



2020 WSSA Standing Committee Report

Committee Name and Code: E12a Herbicide Resistant Plants Committee

Committee Chair: Muthukumar Bagavathiannan

Committee Members (includes sub-committee members):

Franck Dayan, Peter Sikkema, Ramon Leon, David Simpson, Jim Brosnan, Charles Geddes, Neha Rana, William Vencill

Board of Directors Liaison: Bryan Young

Committee members rotating off and recommended replacements:

Frank Dayan will be rotating out in 2022 as well as myself

I recommend Dr. Peter Sikkema be put back as a member of this committee. He made this request and he has been a great asset to the committee.

Summary of past year's activities including:

- Committee goals:

To serve as an information resource for scientists and practitioners in the areas of confirmation, identification, and management of herbicide resistant weeds.

- Committee accomplishments

- Impact of committee activities/accomplishments on membership, publications, policy, education, other, etc.

There were two major activities:

1) Advance our understanding of formulating community level efforts for weed resistance management:

- These activities are carried out in collaboration with the Herbicide Resistance Education committee (E12b), Chaired by Dr. Shaw. Actively involved in studying and promoting community-level efforts for weed resistance management. Participated in the Iowa Harrison County field tour and several follow-up discussions. Co-authored a peer-reviewed journal article on this topic led by Katie Dentzman.
- Dentzman K, Pilcher C, Bagavathiannan M, Barrett M, Burke I (2020) Lessons in building community capacity for managing agricultural pests: a science policy experience in Iowa. *Outlooks in Pest Management* DOI: 10.1564/v31_oct_00.
- Participated in the AAAS symposium on ‘community-level weed management’ organized by Dr. Dave Ervin on Feb 14, 2020 and delivered a talk entitled: The dilemma of bridging individual and collective interests in weed management’.
- Currently leading an NSF Growing Convergence Program proposal to secure resources to continue research on community-level pest

resistance management, by collaborating with social scientists and experts in other pest management disciplines.

- 2) Facilitate the establishment of a weed seed germplasm repository through GRIN

We have made communications with the curators of different plant species at the USDA-ARS Germplasm Resources Information Network (GRIN) and working towards developing a repository of different weed biotypes. The logistics coordination is planned for 2021.

- WSSA funds requested if any?

None

- Current state of the committee's projects or activities?

Ongoing

- Summary of plans for next year (changes in goals, key initiatives, plan of action, etc.):

There are two key activities planned for 2021. These are continuation of 2020 efforts.

- 1) Continue to make headway in our understanding of formulating community level efforts for weed resistance management
- 2) Facilitate the establishment of a weed seed germplasm repository through GRIN

- Any new information posted on the WSSA website?

Yes, the Dentzman et al. (2020) publication

- Recommendations for Board or Membership action (funds or other requests):
None