



Letter from the President

I hope everyone is surviving the summer. It seems like the only thing that hasn't changed this year is the weather. The SWSS summer board meeting was held in Knoxville, TN July 13 and 14th. I along with James Holloway and Cletus Youmans made it in-person. Jim Brosnan, Knoxville Local Arrangements, was also able to meet with us well. All the other board members including Kelley Mazur met via Zoom. The meeting went very well with a lot of comments and suggestions for this year's conference. I am sure most you have already heard we will do a virtual meeting in 2021.



First, I want to thank Dr. Tom Mueller and his wife Sara for the great meal and hospitality they provide James, Cletus, and me on Sunday evening. Tom and Sara have a warm welcoming home with excellent views out the back door. If you ever get a chance take a tour of their kitchen. Tom is a true craftsman. He built a fantastic Kitchen showplace with his handmade cabinets. I wish I had the talent and patience he has. We all work or have interest in Weed Science, and that is why we belong to the Southern Weed Science Society. The most important thing the SWSS has provided me through the years is a lifetime network of friends. Tom and Sara have impacted nearly everyone in the SWSS, and I thank them for their work with the quiz bowl and their dedication to the Southern Weed Science Society. From a personal standpoint, I thank them for their friendship.

First let me say, we did everything we could to salvage an in-person 2021 SWSS Conference. However, I don't think we have anyone in the society who is a fortune teller. Every turn was met with the potential loss of revenue due to the lack of attendees. If you ever have the opportunity to organize a meeting like the SWSS, the thing that will keep you up at night is the fear of not meeting the hotel room block. If the SWSS missed the designated number of rooms in the block it would be financially catastrophic to the society. No one on the board wanted this to happen, and to be honest, I didn't want this to happen on my watch. We will still have to pay penalties to the Hilton and the Knoxville Convention Center to exit the signed contracts. The total penalties will be somewhere between \$30,000 to \$40,000. I know this sounds like a lot, but if we had continued on with an in-person conference, and missed the room block we could be looking at a loss of well over \$120,000. Right now, I don't think anyone can say 100%, I will be there. We don't know what type

What's Inside

President's Letter	1
Annual Meeting Program Update	2
Call for Awards Nominations.....	3
People and Places.....	6
In Memoriam.....	6
Constitution and Bylaws	8
Officer Elections.....	8
Position Vacancy Announcements.....	12
Washington Report.....	16



The 2021 Annual Meeting is January 24-28, 2021.
The SWSS is Moving Obstacles with a 100% Virtual Annual Meeting!
Look for more details at: www.swss.ws

travel restrictions will be required in January. As a small society, we would never recover from this type loss. In the coming days, the SWSS Board will be evaluating 2021 meeting registration fees. I urge every SWSS member to please register for the 2021 meeting. If we get the same number of individuals who attended the 2020 meeting to register for the 2021 conference, we will recover most of the penalties we paid due to the cancellation. Registering for the meeting in 2021 is more important than ever. Please do what you can to help the society survive. The 2021 meeting will be our 74th meeting. Let's make sure we are around for another 74.

Dr. Cletus Youmans is putting together a different style of meeting than we have had in the past. In the tradition of SWSS Annual Conference, I believe the meeting will be educational and informative. We will do our best to keep the meeting simple and relatively short. We all have adapted during the COVID-19 crisis. I ask everyone to adapt to a different meeting format and embrace the SWSS mission, now and in the future. I hope and pray we can get back to the "Old Normal" in 2022.

Your past president, Dr. James Holloway has put together an outstanding group of candidates for open board seats for 2021. Please look at the biographies on each candidate in this newsletter and vote when the ballot opens. Please let us know if you are interested in being a board or committee member in the future. The SWSS will not survive if we don't continue the tradition of outstanding volunteers to help run the society.

The Southern Weed Science Society is a scientific society with an emphasis on weed management across a variety of landscapes and environments. As with the diversity of the weeds we study; the SWSS encourages a Diverse and Inclusive membership. Everyone is welcome, and as President of the SWSS I urge everyone to bring a new member into the society. We have a great deal to offer.

I want every member to know how much I appreciate the opportunity to serve the SWSS as President. The past few weeks have been difficult, and I truly regret the decisions we had to make. I hope we never have to make this choice again. If you have any questions or concerns please email me at ewebster@agcenter.lsu.edu. Many of you have my phone number, please feel free to call anytime.

Program Chair Update Clete Youmans

Regarding the Program of the 2021 SWSS Annual Meeting: No news here; Yes there is news, and a meeting coming in January like we've not seen before in our society. There are new challenges everywhere, from the annual site location cancellation, to the newly planned 2021 Annual meeting being 100% Virtual. We believe the virtual program for 2021 will support your desires, such as being shorter than normal, include graduate student papers and posters, a student paper/poster contest, and it will allow posters from all members. Can you imagine thinking nothing has changed in your life the past nine months? We have been busy hurdling obstacles in the program since visits to Knoxville in Feb. of this year. Foreseeing these challenges is why our theme for the 2021 meeting became "Moving Obstacles". The events before the summer board meeting were clearly dictating there would be obstacles to the 2021 meeting. It has been a pleasure to see our board members support you, we've heard excellent program ideas, some people have provided additional valuable time driving those best ideas to support you, and all have been on one team, the SWSS team. I hope you will find the 2021 program one that will not bore you, not be an endurance test, save you travel time and money, and provide you a great value. The Program committee believes you will enjoy the fast-paced meeting and following the meeting we feel you'll look back knowing this was a great fit for you. Committees: Meetings within each committee will take place virtually, likely utilizing Zoom or Webex. Chairpersons of each committee will have a flexible date to hold their meetings, one that best fits their members. These meetings are to be completed by Friday January 22, 2021. The Student Contest committee can also meet early (for training judges, etc.) but need to report all poster and paper scores by Monday January 25, at 6pm.

General Program Timelines: The SWSS committees will meet virtually before the meeting begins. The Executive board will begin the meeting on Sunday January 24, 2021 followed with the Monday morning (8am–lunch) and afternoon (1:00–4:45pm) graduate student paper contest. Tuesday Jan. 26 will include

another SWSS board meeting (am), followed by the General Session (1–3:30pm), Business meeting (3:30–4:10pm), Awards (4:15–5:00pm), and the Conclusion. Wednesday Jan. 27 will only include an 8–11am Executive Board meeting.

Call for Posters (includes contest and non-contest): You are invited to submit a title for a poster to be presented at the 2021 SWSS Annual Meeting, a Virtual Meeting. Poster submissions are open to grad students and the general membership. Only one poster can be presented by a graduate student to be entered into the contest. Rules of the Student Contest can be found in the Manual of Operating Procedures of the SWSS. Poster titles need to be submitted to the SWSS website between October 17 and November 9, 2020. Directions on submitting the poster title will be emailed to you in late Sept. You can expect to use PPT to build the poster and download posters in the late fall as a PDF file. For judging purposes, as in the past, posters will not require an explanation by the author. Deadlines for poster titles are November 9, 2020 and for poster abstracts is January 11, 2021. All posters must have an abstract submitted on time to have the poster available for viewing by the membership. Posters will be viewable before the annual meeting (between January 11 and January 22). Judges can view the posters during this time- before the meeting. This will allow the judges to review the posters and report their findings by Monday January 25. Posters will remain viewable at the SWSS website for a short time following the annual meeting.

Call for Papers (student contest): You are invited to submit a title for a paper to be presented at the 2021 SWSS Annual Meeting, a Virtual Meeting. There will be a maximum of 54 papers allowable in the entire contest on Monday January 25, 2021. The Paper contest will be 100% virtual papers from graduate students only. The first 54 papers submitted will be given preference for virtual presentations. If more than 54 students submit a paper, those submitting later (after the first 54) will be requested to present a poster. Graduate students submitting an accepted paper will be presenting live virtual papers (15 minutes as usual) likely from their home or office via Zoom. Regular members are not presenting a live virtual paper. Papers can be built using PowerPoint® or other formats since the paper will be run from your computer. If a graduate student presents a live virtual paper, a poster by the same lead author will not be allowed. The same rules exist as before: students within the same degree who have won a paper contest cannot present a paper in 2021 but can submit a poster (if they have not won in the poster contest with the same degree). Deadlines for paper titles are November 4, 2020 and for paper abstracts is January 11, 2021. You must have an abstract to have the paper presented live to the membership. Papers will be live, and all live papers are on Monday January 25, 2021. There will be hosts/co-hosts utilizing Zoom to bring support your virtual paper.

