

## **2019 Weed Science Society of America -- Travel Enrichment Experience**

**Purpose:** The Travel Enrichment Experience (TEE) will provide an opportunity for WSSA graduate students to participate in a five day, four night educational experience with professionals in a different WSSA region.

**Student Application Deadline:** WSSA Treasurer Phil Banks, must receive all application materials via email by **May 1<sup>st</sup>, 2019**. Please use “WSSA Travel Enrichment Experience” in subject line. Submission of all information into a single PDF file is preferred but not required.

**Description of Scholarship:** TEE recipients will have a five day, four night educational experience of their choosing, as described in Table 1. Opportunities for broadening knowledge of weed science range from field, lab, and extension settings with industry, government, or university professionals. Each recipient will be awarded \$2000 from the WSSA to pay for expenses incurred during his/her experience.

**Eligibility Requirements:** Applicants must meet the following criteria:

1. Enrolled as a current degree-seeking graduate student (M.S. or Ph.D.) in good academic standing at an accredited college or university
2. Currently conducting, or have recently finished, research in the area of weed science
3. Be an active member of the WSSA at the time of application
4. **Each recipient must submit an abstract and present a 10-minute oral presentation about his/her experience at the following WSSA annual meeting.** Specifics will be provided directly to recipients.

**Application Procedure:**

1. Completed application form (provided on Page 10)
2. Cover letter describing applicant’s interest in weed science and the travel enrichment experience (< 1 page)
3. Brief resume or CV summary highlighting recent relevant experiences (< 1 page)
4. Two letters of support, one of which must be from the applicant’s graduate or major advisor
5. Academic transcripts (unofficial copy is acceptable)
6. Email application information to Phil Banks (marathonag@zianet.com) by May 1, 2019, with “WSSA Travel Enrichment Experience” in the subject line.

**Selection Criteria and Process:** Applicants will be evaluated based on contribution of research to the discipline of weed science and to the WSSA objectives, academic record and scholarly achievements, and potential contributions to the future of weed science. Submitted applications will be distributed to the selection committee members where each member of the committee will evaluate and rank the applicants as shown on the Application Evaluation Form on Page 10. One student from each U.S. region and one from Canada will be selected. Judging will not be performed by individuals with a personal or advisory affiliation with an applicant.

**Timeline:** The selection process will be completed by May 15<sup>th</sup>, 2019. TEE recipients and their host(s) will determine the date in 2019 for the experience to occur. The selection committee will function as a liaison between the recipients and their host(s) throughout the process.

**Revising Guidelines or Procedures:** The selection committee can make changes or revisions to the TEE guidelines and operating procedures as more experience is obtained. The committee welcomes suggestions from the membership on methods to improve this experience for students.

**Table 1.** Host opportunities provided for the WSSA TEE organized by region.

Host name and institution	Location	Experience
<b>Canadian Weed Science Society</b>		
AAFC: Dr. Breanne Tidemann	Edmonton, AB	Integrated weed management, harvest weed seed control, integrated crop protection (pathology and entomology components), agronomic and rotational research, non-chemical management of herbicide resistant weeds
AAFC: Dr. Charles Geddes	Lethbridge, AB	Seedbank ecology, seed fate, integrated weed management, and agronomy in dryland and irrigated cropping systems; focus on herbicide-resistant weeds in the Canadian prairies
Dalhousie University: Dr. Scott White	Truro, NS	Management of perennial weeds in natural and agroecosystems, with particular emphasis on perennial weed management in wild blueberry
AAFC: Drs. Rob Nurse & Eric Page	Harrow, ON	Integrated weed management in horticulture crops, novel low-risk management tactics for herbicide-resistant weeds and invasives; crop-weed ecology and competition, crop stress physiology, population dynamics
AAFC: Dr. Sara Martin	Ottawa, ON	Whole genome sequencing, population genetics, and evolutionary biology of the mustard family and herbicide-resistant weeds
AAFC: Dr. Andrew McKenzie-Gopsill	Charlottetown, PE	Weed biology, ecology and ecophysiology; plant-plant interactions; invasive species management; herbicide-resistant weeds; integrated weed management in conventional and organic production systems

