

2010 WSSA Committee Progress Report July 2010

Committee Code and Name: Herbicides for Minor Uses (E10)

Committee Chair: Roger Batts, North Carolina State University (roger_batts@ncsu.edu)

Board Coordinator: Tim Miller

Committee Members Rotating Off:

Four members are scheduled to rotate off after 2010: Doohan, Miller, O'Sullivan, and Zollinger.

Current Roster:

Arsenovic, Marija (NE)**	Fennimore, Steve (W)
Batts, Roger (S)*	MacRae, Andrew (S)
Bellinder, Robin (NE)	Miller, Tim (W)
Colquhoun, Jed (NC)	Monks, David (S)
Culpepper, Stanley (S)	O'Sullivan, John (C)
Doohan, Doug (NC)	Wallace, Russ (S)
Felix, Joel (W)	Zollinger, Richard (NC)

*Chair

**IR-4 Herbicide Coordinator and ex-officio

Appropriate Replacements: Will be arranged prior to end of 2010

2009 Summary of Activities

What were the committee's goals for 2010? To discuss and coordinate important issues related to weed management in minor crops and herbicide registration issues, as well as potential sustainable production.

List the committee's accomplishments (fall 2009-June 30, 2010):

The HMUC met for two 45-minute sessions at the 2009 IR-4 Food Use Workshop (FUW) in September 2009. These sessions were not limited to HMUC members, as they were part of the FUW agenda. Committee members present were: Batts, Arsenovic, Bellinder, Doohan, Monks, and Zollinger.

Topics of discussion included the following:

- Discussed with representatives from EPA if there are any guidelines regarding the number of greenhouse residue trials or ratio of field:greenhouse trials required for a crop that may be grown in both of these environments. EPA personnel stated that they knew of no such rules, but suggested that IR-4 contact the Chemistry Science Advisory Committee (CHEMSAC) at EPA's Health Evaluation Division (HED) for guidance on this in the future. IR-4 probably also needs to ask if there

are guidelines regarding ratio of seeded:transplanted trials in situations where the crop in question can be produced in both manners.

- Indemnification labeling was discussed. There is an ongoing effort with EPA and manufacturers to resolve wording issues on these types of labels.
- Much discussion occurred on the registration review for fomesafen, particularly the Ecological Risk and Endangered Species Assessment published by EPA. Both EPA and Syngenta representatives agree that this is still in the early stages and more communication between these parties will be occurring. There is concern among some of the weed specialists that the large buffers suggested in this review may set a precedence for future compounds and that the weed science community should stay aware of and give input on how this particular review is to be resolved.
- Dow explained that oxyfluorfen is on hold at EPA and any movement of oxyfluorfen registrations would probably not happen for nearly a year.
- Robin Bellinder has looked at several herbicides for safety in transplanted basil. Safety was seen with a majority of the products she evaluated. Along those lines, IR-4 had at least 3 crop safety/performance trial sites evaluating napropamide at 1X and 2X rates applied preemergence in 2009. It was mentioned that napropamide has 24c registrations for seeded basil in California and Illinois. Bellinder plans on sharing her data at next HMUC meeting (Denver, Feb 2010)
- Dr. Bellinder also discussed her trials with saflufenacil (Kixor) applied at 0.045 lb ai/a pretransplant to perennial strawberries. She saw good broadleaf weed control and no injury to the berries. She also likes it for weed control when applied to dormant berries.
- Pendimethalin projects that have tolerance established but the crop is not yet on BASF's marketing label was revisited. Several researchers conducted trials in 2009 to try to provide BASF with data on these. Cabbage and Broccoli were the primary focus in 2009, both inside the company and with several university sites. BASF mentioned that if all data was clean it would simply be a matter of adding to the label. If some data was questionable, BASF stated it may be possible to exclude certain situations (i.e., soil OM%, certain textures, etc.) when adding one of these crops to the label. All researchers were encouraged to forward any data on these crops to the company as well as IR-4 HQ. Note: IR-4 had crop safety/performance trial sites for pendimethalin/green onion in 2009 for to help generate data for a registration decision to be made.
- Use of s-metolachlor in tomatoes was brought up. Dual Magnum label for tomatoes lists a 90 day PHI. This concerned many in the meeting because tomatoes are not typically a 90+ day crop. California has 24c label for 60 day PHI. It was also mentioned that the residue trials conducted for this use were done with a 30 day PHI
- As of 2009, pronamide (Kerb) can not be used on leaf lettuce. During recent reregistration, EPA listed only head lettuce because old residue trials apparently were only done on head lettuce. Dow and IR-4 questioned this and EPA said more residue trials will be required. IR-4 conducted 8 residue trials on leaf lettuce in 2003. This data, and possibly more from Dow, will probably go to agency this winter.
- Arsenovic stated that Tessenderlo Kerley, Inc. (TKI) now has linuron and that they are willing to support any possible label expansions.

- The possibility of prohexadione calcium (Apogee) use on strawberries was brought up by Kathy Demchak, Penn State. Several others, including representatives from Canada, added their interest and comment on this. This use would be for reduction of runners in annual berries grown on plastic mulch in northern climates to help control runner growth and help gain large berry size, according to Edith Lurvey. David Monks said that he and Katie Jennings had seen inconsistent results from Apogee in a couple of North Carolina trials.
- During November and December, much e-mail communication occurred with the committee focused on herbicides for spinach. Researchers brought up new herbicides and rates that have investigated. Russ Wallace opened up discussion on spinach herbicides at the HMUC meeting in Denver. He said that as he looked over the e-mails, there weren't that many promising products. He did mention that Steve Fennimore has been looking at linuron-tolerance spinach. Fennimore commented that this may be the best way to proceed with herbicides in spinach since there is little movement with new chemistries. Zandstra asked about bringing back products that are still available on the world market, but not in the US. Batts and Fennimore cited concerns that these products may not pass current EPA toxicological and ecological requirements.