Student Contest (General): The past formats will be followed closely for the 2021 meeting. Downloading the posters will be different, and a site is being built to submit papers and abstracts within the SWSS website. After the late September email previously mentioned, if you have additional questions about the contest or rules, please contact Pete Eure, Student Contest Chair (pete.eure@syngenta.com). If you have questions about “Directions to Submit a Title, Poster, and Abstract” for the 2021 meeting, please contact Clete Youmans, Program Chair (cletus.youmans@basf.com or 731-445-8880).

Call for Nominations - 2020 SWSS Awards - James Holloway

Please see the listings below describing our award nomination procedures for 2020. For some awards, a short summary document such as a resume or CV may be attached. Please see the description below for details. The deadline for nominations is Friday October 2, 2020. Please send your nominations to the Awards Subcommittee Chair listed below:

Fellow Award – Brad Minton, Brad.Minton@syngenta.com

Outstanding Educator Award – Peter Dotray, Peter.Dotray@ttu.edu

Outstanding Young Weed Scientist Award* - Hunter Perry, Hunter.perry@corteva.com

Outstanding Graduate Student Award** - Nicholas Basinger, Nicholas.Basinger@uga.edu

Excellence in Regulatory Stewardship Award – Cherilyn Moore, Cherilyn.moore@syngenta.com

* denotes 2 awards, one for industry and one for academia

** denotes 2 awards, one for MS student and one for PhD student Please nominate your SWSS colleagues for these important awards.

Feel free to contact me if you have any comments, questions, or concerns at james.holloway@syngenta.com or at 731-803-1730.

The SWSS **Fellow Award** is the highest honor the Society presents. The purpose of this award is to recognize those members who have made significant contributions to the Southern Weed Science Society and advances in the discipline of weed science in the SWSS region. To be eligible for the SWSS Fellow Award, the potential recipient must:

- Have been an active member of the SWSS for >20 years. • Be at least 50 years of age at the time of the annual meeting.
- Have made significant contributions of service to the SWSS (including but not limited to: serving on committees or being an officer, hosting SWSS contests, judging at the paper/poster contest, etc.)
- Contributed substantially to the success of his/her company, university, and/or government agency and to advance the discipline of Weed Science in the SWSS region.
- Whereas the Fellow Award has been renamed to envelope both the Distinguished Service and the Weed Scientist of the Year Awards, previous recipients of these awards are not eligible for the SWSS Fellow Award.

The nomination must be by letter and 2 supporting letters are required (All sent in a single pdf file to the Committee Chair, Brad Minton). The nominating letter should explain in general and specific terms the outstanding contributions of the nominee. The nominating letter should contain a listing of the various contributions to the SWSS, but is limited to 2 pages in total length. The 2 supporting letters are also limited to 2 pages in length for each letter. A summary document describing the nominee (such as a CV) may be added but is limited to a total of 3 pages in length. The contributions must be in regards to SWSS and weed science in the SWSS region.

Awards Committee members are not eligible during their time of service on the awards committee. The award is limited to a maximum of 0.4% of total SWSS membership each year (rounding up from the calculated percentage). The Award recipient(s) receive a plaque at the annual meeting, and each subsequent year all winners will be recognized by a Fellows ribbon to wear at the annual meeting.

The SWSS Outstanding Educator Award (OEA) is presented annually to a weed scientist in recognition of outstanding contributions to the Society and Weed Science through education. The Award is to be given in recognition of a broad range of activities including formal classroom teaching; outreach and public service or extension including workshops, seminars, short courses, or other means of communication; mentoring undergraduate and graduate students; publication of scholarly work in journals, books, or reviews. To be eligible for the OEA award, the potential recipient must:

- Must be a voting member of SWSS in the year of nomination.
- Must be an active member of SWSS during the last five (5) years.

The nomination must be by letter and 2 supporting letters are required. (All sent in a single pdf file to the Committee Chair, Peter Dotray). The nominating letter should explain in general and specific terms the outstanding educational contributions of the nominee. The nominating letter should contain a listing of the various educational contributions, but is limited to 2 pages in total length. The 2 supporting letters are also limited to 2 pages in length for each letter. A summary document describing the nominee (such as a CV) may be added but is limited to a total of 3 pages in length. Possible information includes classes taught, number of graduate students advised, etc. Award is limited to one award per year. The Award recipient receives a plaque at the annual meeting and a \$1,000 cash award presented at the annual meeting.

The SWSS **Outstanding Young Weed Scientist Award** (OYWSA) is presented annually to a young weed scientist one from academia (teaching, research, extension) to be sponsored by BASF and one from Industry to be sponsored by the SWSS in recognition of outstanding service to weed science. To be eligible for the OYWSA, the potential recipient must:

- Must have been a voting member of the Society for at least three of the last five (5) years and must be a voting member of the Society in the year that the person is nominated for the award.
- Must be 40 years of age or younger on January 31 of the year she or he receives the award.
- Must have completed at least five (5) years' work in weed science other than that related to academic studies.
- Previous recipients of this award will be ineligible for re-nomination.

The nomination must be by letter and 2 supporting letters are required. (All sent in a single pdf file to the Committee Chair, Hunter Perry). The nominating letter should explain in general and specific terms the outstanding contributions of the nominee. The nominating letter should contain a listing of the various contributions to the SWSS and to the discipline of weed science, but is limited to 2 pages in total length. The 2 supporting letters are also limited to 2 pages in length for each letter. A summary document describing the nominee (such as a CV) may be added but is limited to a total of 3 pages in length. The contributions must be in regards to SWSS and weed science in the SWSS region. Awards Committee members are not eligible during their time of service on the awards committee. Award is limited to two awards each year, one award to an industry member and one to an academic member. The Award recipient(s) receive a plaque at the annual meeting and a \$1,000 cash award by BASF.

The SWSS **Outstanding Graduate Student Award (OGSA)** (one each for students at the MS level and the PhD level) - These awards are sponsored by the SWSS Endowment Foundation and consist of a \$400 cash award and a plaque for MS level and \$400 cash award and plaque for PhD level. The awards are given annually to a graduate student (one at the MS level and one at the PhD level) who has demonstrated outstanding performance in graduate studies and related weed science activities. Winners at the MS level are not eligible for this award at the PhD level. Students must have received the degree for which they are nominated since the previous SWSS Annual Meeting. To be eligible for the OGSA, the potential recipient must:

- Must be enrolled as a graduate student in the degree program for which she/he is nominated within the calendar year prior to the SWSS annual meeting in January.
- Have actively participated in SWSS sponsored activities such as the annual meeting, weed contest, student paper contest, or committee work.
- Must have been a member of SWSS during their time as a student at an SWSS member institution.

The nomination packet should include a nomination letter, 2 supporting letters, 1-3 page CV, and an unofficial copy of the students transcripts are required. (All sent in a single pdf file to Committee Chair, Nick Basinger). The nominating letter should explain in general and specific terms the outstanding contributions of the nominee. The nominating letter should contain a listing of the various contributions to the SWSS, but is limited to 2 pages in total length. The 2 supporting letters are also limited to 1 page in length for each 17 letter. One of the letters (nomination or supporting) must be from the student's advisor at the time of the nomination. A summary document describing the nominee (such as a CV) should be limited to a total of 3 pages in length. Transcripts of the student, including a listing of courses taken and grades earned should be included with the packet. Unofficial copies are acceptable, but the advisor agrees that the transcript represents the actual course of study of that student. Students of Awards Committee members are not eligible during their time of service on the awards committee. Award is limited to two awards each year, one for MS student and one for PhD student. The Award recipient(s) receive a plaque at the annual meeting and a cash award.

The **Excellence in Regulatory Stewardship Award (ERSA)** is for specific collaborations in the emerging applications of science and technology that require regulatory and stewardship protocols. This award recognizes scientists that demonstrate great interaction and collaboration between public and private institutions, establish multiyear outreach and support of the new technologies, and provide nonbiased feedback while extending research findings to the scientific and farming communities through publications and extension activities. Eligible nominees include industry personnel, primary research/extension project leaders, and primary graduate students actively involved in conducting the research. The nomination must be by letter and 2 supporting letters are required. (All sent in a single pdf file Committee Chair, Cheryl Moore). The nominating letter should explain in general and specific terms the regulatory stewardship contributions of the nominee. The nominating letter should contain a listing of the various regulatory stewardship activities performed and how they relate to the discipline of weed science, but is limited to 2 pages in total length. The 2 supporting letters are also limited to 2 pages in length for each letter. A summary document describing the nominee (such as a CV) may be added but is limited to a total of 3 pages in length.