FMC: Mitch Long	Saskatoon, SK	Exposure to commercial agriculture; weed science research and demonstration; market development and new technologies
University of Saskatchewan: Dr. Steve Shirtliffe	Saskatoon, SK	Design innovative weed control methods to control weeds in systems where herbicides are ineffective
<b>Southern Weed Science Society</b>		
Auburn University/USDA-ARS: Dr. Andrew Price	Auburn, AL	Applied research in weed management for conservation vegetable and row crop production systems
University of Arkansas: Dr. Tommy Butts	Lonoke, AR	Inside look at the role of an Extension Weed Scientist: applied field research in AR row crops (corn, cotton, rice, soybean); application technologies; Extension activities – field calls, meeting with growers & consultants, diagnosing problems, providing recommendations
Syngenta: Dr. David Black	Searcy, AR	Managing a field Research and Development program across multiple disciplines (weed science, entomology, pathology, and seed care) across a variety of mid-south crops (cotton, soybean, corn, & rice)
University of Arkansas: Dr. Bob Scott	Stuttgart, AR	Operation of a University Research and Extension Center with a focus on the Rice Breeding program
University of Florida: Dr. Stephen Enloe	Gainesville, FL	Research focused on terrestrial and aquatic invasive plant biology, ecology, and management
Syngenta: Dr. Ethan Parker	Vero Beach, FL	Industry experience with Syngenta in Vero Beach, FL
Corteva Agriscience: Dr. Chris Meyer	Leland, MS	Work alongside a Corteva field scientist characterizing herbicides, insecticides, and fungicides in corn, cotton, rice, soybean, and various vegetable crops. Also, gain exposure to corn breeding, cotton breeding, and a soybean testing program, all located within a single research facility
Valent USA: Dr. Frank Carey	Olive Branch, MS	Exposure to herbicide resistance in rice, cotton, soybean, corn, grain sorghum, peanuts, and sweet potatoes; experience with how industry

		cooperates with universities and independent companies throughout Arkansas, Tennessee, and Mississippi
Bayer Crop Sciences: Jay Mahaffey	Scott, MS	Research and demonstration trials in multiple crops and disciplines; field tours; operation on an industry research and demonstration facility
Mississippi State University: Dr. Darrin Dodds	Starkville, MS	See all aspects of cotton production as well as UAVs, visit with genomics researchers, and visit virtual reality cave located on campus
Clemson University: Dr. Matthew Cutulle	Charleston, SC	Research focused on improving weed control in conventional and organic vegetable production
University of Tennessee: Dr. Jim Brosnan	Knoxville, TN	Weed management in turfgrass; herbicide resistance in <i>Poa annua</i> and <i>Eleusine indica</i> ; diagnostic testing of herbicide resistant weeds; plant growth regulators
BASF: Dr. Greg Stapleton	Memphis, TN	Experience with industry product development and technical service in the mid-south
Texas A&M University: Dr. Muthu Bagavathiannan	College Station, TX	Research on weed ecology, gene flow, and evolution; digital agriculture; IWM (cover crops, HWSC, etc.) for various cropping systems
Texas Tech University: Dr. Peter Dotray	Lubbock, TX	Herbicide resistant weed management in cotton and cotton rotation systems; Extension work in the Texas Southern High Plains
<b>Northeastern Weed Science Society</b>		
FMC Corporation: Dr. Chris Rouse	Newark, DE	An opportunity to learn about herbicide discovery from the chemistry to the field. Interact with members of the Herbicide Discovery Team at the Stine Research center including chemistry, environmental/biological fate, chemical genomics, business, and field development. Learn what it takes to go from molecule to innovative crop protection solution

