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Southern Weed Science Society

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Note From the President:

I sincerely hope everyone has recovered from the 2021 Virtual SWSS Annual meeting in January and has been able to maintain their health this past winter. I'm already going full speed with trial initiations. After several obstacles throughout 2020 and the beginning of 2021, it appears COVID19 is slowing down and some of the mask and distancing rules are beginning to relax. Some really good news for 2021, the SWSS Weed Contest is returning after missing a year. Corteva has been very gracious and is supporting the SWSS Weeds Contest in Greenville, MS on Aug. 3, 2021 from 7AM to 4PM CST. Drew Ellis and Corteva have established safety rules while at the contest for all attendees to follow and you will read more on that if you are working during the contest or affiliated with a visiting team. I believe on last count there were eight college teams indicating they would attend the contest at the Corteva Research Farm. Prepare for some fast-paced learning and competition come August. If you have questions about the contest, please check with Drew Ellis.

2021 Former Annual Meeting Plans - The SWSS local arrangements staff (Jim Brosnan) worked many hours with the Knoxville Convention Center and Hilton hotel, where our 2021 meeting was planned to be held, only for the SWSS board to pull the plug on the event. The event could have cost the society over $150k if the SWSS cancelled later, but we cancelled in July 2020, saving the society significant funds. With a desire to still hold the meeting, there were many scenarios of conducting the annual meeting. We were able to have live presentations, submit posters, and listen to some interesting people in the General Session (Senator Boozman of AR, Dr. Bob Scott/ Sr. Assoc. VP for Agric. In the Univ. of AR System Div. of Agriculture, Dr. David Bridges/Pres. of ABAC, Dr. Stephen Powles/world leader of weed resistance, and Mrs. Emily Unglesbee/DTN Reporter). All these people spoke on how to cooperate with others so you might be more successful. I hope many of you never forget Dr. Bridges discussion (and meaning) of the turtle he found sitting on a fence post.

2021 Virtual Annual Meeting - The meeting used less than two days of your time (the board set up an open morning for you on the second day). If you noticed, while there were two concurrent rooms running on Day-1, not one live paper overlapped a paper from the same university. Also no MS or PHD section (such as agronomic) overlapped each other. Moving from room to room in Zoom took no longer than walking from room to room at past annual meetings. There were many moderators and hosts working with the introductions. I want to mention these people now, because many sat through up to nine Zoom training meetings in preparation for the virtual meeting. These Virtual Talk teams were run by: Dr. Gary Schwarzlose & Dr. Nilda Burgos, Dr. Jim Brosnan & Dr. Tim Adcock, Dr. Larry Steckel & Dr. Greg Stapleton, and Dr. Eric Castner & Dr. Jacob Reed. Gary also ran the General Session the second day of the meeting. Dr. Pete Eure organized the judges for the student virtual paper and poster contest, which included many volunteers from the membership. Our Business Administrator Kelley Mazur did an excellent job of not just training me on developing the program hard copy, but she handled all the registrations and finances. I also want to thank the 19 students that attended the two student Zoom trainings. Hopefully this allowed you to improve your virtual presentation; it also allowed myself and hosts/cohosts to receive additional training.

2021 Annual Meeting Analytics - Here are some data on the 2021 Annual meeting: Virtual student contest papers: 33 PhD and 27 MS. Student Poster Contest: 47. Non-Student Posters: 53. There were 247 paid attendees. Registration fees for the meeting were reduced when compared to a normal annual SWSS meeting. The meeting net profits exceeded $25k. The personal savings per attendee was greatly reduced due to no travel, no hotel, and no meals to be expensed.

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2022 Annual Meeting - Following the August 3, 2021 Weed Contest, our next big event will be the Jan. 2022 Annual Meeting at the AT&T Executive Educ. and Conf. Center in Austin, TX from Jan. 23 - 27. Please make plans to attend this meeting and revisit with people you might have missed for a couple of years. Our V.P, Dr. Darrin Dodds will be running the program for the 2022 meeting and the summer newsletter will have all the information for submitting titles and registering for the meeting. Local arrangements will be run by Dr. Luke Etheridge and Dr. Ben McKnight, so you might be getting a call from them to help out if you're in Texas.

Weed Science Funding - I've been working with Lee Van Wychen and other regional and national Weed Science Presidents to support bills to increase funding for Agricultural Research Infrastructure. One of our efforts is to increase funding of the NIFA Crop Protection and Pest Management (CPPM) program an additional $5M. Another area we're requesting an increase in funding is the IR-4 program, funding from $11.9M to $20M annually. I spoke with staff members of three senators and one representative in April. The outlook of agriculture is evolving in a valuable way, but everyone else wants a piece of the pie. Funding for agriculture is very competitive and everyone in weed science should be supporting these programs.

Summer Board Meeting - The SWSS Executive Board and local arrangements will meet in Austin, TX at the AT&T Exec. Educ. & Conf. Ctr. on July 27 (1:30PM) and July 28 (adjourn 10:15AM). This is the week before the Weed Contest. If you have a special request, please let me or one of the board members hear from you a couple of weeks prior to the board meeting.

Thanks, Clete Youmans
President

2021 Graduate Student Paper & Poster Contest

The virtual SWSS Graduate Student Contest was a big success! An incredible amount of talent was showcased with over 100 students participating. Presentation and poster quality were excellent, and information shared will advance the field of weed science. High quality papers and posters are a testament to the commitment students and their advisors have to our discipline.

Events such as this are not possible without volunteers. Thanks to the more than 50 judges and volunteers that made the contest a success. A special thanks goes to our graduate student contest committee members Tommy Butts and Matt Wiggins, as well as Clete Youmans that helped navigate the virtual student contest. Thank you all for your participation and best regards!

Pete Eure

POSTER CONTEST WINNERS			
M.S. Section #1	1st Place	Tristen Avent	*University of Arkansas*
	2nd Place	Rodger Farr	*University of Arkansas*
M.S. Section #2	1st Place	Ubaldo Torres	*Texas Tech University*
	2nd Place	Morgan McCutchen	*Texas A&M University-Kingsville*
Ph.D. Section #1	1st Place	Sandra Ramsey	*North Carolina State University*
	2nd Place	Eric Jones	*North Carolina State University*
Ph.D. Section #2	1st Place	David Walker	*Louisiana State University*
	2nd Place	Camp Hand	*University of Georgia*
Ph.D. Section #3	1st Place	Kayla Eason	*University of Georgia*
	2nd Place	Miurel Brewer	*University of Florida*
PAPER CONTEST WINNERS			
M.S. Section #1	1st Place	Bodie Cotter	*University of Arkansas*
	2nd Place	John Taylor	*Mississippi State University*
M.S. Section #2	1st Place	Delaney Foster	*Texas Tech University*
	2nd Place	James Beesinger	*University of Arkansas*
M.S. Section #3	1st Place	Pamela Carvalho-Moore	*University of Arkansas*
	2nd Place	Nicholas Hurdle	*University of Georgia*
Ph.D. Section #1	1st Place	Taylor Randell	*University of Georgia*
	2nd Place	Devon Carroll	*University of Tennessee*
Ph.D. Section #2	1st Place	Hannah Wright	*University of Georgia*
	2nd Place	Wykle Greene	*Virginia Tech*
Ph.D. Section #3	1st Place	Maria Zaccaro	*University of Arkansas*
	2nd Place	Justin Calhoun	*Mississippi State University*
Ph.D. Section #4	1st Place	Mason Castner	*University of Arkansas*
	2nd Place	Chad Abbott	*University of Georgia*