The selected program will be awarded a plaque and monetary awards are to be allocated as follows: Principal Investigator, \$2000, and remainder of the graduate team (\$250 each), to a maximum total award of

\$3,000 unless extenuating circumstances. The graduate students should be the primary researchers and does not include technicians. Team members should be named during the nomination process. If a project has two lead PI's they should be awarded and the primary funds divided evenly. Graduate students providing minimal assistance should not be nominated.

The Excellence in Regulatory Stewardship Award (ERSA) is sponsored by Bayer CropScience and awarded yearly for five years starting in 2017.

COVID-19 Pandemic Effects 2020 Weed Contest

Dear SWSS Membership,

Due to the unfortunate impacts of the COVID-19 pandemic, the SWSS and Corteva will have to cancel the contest for 2020. After seeking out feedback from the University Weed Team coaches and the Corteva Southern Research Center on their capabilities and/or limitations for competing and hosting the contest this is the best move for the safety of all involved during these difficult times.

However, Corteva Agriscience is committed to supporting the SWSS and hosting the contest at the Southern Research Center in Stoneville, MS in August of 2021.

We hope that everyone is staying safe and that things will hopefully return to more normal conditions in the near future.

Drew Ellis, Weed Contest Chairman

People and Places

Dr. Scott Senseman has been named the Interim Extension Dean after having served for 6 years as the Head of the Plant Sciences Department.

Dr. Bob Hayes will be retiring September 30 after 3.5 years as a weed scientist at University of Kentucky, 24 years as a weed scientist at University of Tennessee, and then 18 years as Director of the University of Tennessee West Tennessee AgResearch and Education Center.

Also, Dr. Bob Scott is now Senior Associate VP-Extension & Director of the Cooperative Extension Service as of July 1.

In Memoriam

Note of Remembrance

Dr. Morris G. Merkle

By J. Mike Chandler

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).

Constitution and Bylaws Committee Report

August 2020 SWSS Newsletter

The updated SWSS Manual of Operating Procedures is now available on the society website. This document contains the Constitution, Bylaws, and operational guidelines for officers, the Board of Directors, and all committees. In addition, guidelines and scoresheets for the Graduate Student Presentation and Poster contests are included in the Manual of Operating Procedures.

A new addition to the Manual of Operating Procedures is the Code of Ethics. This was modeled after the WSSA Code of Ethics. The SWSS Code of Ethics outlines professional standards of ethics and behavior at SWSS functions. The SWSS Code of Ethics and inclusion in the Manual of Operating Procedures was approved by the Board of Directors in July 2020.

With the decision to have a virtual SWSS conference in 2021, there needs to be great flexibility in overall meeting structure, committee functions, how graduate student contests are conducted, and countless other processes. The Manual of Operating Procedures is a flexible document that can be easily adapted according to need. To that end, please be aware of deviation from normal SWSS operations related to the virtual conference in 2021.

It is worth noting that changes to the SWSS Constitution and Bylaws require a different and detailed process, including a vote by the general membership at the business meeting. Changes in these documents are not anticipated this year.

It's SWSS Officer Election Time

VP – Industry

Eric Castner

Eric Castner is the Western Regional Technical Manager for FMC and resides in Pauls Valley, OK where his current responsibilities include technical support of new and existing FMC products as well as leading a team of FMC Technical Service Managers in the Western US. Prior to his career with FMC, he spent 1.5 years with Corteva Agriscience as the Southern and Specialties Integrated Field Science Leader and 28 years with DuPont Crop Protection as a member of the US Field Development organization and Southern Field Development Manager. While at Corteva and DuPont, his responsibilities included oversight of the research and development effort in the Southern US as well as leading the Field Development team in this geography. Prior to moving to Texas in 2001, Eric worked for DuPont as a Field Development Representative in Louisiana (1993-2001) and as a Sales Representative in Columbia, SC (1990-1993).

Eric received his B.S in Agronomy from Oklahoma State University in 1986 and his M.S. in Agronomy – Weed Science from Oklahoma State University in 1988. His first became member of the Southern Weed Science Society in 1986 and continues to be active in the society and currently serves on the SWSS Board in the capacity of Industry Member at Large.

Eric was the President of the Texas Plant Protection Association (2015) which is comprised of approximately 300 members representing university research and extension, independent consultants, farmers as well as the manufacturers and retailers of agricultural products. Eric continues to be very active in the Texas Plant Protection Association where he currently serves on the board of directors. While in Louisiana, Eric was very active in the Louisiana Plant Protection Association where he served as President in 1998.

Eric has been married to his wife, Lori for 35 years and they have two sons. Their oldest son, Matt is a Mechanical Engineer (OSU – 2014) and resides in Broken Arrow, OK and their youngest son, Mason is a graduate of Oklahoma State University - Plant and Soil Science and is working towards MS and PhD degrees in Weed Science at the University of Arkansas. Lori is beginning her 30th year as an elementary teacher and teaches in Elmore City, OK.



Jacob Reed

Jacob Reed is a Trait Development Site Manager with BASF Corporation in Lubbock, Texas. He is a native of Canadian, Texas. Jacob received his B.S. with a double major in Science and Religion from Wayland Baptist University in 1998, his M.S. in Plant Breeding and Genetics from Kansas State University in 2001, and his Ph.D. in Plant and Soil Science from Texas Tech University in 2012. Jacob spent eight years at Texas AgriLife Research, working in peanut physiology and weed science and being honored with Wayland's Distinguished Young Alumni Award and the Texas A&M Department of Soil and Crop Science Special Achievement Award for Graduate Research Support. He has worked for BASF for seven years and previously managed field research trials in Texas, New Mexico, and Oklahoma. In his current role, Jacob is responsible for managing a Trait Development research site and oversees site operations, safety, budgets, and training. He is a member of the Weed Science Society of America, the Southern Weed Science Society, and Gamma Sigma Delta Honor Society of Agriculture. He is very active in the SWSS serving as chair of the Sustaining Membership Committee, member of the Finance and Continuing Education Units Committees, and volunteer judge for the Graduate Student Contest. Jacob is married to Georgia and they have two daughters and a son.



Member at Large – Industry

Andy Kendig

Andy Kendig received a BS in Agriculture (Agronomy) from the University of Missouri in 1988, Worked two years in the lawn-care industry and then completed MS and PhD degrees at the University of Arkansas in Agronomy (Weed Science). From 1992 he was an Extension Associate and Extension Assistant Professor at the University of Missouri Delta Research Center managing a research and extension program in cotton, rice, soybean, corn and winter wheat. His research focused on economical and environmentally sound weed control programs with a strong emphasis on herbicide resistance as well as postemergence use patterns with imazethapyr in imidazolinone-resistant rice. In addition to a traditional extension program in Missouri and the Mid-South, he developed a new training program at the University of Missouri Delta Center for professional crop advisors, was field day chair, supervised two MS students and served on graduate committees of five additional students. In 2018 he became an adjunct professor with the University of Missouri to serve on additional degree committees. Since leaving he has worked in development and tech service roles with Monsanto, Cheminova, UPL and ADAMA.



His professional activities and service roles include the board of directors of SWSS, NCWSS, Rice Industry Outlook Conference, Missouri Certified Crop Advisor Board (Chair from 2001-2001), and Missouri Agriculture Industries Council. He was program chair for the Beltwide Cotton Conference Weed Science Sessions (1999 and 2000), Rice Technical Working Group Weed Science Sessions (2000) society, SWSS Education Regulatory Program (2001), SWSS New Developments from Industry (1997) and the NCWSS New Developments from Industry for 2018. He has been a member of the SWSS resistance committee from 1994 to present (Secretary and Chair in 1997 and 1998), Computer application committee chair from 2005 to 2007, volunteered at SWSS and NCWSS contests and hosted the event in 2000.

