



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.