2021 SWSS Award Winners

2021 Outstanding Young Weed Scientist (Academia) - Muthukumar Bagavathiannan

Dr. Muthukumar Bagavathiannan is an Associate Professor of Weed Science & Agronomy at the Department of Soil and Crop Sciences, Texas A&M University, College Station, TX. He received BSc (Agriculture) and MSc (Agronomy) at Tamil Nadu Agricultural University, Coimbatore, India; MSc in Plant Genetic Manipulation at the University of Nottingham, England; PhD in Weed Ecology at the University of Manitoba, Canada; and postdoctoral training at the University of Arkansas, USA. Dr. Bagavathiannan's research interests fall within the broader area of Weed Science and Agronomy, with particular emphasis on weed ecology and integrated management. The threat of herbicide resistance is immense in broad-acre systems, leading to loss of effective herbicide options, increased herbicide use, and unintended impacts on the broader environment. To this effect, the prime goal of his research program is to understand the evolutionary biology and dynamics of herbicide resistance in weed communities and develop integrated weed management (IWM) solutions for effectively tackling this challenge. Recently, his program has a substantial research focus on the application of digital tools in weed ecology and precision weed management. He takes an inter-disciplinary approach in tackling these challenges, by collaborating broadly at local, regional, national, and international levels. He leads or participates on a number of multi-state research projects focusing on integrated weed management.

Dr. Bagavathiannan has published over 75 peer-reviewed journal articles, 10 book chapters and several outreach bulletins. He has so far mentored 5 PhD students, 3 MS students, 4 postdoctoral researchers, 2 research assistants, 5 visiting scholars, 12 student interns, and 8 undergraduate researchers; and is currently mentoring 8 PhD students, 3 MS students, 1 postdoctoral researcher, 1 student intern, and 3 undergraduate researchers. He serves as an Associate Editor for Weed Science (WSSA) and Crop Science (CSSA) journals. Dr. Bagavathiannan was the recipient of the 2020 WSSA Outstanding Early Career Scientist Award, the 2019 Vice Chancellor's Outstanding Early Career Research Award, and the 2018 Dean's Outstanding Early Career Research Award from the College of Agriculture and Life Sciences, Texas A&M University.

2021 Outstanding Young Weed Scientist (Industry) - Matthew Wiggins

Matthew Wiggins serves as a Technical Service Manager with FMC covering Tennessee, Kentucky, North Alabama, and Southeast Missouri. His passion of agriculture started from being active in 4-H and FFA showing cattle and participating in many different development events. Matthew received a Bachelor of Science in Agriculture, with an emphasis in Agricultural Engineering Technology (2009) from Tennessee Technological University. Upon graduation, Matthew attended the University of Tennessee and received his M.S. (2012) in Plant Sciences and Ph.D. in Weed Science (2014), under the guidance of Dr. Larry Steckel. His Ph.D. research focused on herbicide-resistance management by integrating winter-annual cover crops and herbicide programs to control Palmer amaranth in corn, cotton, and soybean systems.

Matthew received several awards during his graduate school career from regional and national organizations. Most recently, he was recognized by FMC where he received the Ignite Award and the Tower Award in 2020. Additionally, he was recognized in 2017 by the Weed Science Society of America as an author for the Outstanding Paper Published in Weed Technology in 2016. Matthew continues to serve the Southern Weed Science Society and the Weed Science Society of America by volunteering to participate on various committees and supporting graduate student activities.

2021 Outstanding Graduate Student Award (MS) - Nick Hurdle

Nick is currently a PhD student at the University of Georgia under the direction of Dr. Timothy Grey. Nick received a B.S. in Crop and Soil Sciences from the University of Tennessee at Martin, followed by an M.S. in Crop and Soil Sciences with a focus on weed science from the University of Georgia. His primary research focuses on herbicide interactions with emerging peanut, herbicide tolerance in citrus orchards, and peanut storage regimes and their effect on germination and vigor. He will also focus on peanut seed treatments and their effect on early season growth. Prior to this, Nick worked on herbicide interactions with emerging peanut at the physiological level during his M.S. With no peanut experience prior to his time at UGA, Nick has developed a passion for weed control in peanut and assisting growers in weed management. In his time at UGA, Nick has participated in multiple student contests at the regional and national level with several 2nd and 3rd placings, and currently serves as the American Peanut Research and Education Society's President of the Graduate Student Organization. Nick has 4 publications ranging from herbicide tolerance in bermudagrass to physiological response of peanut to herbicide applications and direct applications of herbicide to peanut seed. Before attending UGA, Nick held an internship position overseeing the crop protection applications of research plots, maintaining grower showcase plots, and assisting in grower showcase days.

2021 Outstanding Graduate Student Award (PhD) - Sam Rustom

Sam is a native of Greenwood, Mississippi, where he was first introduced to agriculture at a young age on a small family farm where his grandfather grew cotton, soybeans, and wheat. He worked for various farmers in the Mississippi Delta beginning at age 13 until he finished his B.S. in Environmental Science at Delta State University in 2014. Upon graduation Sam completed an internship with Monsanto at their former biotech research site in Leland, Mississippi working with corn, cotton, soybeans, and turfgrass. In 2015 Sam enrolled in graduate school at Louisiana State University under the direction of Dr. Eric Webster. His M.S. project focused on quizalofop-p-ethyl mixture interactions with other herbicides in rice production. Sam remained at LSU to earn his Ph.D. under Dr. Webster focusing on florpyrauxifen-benzyl activity and use in Louisiana rice production systems. In 2019 Sam began working full-time as a Research Associate in Dr. Webster's program.

During his time at LSU, Sam has authored or co-authored seven peer-reviewed journal articles with five more lead author publications expected from his Ph.D. project. Additionally, he has authored or co-authored 66 abstracts from scientific presentations, 18 abstracts from international presentations and eight experiment station bulletins/research reports. Sam has been actively involved with teaching undergraduate and graduate curriculum, serving as Teaching Assistant for the Weed Biology and Ecology and Herbicide Physiology courses taught at LSU. He has also been involved with extension, presenting his work at LSU field days and local grower meetings. He finished his Ph.D. coursework with a 4.2 GPA.