Bruce Kirksey

K. Bruce Kirksey, Ph.D. is Director of Farm and Research at Agricenter International where he manages the farm and conducts field research trials on 600 acres. He works with all segments of the agriculture industry as he establishes product development, variety testing, and new crop interests on corn, cotton, soybeans, wheat, rice, and other crops. In his career, he has been involved in research and development with several companies and has over 30 years of experience in experimental trials. Kirksey has a B.S. in Agriculture from the University of Tennessee at Martin and a M.S. and Ph.D. in Plant and Soil Science from the University of Tennessee at Knoxville. Kirksey is active in presenting papers at research conferences and is involved in many professional organizations such as the Weed Science Society of America, Southern Weed Science Society, National Cotton Council, American Seed Trade Association, Mississippi Seedmen's Association, Southern Seed Association, Tennessee Agricultural Production Association, and the Memphis Agricultural Club.



Member at Large – Academia Tom Barber



Tom received his M.S degree in Weed Science from University of Arkansas in 2000 and Ph.D. in Weed Science from Mississippi State University in 2004. In 2004 he accepted a position as Assistant Professor Extension Cotton Specialist for Mississippi State University. In 2007 he moved back to his home state of Arkansas and held an Associate Professor Cotton Extension Agronomist position with the University of Arkansas System Division of Agriculture until 2012. He currently serves as Professor and Extension Weed Scientist with the University of Arkansas System Division of Agriculture and Director of the Newport Extension Center. Tom's extension and applied research program focuses on weed control and weed resistance management outreach in Arkansas. Each year he conducts over 100 applied research trials in all major Arkansas row-crops including: corn, cotton, grain sorghum, peanut, rice, and soybean.

Tom has been an active member of SWSS since 1998 and has volunteered to judge numerous years for the student paper and poster contest. He has served as vice president and president of the graduate student organization, on the Sales Coordination committee, Local Arrangements committee, and as chair of the poster session. He currently serves on the Sustaining Membership committee, Continuing Education committee and the Finance committee.

Jim Brosnan

Dr. Brosnan is a Professor in the Plant Sciences Department at the University of Tennessee (UT) and Director of the UT Weed Diagnostics Center. In this role, he leads research, extension, and diagnostic programs targeting the needs of Tennessee's \$5.8 billion turfgrass industry.

Dr. Brosnan maintains an active research program focused on control of problematic weeds in turfgrass systems, particularly biotypes evolving herbicide resistance. Efforts have led to authorship of over 100 peer-reviewed scientific journal articles in his career and mentorship of six M.S and Ph.D. students, all whom moved into positions within academia or industry.

Dr. Brosnan is an active member of the Weed Science Society of America (WSSA) and the Southern Weed Science Society (SWSS). He currently serves on the SWSS Board of Directors, several WSSA committees, and has been



Associate Editor for Weed Technology. In his career, Dr. Brosnan has been recognized with the Northeastern Weed Science Society (NEWSS) Outstanding Researcher Award, the NEWSS Outstanding Educator Award, as well as the SWSS Outstanding Young Weed Scientist Award. He was also the recipient of the Crop Science Society of America Young Crop Scientist Award, as well as the Sports Turf Managers Association Dr. William H. Daniel Award, the highest honor their association bestows upon an educator. Dr. Brosnan serves as an advisor to the Tennessee Turfgrass Association Board of Directors, and is actively involved with the Golf Course Superintendents Association of America, Sports Turf Managers Association, and Turfgrass Producers International. He has consulted at multiple venues on the PGA Tour (including several major championship host sites) in addition to National Football League franchises.

Endowment

Sandeep Rana

Dr. Sandeep Rana grew up in a family of agricultural researchers and administrators on the campus of CCS Haryana Agricultural University (HAU), a public-funded agricultural university located in Hisar, Haryana, India. He was destined to become an engineer but some forward-looking conversations with his Plant Pathologist father motivated him to pursue a career in agricultural sciences instead. He still considers that to be the best career decision he has made so far. Sandeep completed his B.Sc. (Honors) in Agriculture and started with an M.S. degree in Horticultural Biotechnology at CCS HAU before coming to the USA to start his journey as a weed scientist.



In 2010, Sandeep moved to University of Arkansas to pursue his M.S. in Weed Science under the guidance of Dr. Jason K. Norsworthy. After completing the M.S. in 2013, Sandeep went ahead to earn his Ph.D. in Turfgrass Weed Science (2016) from Virginia Tech under the direction of Dr. Shawn D. Askew. He also spent a short but fruitful time at North Carolina State University working with Dr. Wesley J. Everman as a Postdoctoral Research Scholar (2017). In fall 2017, Sandeep started his professional career as an Agronomic Research Manager in Galena, MD, with Monsanto Company. With the long-term goal of contributing to cutting-edge research and production technology that address critical needs of productivity and sustainability of global agriculture, Sandeep currently serves as the North America Agronomic Research Lead for Bayer Crop Science. In this role, Sandeep provides strategic, technical, and people leadership to a team of scientists that aid in field testing, protocol development, and trial execution of new biotechnology traits, crop protection products, and system improvement concepts. He works with cross-functional and multi-disciplinary teams and acts as a liaison between applied agriculture and next-generation biotechnology and precision agriculture tools. To date, Sandeep has authored and co-authored 8 peer-reviewed journal articles, over 60 abstracts, 18 extension and outreach publications, and over 50 extension and other scientific presentations. He thoroughly enjoys reviewing scientific articles and have reviewed over 30 papers across 6 journals and serve as an Associate Editor for Agronomy Journal and Open Agriculture Journal.

Sandeep considers SWSS as his home society and has been actively involved in numerous SWSS activities since his graduate school days. He has learned a lot from this society and its extremely talented members. Sandeep is always ready to give back to the society in whatever way he can to help make SWSS members experience, especially students, at least as enriching as the one he continues to have. Because of the current COVID-19 pandemic, Sandeep is happily stuck in Middletown, DE, with his beautiful wife, Trisha Sanwal Rana, and a handsome 8-month-old son, Aveer Rana. Sandeep and his family will relocate to Chesterfield, MO for his new role as soon as things start to get back on track.

Adam Hixson

Adam is currently a Technical Service Representative with BASF Corporation responsible for numerous crops, including cotton, corn, sorghum, wheat, alfalfa, sunflowers, pecans, and many others. His territory includes West Texas, Oklahoma, and New Mexico. He has been with BASF for 12 years, spending his first 3 years in Raleigh, NC as a part of the Research and Development group working as a project leader in Soybean Herbicide Development. Adam has a B.S. degree in Entomology from Texas A&M University (2000), a M.S. in Nematology from University of Florida (2003), and Ph.D. in Weed Science from North Carolina State University (2008).



Adam has been involved in the SWSS since 2003, both as a graduate student and industry representative. He served as the Graduate Student Organization president in 2007-2008 where he developed a deep appreciation for the society and its mission to provide solutions to growers' ever-changing weed challenges. He has served as graduate student contest judge numerous times giving him the privileged opportunity to interact with the future leaders in the Weed Science discipline. Adam currently resides in Lubbock, TX, the center of the largest cotton patch in the world, where he enjoys spending his free time with his wife, Kelly, son, Chase, and daughter, Kylie.

Position Vacancy Announcements

Technical Services Manager (TX/NM Territory) – Job Description

<https://jobs-fmc.icims.com/jobs/9278/technical-services-manager/job?branding=live>

Overview:

FMC Corporation is a leading specialty company focused on agricultural technologies. FMC provides innovative and cost-effective solutions to enhance crop yield and quality by controlling a broad spectrum of insects, weeds and disease, as well as in non-agricultural markets for pest control.

FMC is a globally diverse organization that offers its employees exciting opportunities to work on challenging projects that are important to the achievement of our strategic objectives. Your education and professional experience are valued and put to use from day one. Your success at completing key initiatives can result in a varied, progressive and fulfilling career with FMC.

With a corporate culture of innovation, integrity, responsibility and customer intimacy, we foster “The Right Chemistry” in everything we do. We are looking for people to join us in creating, developing, and improving our products, our processes, and our markets. If you are ready to make a difference every day, FMC is ready to talk to you.

Responsibilities:

The TX/NM Technical Service Manager handles all the technical support functions for his/her area of on behalf of FMC. This person works closely with the retail market managers and the regional business manager in the region. The grant in aid support to the universities flows through the Technical Services Manager as does training presentations, localized sales tools, and customer complaints. The TSM works closely with the other technical support personnel outside the local geography as well as the marketing, regulatory and product development groups. The TSM will work closely with the Regional Technical Manager to insure the technical focus of the region is in harmony with the technical focus across NAC.

- Maintain strong technical knowledge of commercial, new chemistries & other technology impacting the business.
- Build and maintain strong working relationships with University Extension personnel and other important

influencers in the territory to ensure they are adequately prepared to recommend FMC products upon launch and that FMC and our products are represented fairly in publication and in live field or industry events.