Other topics discussed at HMUC meeting in Denver:

Members in attendance: Batts, Fennimore, MacRae, Miller, O'Sullivan, Wallace, Zandstra, Zollinger.

- Gordon Vail, Syngenta, updated the committee on the Dual-Magnum PHI situation in tomato. He said that the 30d PHI would probably be in place on the Section 3 label in fall 2010. If specific states would like this use prior to then, they could pursue 24c labeling. Members from several states expressed interest in this, including NC, Michigan and California. *Note: Post-WSSA communications revealed that 24c labeling in 2010 will use 60d PHI, as 30 d PHI still under EPA review*
- Dirk Drost, Syngenta, addressed Reflex issues:
 - a. Potato and tomatoes coming in 2010 for areas already in the "Reflex geographies". Syngenta is considering expanding this "geography" into other areas, such as Florida and West Texas. These expansions will be determined by water (i.e. rainfall amounts and/or irrigation capacities) of the areas. Label wording may specifically require certain amounts of one or both types in the area before use will be allowed. Bernie Zandstra mentioned that the current rotational crop intervals for Reflex could be significantly restrictive to growers. Drost stated that without empirical evidence that intervals for certain crops can be safely adapted, Syngenta will have to stay with the currently known data and intervals.
 - b. Additional crop uses for Reflex are in waiting, due to IR-4 lab delays. Syngenta expressed concern over the pace of these projects and how the landscape for registration could shift before these are registered and could possibly cause problems with these registrations (See Dow/pronamide discussion below).
 - c. Ecological risk assessment of Reflex was discussed. Drost told the

committee that Syngenta and EPA have had several meetings and that there seems to be an adjusting on the part EPA concerning some of the buffers that were previously proposed. Discussions between the two parties are to continue on this issue.

- Jachetta addressed two issues with Dow products:
 - a. He explained the current threat that faces trifluralin in Europe. Trifluralin has been proposed to be added to the Persistent Organic Pollutant (POP) list by the United Nations Economic Commission for Europe (UNECE) convention on Long-range, Transboundary Air Pollution. Currently listed compounds on the POP list include DDT, dioxins, and PCB's. Both US and Canada authorities have stated that this long range transboundary issue is not a concern. However, since European countries use a Hazard-based model rather than a Risk-based model to determine safety of pesticides, trifluralin is proposed to the POP list. Jachetta encouraged committee members and any one else with interest to submit letters to Dow pointing out the benefits of trifluralin. Dow plans on submitting these letters to the UNECE by Feb. 14. Note: *HMUC members contributed letters and/or solicited letters from other WSSA members to support Dow in keeping trifluralin off the POP list.*
 - b. He explained the time-line and situation of the recent loss of pronamide in leaf lettuce. Due to the market shift towards baby lettuce in the early 2000's, the labeled PHI for Kerb was unacceptable and several residue trial were requested with more appropriate PHI's. IR-4 conducted requested trials in 2003. Along with company data, this is to be submitted EPA soon. Jachetta says that leaf lettuce label will hopefully be in place Q4 2011. Fennimore mentioned that he was on an August conference call related to this issue and proposed special wording that would separate out baby lettuce from the traditional romaine lettuce.
- Fennimore showed several slides of a robotic in-row weeder for use in transplanted (and maybe seeded) lettuce and celery. The Tillet-Hague <http://www.thtechnology.co.uk/> cultivator uses cameras and a shield to move rotating tines between crop plants. Fennimore also showed production cost estimates of organic vs. conventional lettuce systems including the weeding costs in each. He discussed the increase in efficiency with this device vs. hand labor. Several committee members were keenly interested in this device.

What information was posted on the WSSA website? I am aware of none.

How much funds were requested? How much was spent? I am aware of no fund requests or expenditures made by this committee.

What was the impact of the committee activities/accomplishments on the following: membership, publication, policy, legislation, and/or education? HMUC members are engaged in the USDA IR-4 Project, which coordinates testing and data submission to US EPA to help growers of these high-value, small-acreage crops obtain new herbicidal tools. Many of our members also hold extension appointments at their institutions and are in excellent positions to share research weed control findings directly with growers.

What is the current state of the committee's projects and activities? The HMUC is highly active in its pursuit of weed control solutions for minor/specialty crop production. Through direct meetings and other communications, we share data and ideas on new weed control solutions. Cooperation and communication from researchers across all regions of the country is particularly strong in this committee.

2010 Plan for Committee Activities

Goals for 2010: To continue to identify and resolve field-level weed control issues in minor/specialty crops and to stay abreast of legislative issues that will affect protecting specialty crops from losses due to weeds.

Plan of Action: Through direct meetings (IR-4, WSSA, and others) and through intra-committee correspondence, issues can be identified and through data and idea exchange, resolutions can be reached through a consolidated approach.

What is needed to further the goals of the committee/project? Continued participation in the committee by members and other interested parties is critical. This may include identification of emerging weed control problems as well as data exchange on weed control agents. Communication with regulatory agencies on weed control issues involving specialty crops will also be essential.

Recommendations for Board/Society Action:

Funds requested for 2010: None

Other requests for the Board: None