Since 2015 Sam has been actively participating in the Southern Weed Science Society and served on the local arrangements committee, as a session chair, and as a moderator for the 2020 conference. He is also a member of the Weed Science Society of America, Rice Technical Working Group, and International Weed Science Societies. Sam has also competed in presentation competitions within these societies and was awarded first place for Ph.D. oral presentation at the 2019 Weed Science Society of America and 2020 Southern Weed Science Society annual conferences. He has also presented his research at several international conferences including the 2015 and 2017 Brazilian Irrigated Rice Congresses, as well as the 2017 and 2020 International Temperate Rice Conferences in Australia and Brazil, respectively. He has also competed at the SWSS Weed Contest every year since beginning graduate school, and his team placed third at the 2018 contest in Memphis. Sam plans to continue his involvement with the SWSS after graduation by serving on the local arrangements committee for the 2022 meeting in Austin, as well as continuing involvement with graduate student competitions and contests. Sam graduated in December 2020 and has recently began a career at FMC as the Technical Service Manager in Texas and New Mexico.

2021 Excellence in Regulatory Stewardship Award - Larry Steckel

Larry Steckel was raised on a small family farm near Carrollton, Illinois. He received his B.S. in agronomy in 1987 from Western Illinois University and his M.S. in Weed Science from the University of Missouri in 1989. Larry then went on to work for Pioneer Hi Bred Int'l. where he worked for 10 years as an Agronomist. He left Pioneer to pursue a Ph.D. in the spring of 2000 and received his doctorate in 2003 from the University of Illinois. Larry joined the Department of Plant Sciences at the University of Tennessee in 2003 where he holds a weed science extension (75%) and research (25%) appointment.

Dr. Steckel's extension/education efforts have been recognized formally several times with awards including the Cavender award for outstanding extension publication from the UT Institute of Agriculture, Excellence in Extension Award from Gamma Sigma Delta, the Weed Science Society of America Extension award, the Association of Southern Region Extension Directors Runner-up Excellence in Extension Award and most recently the Outstanding Educator Award from the SWSS.

Dr. Steckel maintains an extensive applied research program that has focused on the biology and management of troublesome weeds which has recently been Palmer amaranth, junglerice and horseweed. These weeds cause Tennessee growers the most management challenges and is where the majority of his program efforts are directed. His research has been recognized by the National Conservation System Cotton and Rice Conference with the Conservation System Cotton Researcher of the Year award, the University of Tennessee Ag Research Impact award and he has received the Award of Excellence – Outstanding Paper award in 2017 and 2018 for manuscripts in Weed Technology as well as the Superior Paper Award for a manuscript in the American Society of Agriculture and Biological Engineers in 2018.

Dr. Steckel has been one of the leaders in the State of Tennessee's dicamba training which is taken annually by over 4,000 applicators. Dr. Steckel was also part of a team that put together Tennessee's pesticide applicator recertification effort most notably with education focused on glyphosate stewardship. He works closely with the Tennessee Department of Agriculture advising them on pest management issues as well as mentoring some of their field inspectors. He also provides data and insight to the Environmental Protection Agency as they evaluate herbicide registrations.

2021 Fellow Award - David Jordan

David Jordan was raised on a small farm in eastern North Carolina and received BS and MS degrees from North Carolina State University and a PhD in Agronomy from the University of Arkansas (1993). David was a Post-Doctoral Associate at the University of Georgia (1993) and a faculty member at the Louisiana State University Agricultural Center (1993-1996). David is currently a Professor at North Carolina State University in the Department of Crop and Soil Sciences. David's first formal experiences with weed science were in Doug Worsham's weed science course and through an internship with DuPont under Louis Rodrigue. David's MS and PhD programs were directed by Alan York and Robert Frans, respectively. David focused on weed management in rice and soybean at LSU. David's focus in North Carolina has been peanut-based cropping systems in areas of agronomy, weed science, and IPM with both research and extension responsibilities. From 2007 to 2011, David provided assistance in weed science programs across several agronomic crops in North Carolina due to vacancies in key weed science positions. David has instructed courses in weed science, soil-crop management systems, IPM, and peanut production. David has directed statewide education programs associated with peanut management in North Carolina since 1996. David has served in elected, appointed, and volunteer positions in both WSSA and SWSS as well as other professional organizations and societies. David has made significant contributions in Sub-Saharan Africa since 2002 in areas of agronomy, weed science, IPM, and aflatoxin mitigation in peanut. David's work in the United States includes general weed management, pesticide compatibility, adjuvants, and management of herbicide-resistant weeds. David has led efforts to develop risk management tools for peanut in several countries. David has co-authored over three hundred peer-reviewed papers and has advised, co-advised or served on committees for over 90 graduate students. Since becoming a member of both the WSSA and SWSS in 1987, David has worked alongside many dedicated and talented people in academia and graduate education, industry, government and regulatory agencies, and NGOs as well as farmers and their advisors to address important issues related to managing weeds.

2021 Fellow Award - Henry McLean

Henry McLean was raised in South Georgia in a farming family. He received his B.S. in Agronomy (1981) and MPPPM from the University of Georgia (1984) under Dr. Phil Banks. He began his career as a R&D Rep. for Sandoz responsible for Georgia, Florida, and Alabama. He returned to the University of Georgia and obtained a Ph.D. in Crop and Soil Science under Dr. John Wilcut (1998). In 1997, Henry accepted a position as the Novartis Midwest Research Station manager and 2001 relocated to the Syngenta site in Greensboro, NC in the role of Senior Data Analysis and Data Management Group Leader. In 2007, he accepted "best job in industry" as of Senior Field Scientist covering GA/AL and North Florida. Presently, he is a Senior Field Biology Expert (international appointment).

He attended his first "Southern" in 1984 and has rarely missed a meeting since. His development work has contributed to the development of herbicides including norflurazon, dimethenamid, S-metolachlor, trifloxysulfuron, butafenacil, bicyclopyrone, clodinafop, pinoxaden and fomesafen. He has also led several national teams within Syngenta including the Safety and Data Quality. Dr. McLean has authored or co-authored 41 publications, abstracts, or presentations pertaining to weed control and an additional 11 publications pertaining to fungicides and/or insecticides. He has always considered the SWSS as "home" and as the best professional society within or outside of Weed Science. He has served on numerous committees within WSSA and SWSS including: WSSA Herbicide Handbook, SWSS-Weed Scientist of the Year, Distinguished Service Award, and Outstanding Young Weed Scientist (Chair) and Local Arrangements. In addition, he has judged presentations at SWSS for 10+ consecutive years.

While Weed Science has been a primary interest, industry positions often demand involvement in other disciplines. Henry has been instrumental in the development and commercialization of four fungicides including: cyproconazole, solatenol, oxathiapiprolin, and adepidyn. While being given the opportunity to do things and go to more places than he ever imaged, it has only been possible with the support and understanding of his wife and partner Susan of 41 years and his two wonderful children Justin and Katelyn.