- Develop, execute & supervise appropriate support activities aligned with key initiatives as outlined in the TSM Goals and Objectives.
- Work hand in hand with Product Development teammates to ensure testing programs are aligned with market trends and that the Technical Service Manager is well educated regarding development projects as launch time approaches.
- Manage technical expense, service to sales dollars & product demo budget consistent & aligned with key regional initiatives.
- Provide technical product training & give regional guidance on complaint handling.
- Develop, implement & supervise GIA influence plans that are aligned with regional sales and marketing objectives.
- Develop various training modules & take the lead in providing technical consulting & training to internal & external groups. Special attention needs to focus on new product launches & leading the technical transfer of information to RMM's & key customer groups.
- Provide necessary proof of validation (thru the GIA plan) for label updates or amendments and assist regulatory department by writing use instructions for same.
- Production of sales tools such as newsletters, recommendation sheets and other sales collateral material.
- Carefully review, comment and approve technical, sales, marketing and or advertising communications as assigned.
- Continue to strengthen the communication between other regional technical support groups and internal functional groups.

Required Education:

- MS in Entomology, Plant Pathology/Physiology, Weed Science, Agronomy or other agricultural/related science or equivalent experience.
- PhD preferred.

Qualifications:

- 2-10 years' experience in technical support, selling chemical crop protection, seed or agronomy services.
- Certified Crop Advisor or equivalent certification desired.
- Excellent speaking, writing, and computer skills.
- Working knowledge of ARM.
- Capable of designing protocols and research projects that creatively and effectively demonstrate the features and benefits of agronomy inputs. Key contributor on complex projects.
- Proven ability to effectively transfer technically complex information to an audience with more limited technical expertise.
- Demonstrated ability to operate effectively under pressure , navigate contentious situations and resolve conflict.
- Ability to build and sustain strong business relationships with customers and teammates.
- Demonstrated ability to make decisions under minimum supervision; occasionally makes decisions of a complex nature within operating guidelines.
- Ability to develops and services business relationships with agronomy staff of key retail accounts.
- Demonstrated the ability to make independent judgments with review from management; makes decisions of a complex nature where independent judgment and creativity are required.
- Demonstrated ability to effectively negotiate with customers, teammates and management.
- Has lead projects or special assignment involving work outside the area/region.
- Serves as a valuable technical resource to others within the sales organization.
- Leads projects with little guidance required.

Please apply on website –

<https://jobs-fmc.icims.com/jobs/9278/technical-services-manager/job?branding=live&mobile=false&width=968&height=500&bga=true&needsRedirect=false&jan1offset=-300&jun1offset=-240>

Salary – Competitive based on experience

EEO

At FMC, diversity and inclusion are in our DNA. We are proud to be an Equal Opportunity Employer with a commitment to creating an inclusive workplace where all employees can thrive – regardless of race, gender, sex, pregnancy, gender identity and/or expression, sexual orientation, national origin or ancestry, citizenship status, color, age, religion or religious creed, physical or mental disability, medical condition, genetic information, marital status, military or veteran status, or any other basis protected by federal, state or local law. FMC also supports employee participation in company employee resource groups that celebrate the diverse backgrounds of our workforce by providing communities for employees to connect with each other and raise awareness throughout FMC.

FMC complies with federal and state disability laws and makes reasonable accommodations for applicants and employees with disabilities. If reasonable accommodation is needed to participate in the job application or interview process, please contact our Talent Acquisition department at talentacquisition@fmc.com.

Type of Position: Faculty - Non-Tenure (Research), Faculty - Tenure/Tenure Track

Job Type: Regular

Work Shift: Day Shift (United States of America)

Institution Name: Division of Agriculture of the University of Arkansas.

The University of Arkansas System Division of Agriculture is a state wide campus, with faculty based on University campuses, at Research and Extension Centers and in every Arkansas county. It consists of the Arkansas Agricultural Experiment Station (AES) and the Arkansas Cooperative Extension Service (CES), and is home to more than 1400 employees. The Division was established in 1959 and is headed by the Vice-President for Agriculture. The Division headquarters is located in Little Rock with the rest of the University of Arkansas System Administration. As an employer, the University of Arkansas System Division of Agriculture offers a vibrant work environment and a workplace culture that promotes a healthy work-life balance.

If you have a disability and need assistance with the hiring process and require reasonable accommodations, please contact the Division's Office of Affirmative Action at bbatiste@uaex.edu. For general application assistance or if you have questions about a job posting, please contact Human Resources at 501-671-2219 or 479-502-9820.

Department: Admin Assist Director 01

Summary of Job Duties: The University of Arkansas System Division of Agriculture seeks an energetic individual to provide exemplary leadership for the Rice Research and Extension Center (RREC) located near Stuttgart, AR. The Director will provide leadership for the multidisciplinary team of 11 research and Extension faculty and about 40 classified and non-classified staff, and hourly support staff. The Director will serve as a recognized authority and spokesperson for rice production, processing, and marketing. The successful candidate will lead the faculty and staff in funding, building, and maintaining strong, multidisciplinary research and extension programs that address applied and basic research topics relevant to Arkansas and mid-South rice industry needs.

Provide leadership in planning, integrating, and implementing the research and Extension programs conducted at the RREC. Duties will include administrative and fiscal leadership for the RREC personnel, programs, and physical resources; program planning, faculty development, and pursuit of extramural funding; coordination with other university programs, professional and governmental agencies, and industry groups. The successful candidate will be active in industry support groups including, but not limited to the Arkansas Rice Research & Promotion Board, Rice Technical Working Group, Arkansas Farm Bureau, USA, and Arkansas Rice Federation, and the Agricultural Council of Arkansas. The Director will help establish research and extension priorities related to rice production, processing, and marketing. The Director will also provide overall leadership for the planning and execution of the annual Rice Field Day.

The RREC is located in the heart of the Grand Prairie region of Arkansas and comprised of 600+ acres of irrigated acreage for field research and production, ten modern laboratories, six greenhouses, and a modern

office/conference center. The RREC facilities include a state-of-the-art greenhouse and growth chamber facility and a Foundation Seed Plant. Rice is the primary focus of the RREC research programs, but soybean, corn, grain sorghum, and wheat research and demonstrations are also supported. Foundation-grade rice, soybean, and wheat seed are produced, cleaned, conditioned, bagged, and sold at the RREC. The annual support and operations budget at the RREC exceeds \$1.3 million. The USDA's Dale Bumpers National Rice Research Center is co-located with the RREC. More information regarding the RREC is available at: <https://aaes.uark.edu/research-locations/rice-research-extension-center/>

Qualifications:

The candidate must have an earned Ph.D., or equivalent, in Agriculture or a closely related discipline, and an outstanding record of professional accomplishments that would qualify for the rank of Professor and a demonstrated ability to communicate effectively and persuasively with both scientific and stakeholder audiences. The candidate's record should demonstrate the administrative skills to lead a dynamic research and Extension program, including the ability to collaborate and communicate with a diverse clientele. Demonstrated fiscal and personnel management, excellence in written and oral communication skills, the ability to attract extramural funding, an interest in multi-disciplinary leadership, and coordination of diverse research interests are preferred. Prior experience in the Land Grant University System, including field and laboratory research and/or extension education, is desirable.

Additional Information: Special Instructions to Applicants: Required Documents: Please attach a CV, letter of Interest stating your vision for the position, and three letters of reference.

Contact: Dr. Nathan Slaton; nslaton@uark.edu ;479.263.1447

Salary is commensurate with experience.

Pre-employment Screening Requirements:

Criminal Background CheckThe University of Arkansas System Division of Agriculture may conduct pre-employment background checks on certain positions for applicants being considered for employment. The background checks may include a criminal background check and a sex offender registry check. Required checks are identified in the position listing. A criminal background check or arrest pending adjudication information alone shall not disqualify an applicant in the absence of a relationship to the requirements of the position. Background check information will be used in a consistent, non-discriminatory manner consistent with the state and federal law.

The University of Arkansas System Division of Agriculture commits itself to policies of affirmative action and diversity with respect to both employment opportunities and program participation. The Division complies with these policies not merely because of legal requirements, but because we believe that such practices are basic to human dignity. As such, the Division welcomes all applicants to apply without regard to race, color, sex, gender identity, sexual orientation, national origin, religion, age, disability, marital or veteran status, genetic information, or any other legally protected status. Candidates must have proof of legal authority to work in the United States on the first day of employment. All applicant information is subject to public disclosure under the Arkansas Freedom of Information Act.

