rains in August drowned and washed out most of the corn seed putting the event in doubt, but thanks to a very rapidly growing biofuel sorghum the show will go on!

The maze will be open weekends through November 13.
On Aggie home-game weekends the maze will be open Friday afternoons and Sunday 11-5,
On other weekends hours will be Saturday and Sunday 11 a.m. - 5 p.m.

Corn maze Sept 1  September 6  September 15

September 27

October 13

October 13
Geochemist is first Seminar speaker for 2016

A computational geochemist from the Sandia National Laboratories, Dr. Randall Cygan, helped kick off a new semester for the graduate seminar class. Dr. Cygan’s presentation, “Molecular Geochemistry of Environmental Processes” delved into the effect minerals, soils, and other natural materials have on chemical contaminants. Since most of these processes happen at the molecular level, Dr. Cygan and his team have developed and used quantum methods, as well as classical methods, to examine the mineral-water interfaces and the dynamics of interlayer species in clay minerals. They have also examined the behavior of CO2 at mineral interfaces to evaluate the effectiveness of geologic carbon sequestration.

Dr. Cygan received his Bachelor of Science degree in Chemistry from the University of Illinois at Chicago. He earned both his Master of Science and Ph.D. in Geochemistry and Mineralogy from Penn State. He joined the Geochemistry Department at Sandia in 1983, was promoted to Senior Scientist in 2012, and remained there until his retirement earlier this year.

Dr. Cygan may be returning to Texas A&M in the near future to work in collaboration with researchers here.

In Sympathy

Our prayers go out to Dr. Monty Dozier who lost his father, L.T. Dozier, in September. The elder Mr. Dozier was 93 years of age. He is survived by his wife of 68 years, his six sons, and one daughter. He was preceded in death by his daughter, Tami.

Monty, formerly a professor in the Soil and Crop Sciences Department, is the Regional Program Leader for Agriculture & Natural Resources, and 4-H and Youth Development.
Calendar

October
3-4 - Bennett Ladies Conference - New Braunfels
6-7 - Surface Mine Reclamation Workshop - College Station
12-14 - World Food Prize
22 - Agronomy Society Corn Maze Opens - open weekends through Nov. 13
24 - 28 - Fall Ranch Management University
25-27 - CAST
26-28 - Dr. Doane - Chilicoat
27-28 - Fall COADC
28 - SCSC Chili Cook-Off - Heep 424
29 - College of Agriculture and Life Sciences Tailgate - College Station

November
5 - 10 - ASA - CSSA - SSSA Meeting - Phoenix, AZ
8 - ASA-CSSA-SSSA Aggie Mixer - 5:30 pm - Hard Rock Cafe - Phoenix AZ
18 - Leadership and Legacy
21-22 - Annual Reviews - Amarillo and Vernon
22 - SCSC - ENTO Annual Thanksgiving Dinner - Heep 4th floor
29 - Commodity Classic
29 - Dec. 1 - Amarillo Farm and Ranch Tour
November 30 - Dec. 2 - Texas State Support Committee Project Review Meeting - Lubbock

December
1 - College Holiday Social
3-5 - CSSP - Washington D.C.
6-7 - Texas Plant Protection Conference - Bryan-College Station
8-9 - America Seed Trade Assn. - Chicago, IL
9 - Faculty Meeting - 1:30 p.m.

Save the Date
January 4-6 - Beltwide Cotton Conference - Dallas, TX
January 9 - 13 - AgriLife Conference - TAMU campus, College Station
January - Department Awards - Annual Faculty/Staff Meeting
January 31-Feb 2 - Texas/Oklahoma Cotton Physiology Meeting