Are You on a SWSS Committee?

The Southern Weed Science Society is successful due to the many volunteers that help the organization run. Serving the organization is an excellent way to ensure its continued success and interact with fellow SWSS members.

To find the current SWSS Committee List for 2021, click the link here: http://www.swss.ws/wp-content/uploads/SWSS-Committees_2021-22.pdf.

To read more about each committee and its role within the organization, read the SWSS Manual of Operating Procedures located here: http://www.swss.ws/wp-content/uploads/SWSS-Manual-of-Operating-Procedures-2020_8.12.2020.pdf.

If you're interested in volunteering for a committee, please contact the chair of the committee or send an email to tbutts@uada.edu.

@SouthWeedSciSoc

Credit: Lynn Sosnoskie

New Podcast Focuses on the "War Against Weeds"

In a year upended by the COVID pandemic, three WSSA members specializing in extension work have found a new socially distanced way to share information. They've launched the *War Against Weeds*, a new podcast devoted to weed management.

The mastermind behind the project is Sarah Lancaster, an assistant professor and extension weed scientist at Kansas State University. "I have childhood memories of riding in the tractor and grain truck with my dad and listening to a lot of radio," Sarah says. "I wanted to use the podcast platform to take advantage of that 'windshield time.'"

Sarah pitched the idea to two colleagues who also work in extension weed science roles – Mandy Bish at the University of Missouri and Joe Ikley at North Dakota State University. By January 2021, the three had their new *War Against Weeds* podcast up and running.

Weekly episodes have covered a wide range of topics – from the latest on herbicide resistance to tips for minimizing the weed seed bank. Weed scientists and other stakeholders from around the country have become featured guests. For example, University of Delaware extension specialist Mark VanGessel joined an episode focused on marestail/horseweed control, while Maryland producer Trey Hill of Harborview Farms joined an episode focused on cover crops.

Mandy says that regardless of the topic at hand, the goal is to present information in an authentic, conversational way that keeps the audience engaged. "Listeners not only hear about data-driven research, but also about varying experiences and perspectives – often with some laughter peppered in," she says.

Most episodes average 20-40 minutes in length and are drawing upwards of 150 listeners a week. In April as the prime growing season approaches, the team plans to move to shorter "from the field" updates on timely topics. Full-length episodes and guest interviews will return in the fall.

"There have been limited extension opportunities during the COVID pandemic, and a podcast is one way to help fill that void," Joe says. "It's also a way to extend our reach once social distancing is no longer required. We hope our audience will develop a deeper understanding of weed management and why we as extension specialists make the recommendations we make."

Want to listen?

You can subscribe to the *War Against Weeds* through your podcast provider of choice – or can listen online at https://waragainstweeds.libsyn.com. There is no fee. The War Against Weeds is funded by a grant from the North Central Integrated Pest Management Center (NCIPM).

Updates Corner

2021 SWSS Summer Weed Contest is a Go!

- Where? Stoneville, MS
- When? August 3rd, 2021
- Contest rules & COVID19 guidelines can be found here: http://www.swss.ws/collegiate-weeds-contest/.
- Questions? Contact Drew Ellis andrew.ellis@corteva.com

Member Spotlight

We want to hear from you! Introducing a Member's Spotlight section. Know someone that is working on an interesting project, or has been involved in some pretty incredible things? Our community is rich with great people! So nominate a member. Faculty, graduate student, industry professional, research support staff, all are welcome!

Send nominations to Tommy Butts at tbutts@uada.edu.

Have you heard? HRAC has updated its Herbicide Mode of Action Classification System.
Explore WSSA's recent fact sheet at:
https://wssa.net/wp-content/uploads/HRAC-FACT-SHEET-FINAL-1.pdf

Washington Report

April 30, 2021
Lee Van Wychen

Vilsack Confirmed as USDA Secretary Again

On Feb. 23, 2021, the Senate confirmed Tom Vilsack by a 92-7 vote to lead USDA as the 32nd U.S. Secretary of Agriculture. Vilsack was serving as the CEO of the U.S. Dairy Export Council following the eight years he served in the Obama Administration as the 30th Secretary of Agriculture from 2009 to 2017. Prior to that, he served as governor of Iowa from 1999 to 2007. Vilsack is the first USDA Secretary to serve in two different administrations nonconsecutively.

Vilsack earned his bachelor's degree at Hamilton College in Clinton, NY and his J.D. from Albany Law School. Vilsack and his wife Christie moved to Mount Pleasant, IA in 1975, where he joined his father-in-law's law practice. He became mayor of Mount Pleasant in 1987 and then was elected to the Iowa Senate in 1992 before becoming governor of Iowa in 1999.

Castille Appointed as New USDA-NIFA Director

On Dec. 22, 2020, the Trump administration named Dr. Carrie Castille as the new director to USDA's National Institute of Food and Agriculture (NIFA). The NIFA director position is a six year appointment and she will be the first female to serve in this role in a non-acting capacity.

Dr. Castille served as Assistant Professor and Agriculture and Natural Resource Leader at Louisiana State University prior to serving as Associate Commissioner and Senior Advisor to the Commissioner for the Louisiana Department of Agriculture and Forestry. She was currently serving as coordinator for USDA's Farm Production and Conservation mission area in the mid-south.

She holds a Ph.D. in Renewable Natural Resources and M.S. in Environmental Studies from Louisiana State University, and a B.S. degree in Industrial Engineering from the University of Louisiana at Lafayette.

Legislation to Boost USDA Research Funding Reintroduced

Senators Dick Durbin (D-IL) and Jerry Moran (R-KS) reintroduced the **America Grows Act**, S. 1371, that would require a five percent annual funding increase each year for the next 10 years for research activities at USDA's ARS, NIFA, NASS, and ERS. The U.S. share of total agriculture research investments among high-income countries as a group has declined from 35 percent in 1960 to less than 25 percent by 2013. By comparison, in the past 30 years, Chinese investments in agriculture research have risen eight-fold.

The six National and Regional Weed Science Societies joined over 120 other organizations in a letter to Senate Agriculture and Appropriations Committee members supporting the America Grows Act of 2021.

Weed Science Societies Support Federal Investment in Ag Research Infrastructure

In 2021, Gordian assessed the state of facilities at U.S. Land Grant colleges of agriculture (1862, 1890, 1994) and reported that **69% of these buildings are at the end of their useful life.** The report stated that the cost of upgrading deferred maintenance now is $11.5 billion, and the replacement cost for the dilapidated facilities is $38.1 billion.

The National and Regional Weed Science Societies joined many other stakeholder groups in a letter to the House and Senate Ag Committees strongly urging them to include a federal agricultural research infrastructure investment of $11.5 billion over a period of five years. Such an investment is necessary to advance the critical work being done at Land Grant Universities across the country to support American jobs, recruit and graduate 60,000 new U.S. graduates annually with ag and natural resource management expertise, and ensure ongoing U.S. leadership in food and agricultural innovation.