Constant Physical Activity: N/A

Frequent Physical Activity: Hearing, Manipulate items with fingers, including keyboarding, Sitting, Talking

Occasional Physical Activity: Kneeling, Lifting, Reaching

Benefits Eligible: Yes

Weed Science Post-Doc Position

Job No: 496078

Work type: Staff

Location: Beltsville, MD

Categories: Research & Laboratory, Full Time

Duties and responsibilities:

Experience with conducting field-based research is required. Experience with laboratory- and greenhouse-based research is expected. We are looking for candidates with excellent organizational and quan-

titative skills, demonstrated record of research documented with peer-reviewed publications, and expertise in the following areas: weed ecology/biology, population dynamics, multi-tactic weed management, and statistics. Experience as supervisor, instructor and mentor of undergraduate and graduate students is desired.

Duties will include:

Coordinating and conducting field experiments focused on multi-tactic approaches for Integrated Weed Management (cover crops, herbicide use, tillage, and harvest-time weed seed control). Overseeing the application of machine vision on weed identification and the integration of this information into a multi-layered decision process. Coordinating and conducting laboratory and greenhouse experiments (plant-soil interactions, soil physical and chemical properties, nutrient uptake and allocation), organizing and analyzing data, writing and presenting research results in scholarly peer-reviewed journals and extension publications, presenting results at meetings with producers, farmers and industry representatives, and supervising and training of undergraduate and graduate students. The responsibilities will also include integrating and managing large agronomic data sets from several sites for the USDA area-wide project. The successful candidate will have ample opportunities for the development of independent but related lines of research.

- PhD required in Ecology, Weed Science, Soil Science, Agronomy, Environmental Sciences or related fields.
- Excellent writing and presentation skills.
- Strong background in statistics.
- Special requirements: Valid driver's license.
- Must pass a background check.

Location: USDA-ARS-BARC Sustainable Agricultural Systems Laboratory Beltsville, MD.

Provide: resume (CV), letter of interest, and names and contact information of three references. Applications must be made through the University of Delaware portal at: <https://careers.udel.edu/cw/en-us/job/496078/post-doctoral-researcher-plant-soil-science>

Starting Date: Negotiable, Early Fall 2020 preferred. Position open until suitable candidate found.

Salary: Competitive starting salary. The position comes with an extensive benefits package.

Questions regarding this position may be directed to:

Dr. Steven Mirsky, USDA-ARS Sustainable Agricultural Systems Laboratory, Beltsville, MD, steven.mirsky@ars.usda.gov, 301-504-5324

Dr. Mark VanGessel, University of Delaware, Carvel Research and Education Center, Georgetown, DE, mjv@udel.edu, 302-856-7303

Apply at: <https://careers.udel.edu/cw/en-us/job/496078/post-doctoral-researcher-plant-soil-science>. Provide resume (CV), letter of interest, and names and contact information of three references.

Advertised: 10 Jul 2020 Eastern Daylight Time

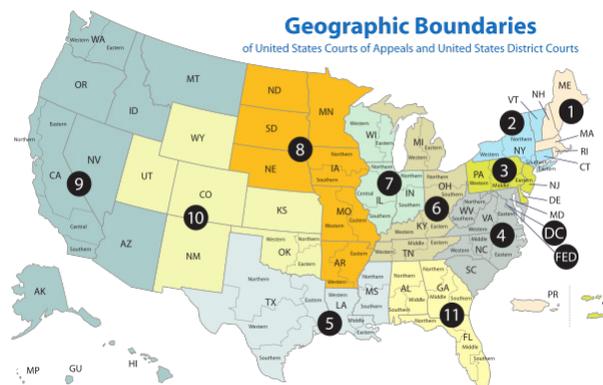
Review of applicants will begin August 15 and will remain open until a suitable candidate is identified

Washington Report

Lee Van Wychen

Dicamba, Enlist Duo & the Ninth Circuit Court of Appeals

The Ninth Circuit Court of Appeals, headquartered in San Francisco, is the largest of the 13 Federal Circuit Courts with 29 Appellate judges. It has been the forum for two petitions challenging the EPA's registration decisions for XtendiMax, Engenia, and FeXapan in one case and Enlist Duo in another. Petitioners in both cases were the National Family Farm Coalition (NFFC), Center for Food Safety (CFS), Center for Biological Diversity (CBD) and Pesticide Action Network North America (PANNA). The Natural Resources Defense Council (NRDC) was also a petitioner in the Enlist Duo case.



EPA was the respondent in both cases and the respondent-intervenor was Monsanto in the dicamba case and Dow Agrosciences in the Enlist Duo case. The petitioners argued that EPA's registration decisions for these herbicides violated certain provisions in both the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Endangered Species Act (ESA).

Dicamba. Case No. 19-70115.

On June 3, a three judge panel (i.e. "the panel") unanimously agreed EPA violated various provisions within FIFRA and thus, vacated the registrations of XtendiMax, Engenia, and FeXapan. Because the panel's vacatur was based on its holding under FIFRA, the panel did NOT reach the question whether the registration decision also violated the ESA.

From the court opinion summary:

"The panel held that the EPA substantially understated three risks that it acknowledged.

- First, the EPA substantially understated the amount of dicamba-tolerant (DT) seed acreage that had been planted in 2018, and, correspondingly, the amount of dicamba herbicide that had been sprayed on post-emergent crops.
- Second, the EPA purported to be agnostic as to whether formal complaints of dicamba damage under-reported or over-reported the actual damage, when record evidence clearly showed that dicamba damage was substantially underreported.
- Third, the EPA refused to estimate the amount of dicamba damage, characterizing such damage as "potential" and "alleged," when record evidence showed that dicamba had caused substantial and undisputed damage.

The panel also held that the EPA entirely failed to acknowledge three other risks.

- First, the EPA failed to acknowledge record evidence showing the high likelihood that restrictions on over-the-top (OTT) dicamba application imposed by the 2018 label would not be followed.
- Second, the EPA failed to acknowledge the substantial risk that the registrations would have anticompetitive economic effects in the soybean and cotton industries.
- Third, the EPA failed to acknowledge the risk that OTT dicamba use would tear the social fabric of farming communities."

Following the court's ruling, Bayer, BASF and Corteva filed separate petitions asking for an "en banc" review of the case. An en banc review in the Ninth Circuit Court of Appeals would consist of the chief judge plus 10 circuit judges drawn randomly from the 29 appellate judges. Since most en banc reviews can take a year or more if granted, it is likely that EPA will already have made a decision this fall on whether to re-register the OTT dicamba herbicides for soybean and cotton for the 2021 growing season. Members of the weed science societies remain focused on getting EPA the best available data so that they can make a science-based decision this fall.

Enlist Duo. Case No. 17-70810.

On July 22, a three judge panel (i.e. "the panel") ruled in favor of EPA by rejecting three of the four arguments from the petitioners that the Enlist Duo registration violated FIFRA. The one provision of FIFRA where the panel agreed with the petitioners was that EPA failed to assess harm to monarch butterflies when milkweed was controlled in target fields (Note- this is where Enlist Duo was meant to be used, in the target field, and not from the impacts on monarchs from off-target movement. More on this below).

The panel also ruled on the question of whether EPA violated any provisions of the ESA in registering Enlist Duo, unlike the dicamba case. Two of the three judges rejected the petitioner's arguments that EPA violated

the ESA. The lone dissenting judge held that EPA violated the ESA by failing to use the best scientific data to assess whether Enlist Duo would adversely affect threatened or endangered species.

The end result of all this is that the registration of Enlist Duo stands and that EPA has to “address the evidence that monarch butterflies may be harmed by the destruction of milkweed on target fields.” The panel did note that EPA’s error in failing to consider harm to monarch butterflies caused by killing target milkweed was not “serious”.