University of Massachusetts-Amherst: Dr. Hilary Sandler	East Wareham, MA	Factors that influence the dynamics of crop and weed ecology within the cranberry production system
Cornell University Dr. Toni DiTommaso	Ithaca, NY	High commitment to creating a unique learning environment. Weed ecology/biology studies; weed seedbanks; seedling emergence models; effects of climate change (drought) on crop-weed interactions; integrated management of invasive plant species in natural Northeastern U.S. landscapes; impact of deer on plant community succession
Syngenta: Dr. Larissa Smith	King Ferry, NY	Industry experience in crop protection and field development with Syngenta in the Northeastern US
Syngenta: Drs. Janis McFarland & Carroll Moseley and Dan Campbell	Greensboro, NC	The Syngenta facility in Greensboro features a unique exposure to the weed science industry with Dr. McFarland (Head of Regulatory and Stewardship, North America), Dr. Moseley (Sr. Environmental Stewardship & Policy Manager), and Mr. Campbell (Team Lead for Regulatory Affairs).
North Carolina State University: Dr. Wes Everman	Raleigh, NC	Weed management in corn, soybeans, small grains, and sorghum (milo); drone research for weed detection in row crops; water stress on crop-weed competition
Virginia Tech: Drs. Shawn Askew, Jacob Barney, & Michael Flessner	Blacksburg, VA	A TEE recipient would be exposed to multiple disciplines, including environmental, chemical, and cultural effects on weed management in turfgrass (Dr. Askew); propagule pressure and ecological/niche/habitat impacts of invasive species on natural landscapes, as well as perennial grass bioenergy potential (Dr. Barney); and high-residue cover crops for managing herbicide-resistant weeds with consideration for herbicide carry-over from the cash crop to the cover crop (Dr. Flessner).
<b>North Central Weed Science Society</b>		
Corteva Agriscience: Craig Alford	Johnston, IA	Experience the crop protection product and trait development at Corteva. See

		weed control, and other research trials while interacting with scientists across the R&D platform
University of Illinois: Drs. Aaron Hager & Pat Tranel	Champaign, IL	Exposure to weed science in field, molecular, and Extension applications, plus the use of data science to gain a deeper understanding of weed ecology and management
Purdue University: Drs. Bill Johnson & Bryan Young	West Lafayette, IN	Weed science research bridging the basic and applied aspects of weed management; exposure to field, lab, greenhouse, and Extension weed science
Kansas State University: Drs. Anita Dille & Dallas Peterson	Manhattan, KS	Weed management in Kansas crop production systems with a focus on Extension and ecology
Kansas State University: Dr. Mithila Jugulam	Manhattan, KS	Exposure and experience in understanding of the mechanisms of the target and non-target site herbicide resistance in weeds, including hands-on opportunity to work on whole plant physiology, biochemistry, molecular biology, and molecular cytogenetics. Other focused research areas include the effect of environmental stress on herbicide efficacy and the development of herbicide-tolerant crops.
Michigan State University: Drs. Christy Sprague & Erin Burns	East Lansing, MI	Extension weed science focusing on integrated weed management, biology, and ecology in corn, soybean, sugar beet, dry bean, alfalfa, small grains and potato production
Bayer Crop Sciences: Dr. Neha Rana & Matt Nelson	Creve Coeur, MO and Huxley, IA	Interaction with weed scientists in trait technology and herbicide development plus exposure to commercial agriculture. Research areas include system-based weed management, new herbicide technologies, and market development research. Experience includes opportunity to meet with seed partners, product managers, and research & development team