Final Appropriations for FY 2021 and Weed Science Society Requests for FY 2022

The Consolidated Appropriations Act of 2021 that was signed into law (P.L. 116-260) on Dec. 27, 2020 making appropriations for the fiscal year ending September 30, 2021.The bill combined a $900 billion Covid relief bill with the $1.4 trillion for the 12 annual spending bills making it one of the largest spending measures even enacted by Congress. Below are final FY 2021 appropriations for certain federal agency programs with a focus on weed research and management in agricultural and natural ecosystems as well as the weed science societies request for FY 2022 appropriations.

	FY19 Final	FY20 Final	FY21 Final	Weed Science FY22 Request
	---------- Millions ----------			
USDA-ARS	$1,303	$1,414	**$1,492**	$1,721
USDA-NIFA	$1,471	$1,527	**$1,570**	
-AFRI Competitive Grants	$415	$425	**$435**	$600
-Hatch Act (Exp. stations)	$259	$259	**$259**	
-Smith Lever (Extension)	$315	$315	**$315**	$335
-IR-4 Program	$12	$12	**$12**	$20
-Crop Protection and Pest Management	$20	$20	**$20**	$25
USDA-APHIS: Cogongrass eradication**			**$3**	$4
Army Corps- Aquatic Plant Control research	$6	$6	**$7**	$13
EPA - Great Lakes Restoration Initiative	$300	$320	**$330**	$375
DOI – Wildland Fire: Fuels Management	$189	$194	**$220**	$240
DOI – BLM: Rangeland Management	$104	$106	**$106**	$116
DOI- FWS: National Wildlife Refuge System: Wildlife and Habitat Management	$234	$239	**$240**	$250

** The final FY 2021 appropriation directs APHIS to reallocate $3 million from its Field Crop and Rangeland Ecosystems Pests account to create a pilot program for the **control and eradication of cogongrass** focused on the following states: **Alabama, Georgia, Mississippi and South Carolina.**

Regan Confirmed as EPA Administrator

Michael S. Regan (pronounced REE-gan) was confirmed by the Senate on March 10 by 66-34 vote to serve as the 15th Administrator of the U.S. EPA.

Regan is a native of Goldsboro, NC and received a B.S. in earth and environmental science at North Carolina A&T State University. He received a Master of Public Administration from George Washington University and worked at EPA from 1998 to 2008 working on air pollution issues. He then joined the Environmental Defense Fund (EDF) for eight years before being selected by NC Governor Roy Cooper in 2017 to serve as the secretary of the NC Department of Environmental Quality.

WSSA Comments on Endangered Species Act Assessments for Triazines and Glyphosate

Last fall, EPA released its draft biological evaluations (BEs) for the triazines and glyphosate for review and comment. Biological evaluations (BEs) are the beginning of EPA's Endangered Species Act (ESA) consultation review process for pesticides where they determine if an endangered or threatened species or critical habitat could be affected by the use of that pesticide.

The WSSA submitted separate comments for the triazines and glyphosate. In general, EPA's biological evaluations (BEs) lack a workable and consistent approach to endangered species assessments. An assessment process which essentially equates any exposure to a pesticide as a possible concern to any species does little to advance appropriate options which could be tailored to improve species protection. The implications of unrealistic analyses will result in unjustified restrictions on the use of both triazine and glyphosate products which remain critical weed management tools across the U.S.

The WSSA would like to thank the many weed scientists who submitted comments documenting actual use rates and patterns for these herbicides.

2020 WRDA Authorizes Over $100 Million for Invasive Species Management

The 2020 Water Resources Development Act (WRDA) was included as part of the massive 5000+ page Consolidated Appropriations Act of 2021. WRDA bills are authorization bills, analogous to Farm Bills, enacted by Congress to deal with various aspects of water resources such as environmental, navigational, and flood protection issues that are mostly administered by the U.S. Army Corps of Engineers (ACOE). This is the 14th WRDA bill enacted since 1974 and the fourth since 2014.

New invasive species provisions included in 2020 WRDA:

- Authorizes $25 million for a Harmful Algal Bloom (HAB) demonstration program to "*determine the causes of, and implement measures to effectively detect, prevent, treat, and eliminate, harmful algal blooms associated with water resources development projects*". The HAB demonstration program will be carried out by ACOE with focus areas in the Great Lakes, the tidal and inland waters of New Jersey, the coastal and tidal waters of Louisiana, the waterways of the counties that comprise the Sacramento-San Joaquin Delta, California, the Allegheny Reservoir Watershed in New York, and Lake Okeechobee, Florida.
- Requires the Army Corps to add ''prevention'' to its aquatic invasives species research (33 U.S. Code § 2263a). Specifically: "*As part of the ongoing activities of the Engineer Research and Development Center to address the spread and impacts of aquatic invasive species, the Secretary (of the Army) shall undertake research on the PREVENTION, management and eradication of aquatic invasive species, including Asian carp, ELODEA, QUAQQA MUSSELS, and zebra mussels.*"
- Directs the Army Corps to conduct a terrestrial noxious weed control pilot program in consultation with the Federal Interagency Committee for the Management of Noxious and Exotic Weeds (FICMNEW) "*to identify and develop new and improved strategies for terrestrial noxious weed control on federal land under the jurisdiction of the Secretary* (of the Army)".
- Authorizes $50 million per year for FY 2021 - 2024 for ACOE to "*enter into partnerships with applicable States and other Federal agencies to carry out actions to prevent the introduction of, control, or eradicate invasive species that adversely affect water quantity or water quality"* in the Platte River Basin, the Upper Colorado River Basin, the Upper Snake River Basin, and the Upper Missouri River Basin. ACOE shall give priority to projects that are intended to control or eradicate Russian olive (*Elaeagnus angustifolia*) or saltcedar (of the genus *Tamarix*).
- Authorizes $10 million for the Secretary of the Interior, acting through the Director of the U.S. FWS, to establish a pilot program "*to remove invasive plant species in riparian areas that contribute to drought conditions*" in the Lower Colorado River Basin; the Rio Grande River Basin; the Texas Gulf Coast Basin; and the Arkansas-White-Red Basin; and where appropriate, to replace the invasive plant species with ecologically suitable native species and to maintain and monitor those riparian areas.

- Authorizes $25 million for the Secretary of the Interior, acting through the Director of the U.S. FWS, to establish a pilot program "*to develop and carry out effective measures necessary to prevent, control, or eradicate aquatic invasive species in alpine lakes that are not located within a unit of the National Park System*".

Haaland Confirmed as Secretary of the Interior

Rep. Deb Haaland (pronounced HAH-lend) was confirmed by the Senate on March 15 by a 51 – 40 vote to lead the Department of the Interior. She is the first Native American to run the Department of the Interior in its 171 year history, and the first Native American Cabinet secretary in U.S. history.