From the court opinion summary in regards to FIFRA violations:

- First, the panel agreed with petitioners that EPA failed to properly assess harm to monarch butterflies from increased 2,4-D use on milkweed in target fields. The panel held that given the record evidence suggesting monarch butterflies may be adversely affected by 2,4-D on target fields, EPA was required, under FIFRA, to determine whether any effect was “adverse” before determining whether any effect on the environment was, on the whole, “unreasonable.” The panel concluded that EPA’s failure to do so meant that its decision was lacking in substantial evidence on the issue.
- Second, the panel rejected the argument that EPA failed to consider that Enlist Duo would increase the use of glyphosate over time. The panel held that substantial evidence supported EPA’s conclusion that neither the initial 2014 registration of Enlist Duo – nor the subsequent approvals for new use – will increase the overall use of glyphosate.
- Third, the panel rejected petitioners’ contention that EPA failed to properly consider 2,4-D’s volatility – i.e., its tendency to evaporate into a gas and drift to non-target plants. The panel held that EPA reasonably relied on studies to support its conclusion that the volatility of 2,4-D choline salt will not cause on unreasonable adverse effects on the environment. Accordingly, substantial evidence supported EPA’s findings.
- Fourth, the panel rejected NFFS petitioners’ contention that EPA should have accounted for the potential synergistic effect of mixing Enlist Duo with a different chemical called glufosinate. The panel held that this concern was speculative.

The panel next addressed, and rejected, the petitioners’ ESA claims. The ESA and its implementing regulations delineate a process – known as Section 7 consultation – for determining the biological impacts of a proposed action. The process starts with a determination whether the proposed action will have “no effect” or if it “may effect” listed species or critical habitat. If an action will have no effect, no consultation with the expert agencies is needed.

- First, the panel rejected NFFC petitioners’ challenge to EPA’s “no effect” findings for plants and animals. The panel held that the EPA did what the ESA required it to do: assess risks to determine whether the exposure of protected species and critical habitat to potentially harmful chemicals would have any possible effect. The panel concluded that EPA’s ultimate “no effect” findings, and adoption of mitigation measures, were not arbitrary, capricious, or contrary to law.
- Second, the panel rejected NFFC petitioners’ argument that EPA’s rationale for limiting the “action area” to the treated field was not sound. The panel accorded deference to the EPA in the way it chose to define the action area.
- Third, the panel rejected NFFC petitioners’ argument that EPA violated its duty to insure no “adverse modification” of “critical habitat” by relying on its 2016 risk assessment.

As to the impact on the monarch butterfly population, EPA did perform a risk assessment that considered Enlist Duo’s effects to non-target plants, which includes plants important to monarchs. EPA found no concerns for terrestrial invertebrates (including monarchs) because Enlist Duo would only affect treated fields—not non-target plants—as long as it was used under the conditions prescribed by the label.

But the NRDC argued EPA should have considered how the destruction of milkweed on target fields would affect monarch butterflies. EPA acknowledged that it did not assess those risks because it was not required to do so. Farmers will control milkweed on their crop fields through the use of herbicides or other means such as cultivation, with or without Enlist Duo.

However, the panel noted “Despite the intuitive appeal of EPA’s argument, we must reject it. EPA did not assert this rationale as a reason for declining to assess the destruction of milkweed on target fields, so neither can we. Moreover, even had EPA asserted such a rationale, it would likely be premised on legal error. That milkweed would likely be targeted in the same ways even absent Enlist Duo’s registration suggests that registering Enlist Duo may not be “unreasonable” under FIFRA. But it says nothing about whether an effect would be “adverse.” Given the record evidence suggesting monarch butterflies may be adversely affected by 2,4-D on target fields, EPA was required, under FIFRA, to determine whether any effect was “adverse” before determining whether any effect on the environment was, on the whole, “unreasonable.” EPA’s failure to do so means that its decision was lacking in substantial evidence on this issue.”

Again, the panel noted that EPA’s error in failing to consider harm to monarch butterflies caused by killing target milkweed was not “serious.” The panel remanded so that EPA can address the evidence concerning harm to monarch butterflies and whether the registration of Enlist Duo will lead to an unreasonable adverse effect on the environment.

Weed Science Provisions in FY2021 House Ag Appropriations Bill

The House passed its FY2021 agriculture appropriations bill in July as part of a four bill “minibus” package. The Senate has not yet started on their FY2021 appropriations bills. The House Ag Appropriations bill includes a number of good weed science provisions in addition to increases in funding for the IR-4 Program and the AFRI competitive grants program. Funding for the IR-4 program has been stuck at \$11.9 million for over a decade. We’ve been working to highlight the great work the program does and its value to the economy, so it was great to see the House Ag Appropriations Committee propose funding of \$15 million for FY2021. Funding for the ag experiment stations (Hatch Act), university extension (Smith-Lever) and the Crop Protection & Pest Management (CPPM) program remain the same as FY2020 funding.

Weed Science Research The House Ag Appropriations Committee “supports the establishment of a National Program Leader dedicated to Weed Science Research and Management in the USDA National Institute of Food and Agriculture (NIFA)”.

Areawide Integrated Pest Management (AIPM) in NIFA. There are many strengths to effective AIPM projects, such as TEAM Leafy Spurge and TAME Melaleuca, but funding has only been available through USDA-ARS. We’ve been trying to get AIPM funding established in NIFA for several years. The House Ag Appropriations Committee “supports the development and implementation of areawide integrated pest management (AIPM) projects and directs NIFA to establish within CPPM an organizational framework and funding plan to implement AIPM projects that are to be planned in coordination with ARS, APHIS, and other federal agencies and implemented by cross-institutional teams, including farmers, ranchers, and land managers, at the local level.”

Tropical and Subtropical Weed Research. The House Ag Appropriations Committee “directs ARS to coordinate with NIFA, the Forest Service, APHIS, and the USDA Climate Hubs to provide to the Committees on Appropriations of both Houses of Congress not later than 180 days after the enactment of this Act a report on research relevant to and efforts to assist Hawaii, Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Northern Mariana Islands ... in land and forest resource management ... and biology and control of invasive insects, plant diseases, and weedy plant species, and the development of integrated pest management strategies to control them”.

Cogongrass. Of the 88 terrestrial weeds listed on the Federal Noxious weed list, cogongrass is arguably one of the most widespread. The House Ag Appropriations Committee “continues to provide \$3,000,000 for APHIS to partner with state departments of agriculture and forestry commissions in states considered

to be the epicenter of infestations, to assist with control and treatment of cogongrass in order to slow the advancing front of this invasive plant-pest species and its impact on forest productivity, wildlife habitat, and private landowners.”

Parag Chitnis is NIFA Acting Director

Dr. Parag Chitnis is serving as Acting Director of USDA-NIFA upon the departure of Dr. Scott Angle in July who became Vice President of Agriculture and Natural Resources at the University of Florida in Gainesville. Dr. Chitnis was named Associate Director for Programs earlier this year and leads implementation of NIFA's approximately \$1.7 billion research programs. Prior to joining NIFA, he was a research administrator at the National Science Foundation (NSF) – Division of Molecular and Cellular Biosciences, a professor in the Department of Biochemistry, Biophysics, and Molecular Biology at Iowa State University, and an assistant professor in the Division of Biology at Kansas State University. Chitnis has a B.S. in botany/plant breeding from the Konkan Agricultural University in India, an M.S. in genetics/biochemistry from the Indian Agricultural Research Institute, and Ph.D. in biology from UCLA.



2020 State Noxious Weed Seed Requirements List Updated

The Seed Regulatory and Testing Division of the USDA Agricultural Marketing Service (AMS), which enforces interstate commerce provisions of the Federal Seed Act, recently updated the state noxious weed seed list. It is available online at <https://www.ams.usda.gov/rules-regulations/fsa> in two formats (PDF & Excel). The document contains information about state labeling requirements and prohibitions of noxious weed seeds, and shows the scientific names and common names according to the law and regulations of the state in which the seed is considered noxious.

EPA Office of Pesticide Programs Staff Changes



Rick Keigwin (top photo), EPA's Director of the Office of Pesticide Programs (OPP), will be moving up to the Office of Chemical Safety and Pollution Prevention (OCSP) to serve as the Acting Deputy Assistant Administrator for Management starting June 22. The EPA's OCSP oversees both OPP and the Office of Pollution Prevention and Toxics (OPPT). Rick has been with EPA since 1989 and brings a wealth of experience and expertise from his very successful tenure leading OPP, and from previous OPP positions such as the Deputy Office Director for Programs, Director of the Pesticide Re-evaluation Division, Director of the Biological and Economic Analysis Division, and various leadership roles in the Registration Division.



Ed Messina (bottom photo), will assume the role of Acting OPP Office Director starting June 22. Ed has been with the EPA since 2006 where he has served in several roles in EPA's Office of Enforcement and Compliance Assurance (OECA) before moving to OCSP in 2018 to serve as Deputy Director of OPP.

