WEED SCIENCE SOCIETY of AMERICA
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WSSA Committee Report

COMMITTEE: Herbicides for Specialty Crops **E10. Chair: Lynn Sosnoskie** **Date**: January 28, 2026

BOARD LIAISON: WSWS Rep: Alan Helm

Include in Consent Agenda: **X** Yes (no discussion needed, just informational update)

☐ No (items in report require discussion or action)

Name	Term Ending	Region/ Affiliation		Name	Term Ending	Region/ Affiliation
Chair: L. Sosnoskie	2026	NE		K. Jennings	2024	S
R. Batts	Ex-Off	IR-4		K. Vollmer	2024	NE
M. Moretti	2026	W		N. Lawrence	2024	W
S. Meyers	2026	NC				
D.C. Odero	2026	S				

Reviewed MOP for updates: **X YES** ☐ **NO**

Comments re: MOP:

Committee Actions/Impacts/Activities:

Members of the WSSA Herbicides for Specialty Crops Committee (E10) has been actively engaged in the evaluation of novel herbicides for weed management in specialty crops and for minor uses within major agronomic cropping systems. Committee members have contributed extensively to the IR-4 registration and testing process, supporting research that advances safe and effective herbicide options for crops with limited pest management tools.

Research, extension, and outreach efforts have focused on identifying new active ingredients for the control of branched broomrape in processing tomatoes; extending the utility of existing Section 3 labels in pumpkins; pursuing emergency exemptions to address Palmer amaranth control challenges in sugar beets; and evaluating herbicides for the selective control of grape suckers and basal hop foliage. These activities reflect the committee members' emphasis on addressing critical weed management gaps where limited herbicide options threaten crop productivity and economic viability.

Committee members have also prioritized the identification and confirmation of herbicide-resistant weed populations in specialty and minor-use crops. The true extent of herbicide resistance in these systems remains poorly characterized, in part because relatively few scientists work in the specialty crop sector. E10 members have contributed data, diagnostic efforts, and regional observations to improve understanding of resistance trends and risks in these underrepresented cropping systems.

In addition, members have investigated the use of precision application technologies, including Weed-It, Verdant Robotics, and Ecorobotix systems, for targeted herbicide applications. These efforts have supported improved herbicide stewardship, reduced off-target exposure, and increased application efficiency. Committee members have leveraged their expertise to provide presentations and input to the IR-4 Project and the EPA Office of Pesticide Programs, highlighting the growing

disconnect between rapid advances in spray technology and the specificity of current herbicide labeling for use with these systems.

Members have continued to play an important role in educating stakeholders about the Endangered Species Act and emerging compliance requirements, with an emphasis on how these regulatory changes may affect herbicide availability, application practices, and weed management strategies over time.

Finally, members of the E10 committee have been active at local, regional, and national levels in providing impact statements that describe the effects of paused and delayed federal grant programs on their laboratories, departments, schools, and colleges, as well as the downstream consequences for translational agricultural research and stakeholder support in specialty crop systems.

Future weed control in specialty crops will be increasingly constrained by limited herbicide diversity, expanding herbicide resistance, evolving regulatory requirements, and slow discovery and registration of new herbicides, requiring greater integration of existing chemistries with precision technologies and nonchemical management strategies.

Committee Meeting Schedule*: (Include all planned meeting dates and times):

A Feb-March zoom meeting is being planned.

Budget needs:

None

Areas for improvement/concerns:

The E10 committee did not formally meet in 2025, due in part to time constraints associated with the outgoing chair finalizing their tenure submission package. New faculty members in research and extension roles for fruit and vegetable production at Michigan State University, Oregon State University (Aaron Becerra Alvarez), Washington State University (Rui Liu), the University of Arizona (Mazin Saber), Ohio State University (Ram Yadav), the University of Massachusetts (Maria Gannett), NCSU (Navdeep Godara), Auburn (Aniruddha Maity) and other institutions have agreed to join the committee. Marcelo Moretti, Thierry Besancon, Stephen Meyers, and Matt Cutulle have agreed to remain on or join the committee. The outgoing chair has sent an email to current and new committee members to work toward identifying a meeting time in 2026.

Opportunities for future (symposia, speakers, communication, general):

Critical Weed Management Gaps in Specialty Crops
- High-impact weeds with limited control options

Herbicide Resistance in Minor-Use Crops
- Identification and confirmation of resistant weeds
- Why resistance remains underreported in specialty systems

Precision Application Technologies and Targeted Spraying
- Research and extension experiences with sensor-based and robotic sprayers
- Opportunities and limitations for adoption in specialty crops

When Technology Outpaces Labels
- Challenges in aligning herbicide labels with emerging spray systems
- Communication with regulators and implications for stewardship

Sustaining Specialty Crop Weed Science Programs
- Research capacity, funding uncertainty, and workforce challenges
- Building collaborative networks across institutions

A Double-Edged Sword: Herbicide Dependence, Crop Injury, and Weed Control in Specialty Crops
- The essential role of herbicides in managing high-impact weeds in specialty crops, contrasted with narrow crop safety margins, limited selectivity, and the risk of economically significant crop injury.
- Research and extension strategies to mitigate injury risk, including refined application timing and rates, precision spray technologies, and integration with nonchemical weed management approaches.