Haaland was born in Winslow, Arizona and is an enrolled member of the Laguna Pueblo. At 28, she enrolled at the University of New Mexico, where she earned a Bachelor of Arts in English in 1994. She earned her J.D. in Indian law from the University of New Mexico School of Law in 2006, but is not a member of the New Mexico State Bar. Haaland served as the tribal administrator for the San Felipe Pueblo from 2013 to 2015 and was elected to a two-year term as chair of the Democratic Party of New Mexico before being elected to the U.S. House of Representatives in 2018 for New Mexico's 1st District. She was subsequently re-elected for a second term in the House in 2020 before being nominated for Interior Secretary

National Invasive Species Awareness Week (NISAW)- Part II

NISAW Part II - Outreach and Education – is **May 15-22, 2021** and will focus on local invasive species prevention, removal, and educational events. If you are coordinating or aware of invasive weed removal or educational events, please add it here. The North American Invasive Species Forum is also being held virtually during NISAW Part II. The Forum is an international event encompassing the interests of professionals involved in invasive species management, research, and regulation across North America. To learn more and register for the North American Invasive Species Forum, click here

The five webinars offered during awareness week will focus on invasive species prevention and control:
May 17: The Climate Crisis and Invasive Species
May 18: The Model Legislative Framework for State Aquatic Nuisance Species Programs
May 19: The Regulatory Process for Classical Weed Biological Control
May 20: Aquatic Plant Management Priorities
May 21: A Comparison of State Noxious Weed Lists and The Western Weed Action Plan

The May 20 webinar will be led by Ryan Wersal, an assistant professor at Minnesota State University and president of the Aquatic Plant Management Society (APMS). Wersal will provide an overview of APMS and current aquatic plant management issues. He also will discuss the need for increased research funding.

The May 21st webinar will be presented by **Jacob Barney**, an associate professor at Virginia Tech and Chair of WSSA's Noxious and Invasive Weed and Biocontrol Committee. His session will focus on variations in how states regulate noxious weeds, the challenges those variations pose and ways to bridge the gap.

National Invasive Species Awareness Week (NISAW): Part I

NISAW Part I was February 22-26, 2021 and included a policy focused webinar series during the week in which over 1,900 people registered. The U.S. federal agencies responsible for invasive species management in aquatic and terrestrial ecosystems, in general, have sufficient legislative authority from Congress to manage invasive species. However, federal invasive species programs remain **extremely underfunded**. In FY 2020, the Department of the Interior estimated it spent $143 million to manage invasive species for 400+ million acres of public lands. That's roughly 35 cents per acre for all invasive species research, prevention, EDRR, management and restoration. As invasive species stakeholders, we need to seek full appropriations as authorized for these programs. That was the central theme of the NISAW webinar I presented titled "Show Me the Money". The recorded presentations are available at: **www.nisaw.org/nisaw-2021/**.

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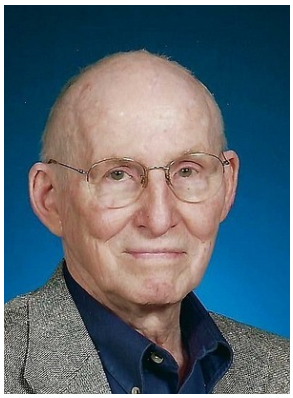
Obituaries

Dr. Bob Frans,



Robert "Bob" Frans, 93, long-time resident of Fayetteville, Arkansas passed away on January 11, 2021. He was born in Louisville, Nebraska, on April 19, 1927, to Charles Ernest Frans and Ruth Isabel Ingram, who preceded him in death as did his wife, Maria Theresa; his brother, Ronald Dale Frans; his sister, Jean Annette Bruce; and his son, Douglas John Frans.

Bob grew up in small towns in Eastern Nebraska where his father was a station agent for the Chicago, Burlington and Quincy Railroad. After graduation from high school in Beldon, Neb., Bob served in the U.S. Army for 2 years. After his honorable discharge he went on to further his education. He earned the degrees of B.S. in Agriculture from the University of Nebraska in 1950, M.S. in Farm Crops from Rutgers University in 1953, and his Ph.D. in Botany-Plant Physiology from Iowa State University in 1955.

Bob came to the University of Arkansas in 1955 as the first Weed Scientist in the state and as an Assistant Professor of Agronomy (now the Department of Crop, Soil, and Environmental Sciences). He was a highly effective researcher, teacher, and spokesman for agriculture and weed science, not only in Arkansas but in the Southern region of the United States, and in international agriculture. He was recognized for his leadership and activities in professional societies by being elected to various offices including president of the Weed Science Society of America, Southern Weed Science Society, Arkansas Agricultural Pesticide Association (AAPA; now Crop Protection Association), National Council for Agricultural Science and Technology, and Arkansas-East Bolivia Partners of America. He was awarded numerous honors including Elected Fellow and Outstanding Teacher Award from WSSA, Distinguished Service Award and Weed Scientist of the Year from SWSS, Service Award from AAPA, Outstanding Teacher Award from the Uof A Chapter of Gamma Sigma Delta, and Distinguished Service Award in Research from Arkansas Alumni Association. His many scientific publications contributed to increased crop productivity and decreased inputs for weed control for producers in Delta row crops. The integrated weed control programs in cotton and the establishment of herbicide evaluation trials for cotton, soybean, corn, grain sorghum, and peanuts provided extension personnel and producers up-to-date information on the latest weed control technologies. His perennial weed control studies led to valuable solutions for the severe problems of johnsongrass and bermudagrass, which had plagued producers for decades. To make these research results available to Arkansas producers, Frans established the annual publication “Recommended Chemicals for Weed and Brush Control” (“MP-44”). This publication is still revised annually, has become a prototype for similar publications in other states, and is available through County Agent Offices state-wide. Bob was one of the original leaders in the IPM (Integrated Pest Management) movement, which was established to minimize the use of chemicals, e.g., using lower herbicide rates for more sensitive weed species, spraying less herbicide by spot and banded applications, and integrating chemical and mechanical methods of weed control. He was also instrumental in establishing conservation-tillage systems in cotton and early research on herbicide-resistant weeds.

He was promoted to Distinguished Professor of Agronomy and Elms - Richard S Barnet, Jr. Chair of Weed Science in 1974. He retired after forty years of service as Emeritus Distinguished Professor of Agronomy. During his career Bob was invited to attend and speak at many international conferences and so was able to "travel the world." He became passionately involved with the Bolivian chapter of Partners of the Americas.

He was noted for his promotion of educational and professional diversity during the early days of racial integration in Arkansas. He mentored international as well as domestic students in the graduate-level Weed Science program. He advised 46 Masters and PhDs during his career. Under Dr. Frans’s guidance, the Arkansas weed science program became one of the most recognized and respected weed science programs in the U.S. and internationally.