USDA Updates Biotech Regulations

On May 18, USDA-APHIS published a final rule intended to modernize USDA's biotechnology regulations under the Plant Protection Act. The new rule marks the first comprehensive revision of USDA biotech regulations since they were established in 1986 under the “Coordinated Framework for Regulation of Biotechnology.” The final rule amends the regulations regarding the movement (importation, interstate movement, and environmental release) of certain genetically engineered (GE) organisms in response to advances in genetic engineering and APHIS's understanding of the plant pest risk posed by GE organisms. APHIS states that the new rule provides “a clear, predictable, and efficient regulatory pathway for innovators, facilitating the development of genetically engineered organisms that are unlikely to pose plant pest risks.” The new rule, known as the “SECURE” rule (Sustainable, Ecological, Consistent, Uniform, Responsible, Efficient) differs from the previous regulatory framework by focusing on an organism's properties and not on the method used to produce it. APHIS states that this approach enables it to regulate organisms developed

using genetic engineering for plant pest risk with greater precision than the previous approach. This method will reduce regulatory burden for developers of organisms that are unlikely to pose plant pest risks and will continue to provide oversight of organisms developed using genetic engineering that pose a plant pest risk. The new regulatory process for organisms developed using genetic engineering consists of the following steps:

- Exemptions: Determine whether the plant meets the criteria for an exemption with the option for requesting confirmation of the plant's exempt status. This step will be implemented starting August 16, 2020.
- Regulatory status review (RSR): Request a RSR to determine if a plant developed using genetic engineering poses a plant pest risk. This step will be implemented for certain crops on April 5, 2021, and will be fully implemented on October 1, 2021.
- Permitting: Apply for a permit for a regulated organism that does not undergo or pass the RSR. An RSR request may also be submitted for most plants moved under permit. This step will be implemented on April 5, 2021.

The final rule is a welcome change for most biotechnology stakeholders. The Biotechnology Industry Organization (BIO) praised the final rule, welcoming the diminished barriers to innovation as sensible and efficient. However, the Center for Food Safety condemned the final rule, noting that under it, "the overwhelming majority of GE plant trials would not have to be reported to USDA, or have their risks analyzed before being allowed to go to market."

One issue the National and Regional Weed Science Societies asked APHIS to address in their proposed rule last year was the issue of asynchronous approval of a herbicide-tolerant crop by APHIS and the concomitant approval by EPA of the herbicide for use on that crop. An example of this occurred when APHIS approved dicamba-tolerant soybeans in 2015, but the concomitant herbicides were not registered by EPA until 2017. However, APHIS cannot legally delay approval of a biotech crop if it does not pose a plant pest risk, nor can EPA "speed up" a registration of a herbicide (especially if they don't have the entire data submission package). Thus, the recommendation was for registrants to better time their applications so that the herbicide-tolerant crop and its corresponding herbicide are approved during the same crop year.

NEPA Rule Updates Should Improve Weed Management on Federal Lands

The Council on Environmental Quality (CEQ) announced a final rule July 15 to comprehensively update and modernize National Environmental Policy Act (NEPA) regulations for the first time in more than 40 years. CEQ is a division of the Executive Office of the President that coordinates federal environmental efforts in the U.S. and works closely with agencies and other White House offices on the development of environmental and energy policies and initiatives.

NEPA regulations control how the federal government processes environmental permits, but the law has often been used to block and delay federal projects and actions. More often than not, NEPA has been a roadblock to invasive species management. A classic example of this is with post-fire cheatgrass management in Wyoming. They have had several fires that burn on federal, state, and private land that is all interconnected. The state and private land owners were able to get in and treat cheatgrass within four months after the fire mitigating the potential invasion of cheatgrass onto adjoining lands. Meanwhile, it took the U.S. Forest Service four years to complete an environmental impact statement (EIS) for cheatgrass treatments, which by that time had allowed cheatgrass to invade an additional 2,000 acres and more than double its vegetation cover from before the fire.

The modernized NEPA regulations will accelerate the environmental review and permitting processes for management of our Federal lands and waters. The rule will establish a two-year limit for completion of environmental impact statements (EISs) and a one-year limit for completion of environmental assessments (EAs), and would also impose page limits.

The modernized NEPA regulations will also expand public involvement and improve coordination with States, Tribes, and Localities by requiring agencies to provide more information to and solicit input from the public earlier in the process to ensure and facilitate informed decision making by Federal agencies. The

changes will also reduce duplication by facilitating use of documents already prepared by State, Tribal, and local agencies to be used by Federal agencies to comply with NEPA.

Toolkit Launched to Help Battle Invasive Grasses

The Western Governors' Association (WGA) hosted a webinar on July 23 to launch a new Toolkit for Invasive Annual Grass Management in the West. While the webinar and toolkit are focused on western weeds, there are some excellent examples of collaboration among a wide range of public and private stakeholders and federal and state agencies to effectively go after large-scale weed infestations, thus providing a blueprint for other land managers around the country.

The toolkit is comprised of three elements: 1) A roadmap for invasive grass management in the West, with new best management practices for the identification and protection of relatively intact "core" areas; 2) Case studies highlighting the application of these practices in Idaho and Wyoming; and 3) A new geospatial data layer to help state and local officials manage invasive annual grasses at home, while also offering opportunities to identify new cross-boundary collaborative projects.

Great American Outdoors Act Expected to Become Law

The Great American Outdoors Act will establish the National Parks and Public Land Legacy Restoration Fund to support deferred maintenance projects on federal lands. The National Park Service accounts for 84 million acres of land at 400 different sites. But as of 2019, there was \$11.9 billion in deferred maintenance and repairs needed. The bill will direct up to \$6.65 billion to priority repairs and up to \$3 billion for other agencies like the Fish and Wildlife Service, Forest Service, and Bureau of Land Management. While there are no direct provisions in the bill for invasive species management, the restoration fund will help alleviate fiscal pressures at the Department of the Interior so that invasive species funding is not redirected to maintenance projects.

The second part of the bill will permanently fund the Land and Water Conservation Fund at \$900 million per year. This was definitely the more controversial part of the bill and most of the Congressmen who voted against the bill did so because of this provision. The Senate passed the bill 73 to 25 and the House passed it 310 to 107 and President Trump is expected to sign it into law. None of the funding in the bill would come from taxpayer dollars. Instead, programs would be funded by royalties from energy developments on federal lands and waters. For fiscal years 2021 through 2025, 50 percent of all energy development revenues due to the U.S. would be deposited into the National Parks and Public Land Legacy Fund, up to \$1.9 billion each year.

Harmful Algal Blooms Webinar Targets Capitol Hill and Federal Agency Staff

On June 8, Dr. Ken Wagner, Director of Water Resource Services, presented a webinar titled "Slowing the Spread of Harmful Algal Blooms." Dr. Wagner has a distinguished career of service in water supply protection and lake management including leadership roles with the North American Lake Management Society (NALMS). His presentation summarized the science behind available management techniques – science that has been in large part driven by federal research funding. However, increasing HAB outbreaks in the United States, and globally, highlight the urgent need for continued federal research support and national-level coordination to address both short-term risks and long-term solutions for HABs.

The webinar was part of the National Coalition for Food and Agricultural Research's (NCFAR) Lunch~N~Learn Capitol Hill Seminar Series that serves as a forum and a unified voice in support of sustaining and increasing public investment at the national level in food and agricultural research, extension and education. WSSA is a sponsor of the seminar series. I'd also like to thank Dr. Mark Heilman, APMS President, for his leadership in helping organize and coordinate the event as well as serving as the moderator. The webinar was well received and had 200 registrants.

Richardson Presents Webinar on Successful Aquatic Plant Management Strategies During National Invasive Species Awareness Week

"Slow the spread" is an unexpected catchphrase from this spring due to the global coronavirus pandemic

and was the theme of National Invasive Species Awareness Week (NISAW) that occurred May 16 – 23, 2020. Dr. Rob Richardson, APMS Past President and chair of WSSA's Noxious and Invasive Weeds Committee, presented the May 21 webinar titled "Successful Aquatic Plant Management Strategies Across the United States." The webinar was well attended with over 200 registered for the event. Richardson noted that it's critical we use integrated approaches with a combination of biological controls, cultural practices, herbicides, mechanical tools, nutrient management and prevention efforts to help stop the spread of invasive aquatic weeds. [Click here for the recorded webinar.](#)