

WSSA NIFA Fellow Progress Report

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Major Activities Since 2023 Annual Meeting

Recruitment of Volunteers to Serve on NIFA Panels. NIFA maintains a database for scientists willing to serve on competitive grant panels. Our last call for volunteers led to a modest number of weed scientists included in this database. We need more weed scientists in this database. Two approaches have been implemented to recruit more weed scientists to volunteer.

- 1) I appreciate the WSSA BOD suggesting weed scientists to be asked to volunteer. I sent personal invitations to 41 weed scientists encouraging them to volunteer. I received 16 responses, of which 12 indicated that they had submitted their information to the NIFA reviewer volunteer system. Others indicated that they had already volunteered. I am very pleased with this response.
- 2) With the exceptional assistance of the WSSA Science Policy Fellows, a poster was created entitled “*Advancing Weed Science Research, Extension, and Education: NIFA Grants and Panel Reviewer Opportunities*”. The poster includes a QR code for an electronic version with links to each of the key NIFA competitive grant programs related to weed science. Authors are Annu Kumari, Cynthia Sias, James Kells, Vijay Nandula and Lee VanWychen. The poster has been presented at NCWSS and NEWSS and will be presented at WSSA/SWSS and WSWS.

Symposium for the 2023 WSSA Annual Meeting. The symposium entitled “WSSA Research Priorities Survey Results: 13 Federal Agency-Perspectives and -Funding Opportunities” was a huge success. A synopsis of the symposium, entitled “Federal agency perspectives and funding opportunities for weed and invasive plant research” was published in the July 2023 issue of WEED SCIENCE in coordination with the results of the WSSA Research Priorities Survey. Paper authors are Steve Young, James Kells, and Vijay Nandula. The paper includes a table summarizing funding opportunities from key federal agencies that focus on weeds and invasive plants.

Input to NIFA-CPPM Program Listening Session. NIFA held a listening session with key stakeholders of the Crop Protection and Pest Management Program (CPPM) on August 2, 2023. I provided verbal input and submitted a written report summarizing the key findings from the WSSA Research Priorities Survey. These comments were edited by Dan Brainard and published in the October 2023 issue of the WSSA Newsletter.

Monthly Meetings. I meet by Zoom monthly with Vijay Nandula (NIFA), Steve Young (ARS), Cameron Douglas (USDA-OPMP), Bill Chism (EPA-retired), Lee VanWychen, and Mark VanGessel. These discussions are highly informative and enlightening. Many creative ideas have emerged from these monthly meetings.

Future Priorities

Advocacy for WSSA Research Funding Priorities: I will continue to advocate for funding for weed science research. My future emphasis will be guided by the results of the 2022 WSSA Research Priorities Survey. The three general research areas (and sub-categories) that were scored as high priorities by the most survey respondents are:

- Cultural and Preventative Weed Management
 - combining multiple tactics
 - crop rotation and diversification strategies
 - cover cropping
- Precision Weed Management and Robotics
 - artificial intelligence for plant ID
 - vision systems
 - precise actuators
- Herbicides
 - herbicide development and discovery
 - evaluating efficacy

Areas where research priority exceeded current expertise (areas where research capacity needs to be expanded) are:

- Cultural and Preventative Weed Management
- Precision Weed Management and Robotics
- Weed Genomics
- Social and Economic Issues

Communication with WSSA Members. I will continue to keep WSSA members informed of funding opportunities through the NIFA competitive grants programs along with other federal funding and career opportunities.

Networking with Other Federal Agencies. I hope to establish and expand connections with key leaders in federal agencies beyond USDA-NIFA. While NIFA will continue to be the priority, there is a need to identify leaders in other agencies willing to serve as liaisons with WSSA. I intend to start with USDA-APHIS and US Fish and Wildlife. I will work closely with Lee VanWychen on this initiative.