Bob was a man of faith and the First Presbyterian Church of Fayetteville was an integral part of his life, especially his 52-year membership in the Chancel Choir. For several years he was a lay preacher to small congregations in the area. During his last few months, he spent his time reading books, as he loved to read. Bob attended a theology book club weekly at the United Campus Ministry Center for 50 plus years.

He is survived by two daughters from his first marriage to Marilee Nebelsick, Catherine Hall (husband Ben), Cyndy Binder (Allen); and three daughters from his marriage to Maria Theresa Villanueva, Veronica Croskrey (Nathan), Cecelia Callaway (Mike), and Isabel Pitts (Donnie). He is also survived by 22 grandchildren and 17 great-grandchildren.

Dr. David W. Hall

David W. Hall passed away on March 22, 2021. Son of a librarian and a biochemist, David graduated high school in Augusta, Georgia. He attended Georgia Southern College (now, University) on a tennis scholarship, majoring in Botany and minoring in Music. He also received a MS from GSU in Systematic Botany. David then spent 19 years at the University of Florida, completing his PhD in Systematic Botany with a two volume dissertation, "The Grasses of Florida," while serving as Director of the Plant Identification and Information Services. Following his stint at the University of Florida, he became a Senior Scientist for KBN/ Golder Associates, an environmental consulting firm, where he specialized in wetland identification and remediation. Since 1997, David owned and operated an environmental and forensic botany consulting firm in Gainesville, Florida.

Dr. Hall was recognized as the expert in the field of plant identification, wetland assessment delineation, threatened and endangered plants species, and forensic botany, while publishing 15 books, including: *Common Weeds and Wildflowers*; *Wildflowers of Florida and the Southeast*; *Grasses of Florida*; *Forensic Botany: A Practical Guide*; *Forensic Botany: Basics*; *Weeds of Southern Turfgrasses*; *Color Atlas of Turfgrass Weeds*; *More Color Atlas of Turfgrass Weeds*; *Florida Wetland Plants: An Identification Manual; Illustrated Plants of Florida and the Coastal Plain*; *Weeds in Florida*; and over 150 articles. While at the University of Florida, his responsibilities included plant identification and biology of plants with special emphasis on weeds and grasses. Dr. Hall accrued numerous awards for his botanic, forensic, agricultural, and avocational activities which included several Who's Who, Fellows, Distinguished Alumnus, plus Service, Achievement, and Hall of Fame awards. He held certifications as a Professional Wetland Scientist, and a Board Certified Forensic Examiner. He is past-president of the Florida Weed Science Society and served on many plant identification committees for the state of Florida as well as SWSS and WSSA. Dr. Hall also was past president of the Florida Tennis Association and for many years, very active in the US Tennis Association. Dr. Hall will always be remembered not only for his many plant ID talents, but also for his kindness, intelligence, professional curiosity, patience, and friendship.

Dr. Robert Loring Nichols

Bob Nichols earned his first paycheck at 13 and his last at 74. Had he not had ALS, *aka* Lou Gehring's disease, he was an excellent candidate to live to 100. He was diagnosed in Feb. 2020, declared 100% disabled in Jun., and ... He was born in rural Sussex County, New Jersey. He heard Dr. Martin Luther King speak in person, and the announcement of Pres. John Kennedy's assassination live on the radio. He graduated from Blair Academy in 1964 and from Yale College in 1968 with a concentration in economics and political science. He planned to attend law school, but went to war instead.

Bob Nichols joined the Army Security Agency, volunteered for, and served three consecutive combat tours in Vietnam – one in the Central Highlands, and two in defense of the Cambodian border. He was a Vietnamese language interpreter for a tactical intelligence organization. He held security clearances above Top Secret, and was prohibited from travelling to any communist country for the rest of his life.

He returned to the U.S. in 1972, lived in the Mt. Washington Valley of New Hampshire, worked as a carpenter, and read the words of Jonathan Swift, "If a man can make two ears of corn grow where before there was only one, he will have done more for mankind than the whole race of politicians. He resolved to study plants. With the G.I. bill, a tuition wavier from the state of Connecticut (CT), and the assistance of the faculty of the Univ. of CT College of Agriculture at Storrs, he achieved a Masters and Ph. D. in agronomy in 1977 and 1980, respectively. His dissertation was on the then radical notion to use a new herbicide, glyphosate, for planting without tillage.

Bob Nichols worked for USDA-ARS as the Southern Regional Forage Agronomist with a co-appointment with the Univ. of Georgia; for PPG Industries as a field development specialist and launched the soybean herbicide, lactofen; for F. Hoffman LaRoche coordinating field research in the Western U.S., managing a field station in Florida, and developing insect managing technologies in the Western Hemisphere. He headed the marketing of research services for Agri-Growth Research and managed four research farms in Illinois, Iowa, Minnesota, and Nebraska. In 1992 he joined Cotton Incorporated and served for 28 years as Director, then Senior Director of Agricultural and Environmental Research. He had no requirement to publish after 1984, but authored over 190 publications in agronomy, biochemistry, entomology, genetics, nematology, plant pathology, and weed science.

Bob Nichols considered his key expertise to be weed management and herbicide chemistry. He was a member of the

Southern Weed Science Society (SWSS) and the Weed Science Society of America (WSSA) since 1980. He chaired the SWSS's Herbicide Resistant Plants Committee, when glyphosate resistance was discovered, and its Science Policy Committee, when off-target movement of dicamba was a national controversy. He was a Fellow of the SWSS and winner of the society's Distinguished Service Award and its Regulatory Stewardship Award. He was a longtime member of the WSSA's Science Policy Committee and strong advocate for action, ethics, and scientific excellence.

Bob Nichols is survived by his loving wife, Carol Lee Nichols of Raleigh, North Carolina, five accomplished children who live in four states, CO, CT, GA (2), and WA; and five grandchildren with great potential. He lived enthusiastically and will be missed

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Dr. Walter (Walt) Arthur Skroch

Walt Skroch was an accomplished weed science extension specialist at NC State who impacted weed management practices in horticultural crops in NC and beyond. A native of Arcadia, Wisconsin, Walt received his bachelor's degree from the University of Wisconsin – River Falls and his M.S. and Ph.D. from the University of Wisconsin – Madison. He joined the faculty at NCSU in 1964 and served there until his retirement in 1994. He was an early innovator in the concepts of integrated weed management systems. This work led to a new and radical (at the time) concept – that some "weedy" vegetation in the field can actually be beneficial to crop production. Asking his "signature" question: "What is a weed to a tree?" Walt demonstrated that the widely held belief that bare ground was best for maximum crop production was simply not true. In fact, he showed that some crops, like apple trees and Fraser fir, actually do better with living ground covers. In particular, Walt developed the widely-adopted living ground cover suppression program for southern Appalachian Fraser fir Christmas tree production that has saved millions of tons of soil from eroding, reduced vegetation management costs, reduced pesticide use and increased biodiversity. For this unique work, in 2015 he was inducted into the Western North Carolina Agriculture Hall of Fame.