University of Wisconsin-Madison: Dr. Rodrigo Werle	Madison, WI	Applied weed management in annual cropping systems. Impact of integrated strategies on weed biology, ecology and management. Herbicide resistance distribution and management. Off-target herbicide movement. Exposure to field and greenhouse research in addition to summer field days
<b>Western Society of Weed Science</b>		
University of California, Davis: Dr. Brad Hanson	Davis, CA	Weed management in vine and tree (nut and fruit) cropping systems that focuses on weed control efficacy, crop & environmental safety, and farmer economics; integrated weed management in perennial crops; research & Extension work in lab, field, and greenhouse
Corteva Agriscience: Stephen Colbert	Escalon, CA	I conduct field testing for crop protection products in Northern California. My current herbicide testing program is primarily rice weed control and orchard/vineyard crop weed control.
University of California: Dr. Lynn Sosnoskie	Merced, CA	A visiting student will have the opportunity to meet with research and extension personnel working in trees and vines and in agronomic cropping systems in the San Joaquin Valley, warm-season vegetable crops in the Sacramento Valley, and in leafy greens in the salad bowl of the world, the Salinas Valley. Students will visit with faculty both at UC Davis and at some of the California State University campuses that have applied agricultural education programs that serve under-represented minority students.
Colorado State University: Drs. Franck Dayan & Todd Gaines	Fort Collins, CO	Molecular genetics lab experience includes DNA extraction, genotyping assays, and qPCR for gene copy number; weed genomics for understanding competitiveness and hardiness
Syngenta: Marty Schraer	Meridian, ID	Exposure to the life of an industry field development representative. My position covers weed science,

		entomology, nematology, and plant pathology in barley, spring wheat, onion, dry pea, potatoes, soybean, and sugarbeets. I'll end by stating that anyone choosing this "experience" will certainly get one.
Montana State University: Drs. Sharlene Sing & Sarah Ward	Bozeman, MT	Exposure to applied research in corn, soybean, and dry bean weed control in the Northern Great Plains. Depending upon timing, a student could experience a series of extension field days across the state of North Dakota covering weed control in up to 2 dozen cropping systems
North Dakota State University: Dr. Joe Ikley	Fargo, ND	Biocontrol-based management of invasive weeds on federal and state-owned forest and rangeland in Montana
New Mexico State University: Dr. Brian Schutte	Las Cruces, NM	Working with farmers to develop integrated weed management strategies for field and specialty crops in New Mexico.
Oklahoma State University: Dr. Misha Manuchehri	Stillwater, OK	Exposure to an active extension weed science program with a focus on weed management in winter wheat and winter canola
Oregon State University: Dr. Andy Hulting	Corvallis, OR	Developing integrated weed management tactics for the wide variety of cropping systems across Oregon; weed and invasive ecology research and Extension work on lands where agricultural and non-agricultural uses overlap
Oregon State University: Dr. Joel Felix	Ontario, OR	Development and support of weed management tactics that address grower economic growth while enhancing environmental stewardship for a viable and sustainable agriculture. Currently, we have ongoing studies on weed management in dry bulb onions, sugar beets, corn, potato, alfalfa, and dry beans in the irrigated fields of Eastern Oregon
Utah State University: Dr. Earl Creech	Logan, UT	Exposure to extension weed science research in Utah
Wilbur Ellis Company:	Kennewick, WA	Industry experience with Wilbur Ellis



Dewayne Harper		
Washington State University: Dr. Ian Burke	Pullman, WA	Exposure to basic aspects of weed biology and ecology with the goal of integrating such information into practical and economical methods of managing weeds in the environment
University of Wyoming: Dr. Andrew Kniss	Laramie, WY	The main objective of my research is to develop sustainable weed management programs, especially in agronomic crops like sugarbeet, winter wheat, corn, and dry beans. My research program is relatively diverse in scope, but most of my research program fits within the following themes: non-target impacts of weed management, herbicide physiology, weed seedbank ecology, weed management in sugarbeet, new herbicide uses, and herbicide resistant crops

## Scholarship Application Form

(Send all documents to Phil Banks, [marathonag@zianet.com](mailto:marathonag@zianet.com) by May 1, 2019)

1. Applicant Name:

2. Selection of Host Institution for the WSSA Travel Enrichment Experience:

First Choice: \_\_\_\_\_

Second Choice: \_\_\_\_\_

Third Choice: \_\_\_\_\_

3. Cover Letter (max 1 page):

4. Resume or CV Summary (max 1 page):

5. Academic Transcript (official transcripts NOT required):

6. Include two letters of support, including one from your academic advisor.