His extension publications on weed management in nursery crops were widely adopted and still serve as a template for nursery crop and landscape weed management guides. A few of his other "greatest hits" include: the first (that we are aware of) computer decision aid for weed control recommendations (run on a Tandy computer); design and testing of soil fumigation equipment for strawberry producers; alternatives to methyl bromide for soil fumigation; collaborative research leading to the registration of many herbicides for horticultural crops, and contributed in development of the Southern Weed Science Society's (SWSS) Weed ID manual. He served on the North Carolina Pesticide Technical Committee to help draft the N.C. Pesticide Law of 1972, which became a model for the nation. In addition, he developed the original state and national core manuals for pesticide applicator certification.

Walt Skroch advised 16 MS and Ph.D. students and innumerable Extension educators. He was a Fellow of the Weed Science Society of America, founding member and past-president of the Weed Science Society of North Carolina (WSSNC), and an active member of the SWSS. He received numerous awards including the Outstanding Extension Educator award from the American Society of Horticultural Science, Outstanding Extension Worker from NC State, the Porter Henegar Award from the Southern Nurserymen's Association, and Distinguished Service award from the WSSNC.

A fulltime resident of Ashe County since 1997, Walt was an active contributing member of the Ashe community, including his Episcopal church and the Peak Creek Ruritan Club. Walt is survived by his wife, Carol Pendergraft Skroch; three daughters, Denise and husband Kirk of Apex, Joan and husband Darren of Raleigh, and Tammy and husband Robbie of Laurel Springs; two sons, Tim and wife Sharon of Garner, and Terry and wife Leigh of Garner. Walt is also survived by one brother, Mark, two sisters, Pat and Barb, as well as nine grandchildren and one great-grandchild. Walt was preceded in death by three brothers, Harold, Al and Don, and one sister, Virginia.

Dr. Morris G. Merkle

Dr. Merkle was born July 23, 1934 in Lincoln, Alabama and raised on the family farm in Talladega County. He was the fifth of six surviving siblings. He received the B.S. degree (Agricultural Science) in 1955 and M.S. degree (Agronomy-Weed Science) in 1959 from Auburn University. From January 1956 to January 1958 he was in Germany with the 868th Field Artillery Battalion unit as a first lieutenant. He received the Ph.D. degree (Agronomy-Weed Science) in 1963 from Cornell University under Dr. Stanford Fertig. A fellow student said Morris took every chemistry course at Cornell with all A's. He stated that Morris was at a level by himself above all other students. Extracurricular activity was baseball where he was a proud rebel in Yankee land. He considered making a run for the minor league, but a more financially stable career prevailed. He also found the love of his life Jean. In the early 1960's Cricks and Watson received the Nobel Prize for describing the molecular structure of DNA or the double helix and Norman Borlaug was developing wheat varieties to feed starving nations. Dr. Merkle as a graduate student at Cornell University spent 6 months in Midland, Michigan at Dow Chemical learning how to run a new analytical instrument called a gas chromatograph. With that knowledge he was hired in 1963 by Dayton Klingman with USDA-ARS as part of a five member research unit at Texas A&M University to study and develop control programs for mesquite and huisache. Based on a very strong desire to teach students he transferred in 1966 to the Department of Soil and Crop Sciences at Texas A&M University. He taught his first two semester long weed science course in 1967. Mary Ketchersid was a student in that class and became his long time laboratory technician. The following year he offered Agronomy 450 (undergraduate) and Agronomy 650 (graduate) Chemical Weed Control classes. Based on counting to six numerically and chemically plus ten basic organic functional groups a student could draw the chemical structure from its chemical name for any herbicide. Probably the most widely drawn herbicide structure was 2, 4, 5-trichlorophenoxy acetic acid. His most well-known quote among several from his lectures was "if it looks like duck, and quacks like a duck, it must be a duck." Based on the chemistry the students have a vast amount of practical knowledge for use in both their professional and personal lives. During his teaching career he taught 1166 undergraduates and was the major professor for 84 M.S. and 53 Ph.D. students. He kept a personal list of the first and last name of every student he taught. His students are considered leaders throughout the world. His research program was second to none. His grantsmanship early in his career was very beneficial to the Department when funds were scarce. He served as President of the Southern Weed Science Society and was Fellow in the Weed Science Society of America. He received all the teaching awards provided by both the SWSS and WSSA as well as the University. Based on his vast knowledge he was a member of Operation Ranchland that developed vegetation control strategies for the U.S. Military during the Vietnam War. On a personal note he was a student of the stock market with a full understanding of its short comings. He appreciated compound interest. Morris found great pleasure in interacting with kids. When former students came by the office to visit and brought their children it was entertaining. One day a very young boy was wearing a Texas A&M/ Mickey Mouse tee shirt. Morris took great delight in trying to persuade him that he was wearing an "Aggie" shirt while he insisted it was a "Ticky Mouse" shirt. Before leaving each child was allowed to choose a golf ball or a tennis ball from his center desk drawer. Dr. Merkle took his professional career very serious but at 5 p.m. each day he let fellow staff know in a very joking manner that we were getting "whistle bit". The real reason for his prompt departure was to get on his bike, ride across campus, past the tennis courts, across the golf course and off campus to a dirt lot next to his home at 208 Rosemary Lane. On this lot kids from nearby neighborhoods gathered daily to play in-season sports. He actively participated and had the admiration of each individual. He not only taught technical skills but life skills that included their interactions with other individuals. Another of his well know quotes was "If a mule kicks you, it's the mules' fault the first time; the second time it's your fault." One individual that started on the dirt lot went on to have a professional sports career while others just have a pure appreciation for sports. For example, Tip Corrington played football at TAMU and signed with the Denver Broncos. Melinda Clark was on the TAMU track team and was an All-American high jumper. To our surprise Dr. Merkle choose to retire early in 1990 citing personal reasons. He had a very strong desire to retire back to the red soil of Alabama. But family was a top priority, and all of them resided in Texas. He stated that once he realized the only way he was going back to Alabama was in a pine box it was easy to buy a very nice home for Jean in College Station. During retirement he continued to ride his bike and run daily plus watch the stock market. Later in retirement Morris revealed that he had trouble making his feet go the direction he desired. The slow progression of Parkinson's had fully arrived. Not long prior to his death he issued another of his quotes "I have a cup of hope, but I have a bucket full of memories." Dr. Merkle went to meet his maker on May 17, 2020. His ashes will be spread over his mother and father's graves and the three generation Merkle farm in Talladega county Alabama. "Old Buddy" you will be missed, but not forgotten. Dr. Merkle is survived by his wife of 57 ½ years, Jean Carol; children, Charles Donald, George Ashley and Page Marie; grandchildren, Lance Andrew, Christopher Ryan (both juniors at TAMU) and Nicholas Kyle (future member of the Fightin' Texas Aggie class of '32