

2010 WSSA Committee Report to Members Summary for 2010 and Action Plan for 2011

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

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

Board Coordinator: Rod Lym

Committee Members Rotating Off:

Several chose to stay, while others decided to rotate off or now have responsibilities that don't include minor crops.

Current Roster, (term expiration and region):

Arsenovic, Marija (2013, NE)**	Fennimore, Steve (2016, W)
Batts, Roger (2012, S)*	MacRae, Andrew (2014, S)
Bellinder, Robin (2014, NE)	Miller, Tim (2015, W)
Colquhoun, Jed (2013, NC)	Monks, David (2014, S)
Culpepper, Stanley (2014, S)	O'Sullivan, John (2015, C)
Doohan, Doug (2015, NC)	Wallace, Russ (2014, S)
Felix, Joel (2013, W)	Zollinger, Richard (2015, NC)

*Chair

**IR-4 Herbicide Coordinator and ex-officio

Appropriate Replacements: See roster

2010 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 in 2010:

The HMUC met for twice during 2010. One meeting was conducted February 9 at WSSA annual meeting in Denver. The second meeting was held September 14, during the 2010 IR-4 Food Use Workshop (FUW), in Summerlin, NV.

Denver Meeting

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

Order of discussion:

1. 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

2. Dirk Drost 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.

3. Russ Wallace opened up discussion on spinach herbicides, a topic with much e-mail correspondence among the committee this past fall. 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 sited concerns that these products may not pass current EPA toxicological and ecological requirements.

4. Batts distributed data packet from Robin Bellinder related to herbicide screening in transplanted basil and asked interested members to contact Bellinder about cooperative work and/or suggestions.

5. 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. *Post-*

WSSA Note: Several support letters were written from minor-crop weed scientists explaining the benefits of trifluralin.

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 trials 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.

6. 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 interested in this device.

Summerlin Meeting

Attendees: Arsenovic*, Batts*, Bellinder*, Boydston, Brandenberger, Burgos, Doohan*, Felix*, Jennings, MacRae*, Mitchem, Monks*, Morishita, Nissen, Peachey, Stall, Zandstra, Zollinger*
*= committee members

Order of Discussion:

1. Cooperative project for 2011 involving reduction of PHI for metribuzin in potatoes. This project involves application of metribuzin at a reduced PHI (30 day) compared to currently labeled PHI of 60 days. Batts submitted request for this project to IR-4. Registrant (MANA) has concerns about response of potato tubers with application so close to harvest. A proposed treatment list was circulated to the group. Six sites have committed to conduct the trial and interest was shown by other researchers. Much discussion occurred about the treatments. *Post-meeting note: Batts modified the treatment list based on the discussion and re-circulated to researchers. Six sites to conduct trial in 2011*

Since the registrant for this request also stated that it was concerned about this project possibly causing a 'Data Call-in' from EPA, Arsenovic was asked exactly what a 'Data Call-In' is. Arsenovic explained this in general terms, but stated that it really is more complex.

2. EPA definitions for 'pesticide' versus 'device'. Topic submitted by Steve Fennimore (UC-Davis), who was unable due to his flight schedule. Fennimore wanted to get EPA definitions on what constitutes a 'pesticide' versus a 'device', as this can be confusing when dealing with such things as heat, steam, biofumigants, and organic herbicides. A one-page handout from EPA was distributed that defines these items. Batts directed attendees to seek out Fennimore if they have further questions about this topic.

3. There is a concern among many weed scientists involved with IR-4 that many protocols are developed without fully matching the intent of a request due to lack of supporting data (i.e., incorrect rates, timings, PHI, etc.).

Quite a bit of discussion occurred on this item. The group felt that this could lead to product labels that were of limited value, if the registration occurred at all. Lots of financial and human resources go to waste in these situations. Doohan led this discussion, as this was a priority item at the recent meeting of weed scientists in the IR-4 North Central region. The North Central weed scientists formulated a resolution on the subject at their meeting and wanted to discuss it with the larger group, with the intention of a resolution of a larger scale being written and submitted to IR-4. The biggest concern is that PCR's often are submitted without sufficient supporting data, even though a request for supporting data is triggered with every PCR submission. Doohan told the group that it is important to develop protocols that are sound from the beginning and that the North Central resolution suggests that IR-4 always require supporting data before a priority can be assigned.

Arsenovic told the group that she has recently been assigned the duties of initial review on all herbicide PCRs and that her policy is to follow up with the submitter on any incomplete PCR. That has not always been the procedure. Many, though not all, researchers are submitting complete PCRs according to her, but there will still be those that come in from non-researcher (growers, grower associations, county/regional extension agents) that may not be complete. Arsenovic told the group that approximately 80% of requests are from university personnel and that IR-4 receives approximately 50 new weed control PCRs per year. Of these, approximately half come in with supporting data.

Doohan suggested two ideas. 1) Create a searchable database that would include items such as soil type, varieties, product, crop to help protocol development and 2) Have protocol reviewed by field personnel, other than participating FRDs, that have expertise with particular crops/crop groups prior to approval.

Arsenovic did not think IR-4 had the resources to create the type of database suggested by Doohan. Batts mentioned that the registrants usually develop such a database with each of their compounds as they are going through evaluation/development. Arsenovic was asked if the manufacturers are being sent IR-4 performance data on product/crop combinations. She said most manufacturers know how to access the IR-4 database and pull the desired data straight from there to go with their in-house data. Doohan commented that a spreadsheet/database was still needed and, though it would cost much to develop, it would save money in the long run if it led to better protocol development.

The issue of appropriate amount of supporting data was raised. Generally, registrants require two years of acceptable data before they allow an IR-4 priority to be assigned. Consensus in the group was that any combination of years and locations was sufficient. Mitchem stated that having data from two (or even more) states in one year is more meaningful data than having data from the same site in two different years. Batts pointed out that this approach would also allow a PCR to be submitted and approved an entire year earlier. The group agreed that this would be acceptable. Arsenovic re-stated that the word 'year' is nearly always in the registrant requirements, and that they may stick to this wording. She also reminded the group that manufacturers nearly always ask for data that includes 2X labeled rate. Felix asked for a definition of 1X and 2X, since different areas may require different rates of a product for similar weed control. MacRae and others said the manufacturers consider conventional 1X to be the highest labeled rate allowed (this sometimes involves soil consideration) and that 2X is twice the highest labeled rate allowed.

MacRae suggested to Arsenovic that when incomplete PCRs arrive at IR-4, they go into the database with an indicator code of “D”, meaning ‘Data still needed’. Later in the meeting, this nomenclature suggestion was altered, because “D” currently is used for other purposes. The term “C without data” was suggested.

Doohan’s suggestion of external protocol review was then discussed. Batts suggested that these be called ‘expert panels’ in the resolution and that IR-4 could possibly set up these panels based on knowledge of weed control experience in specific crops/crop groups. Zandstra and Doohan suggested that each panel have at least one researcher in each region, to make sure that regional differences were accounted for. An obvious exception to this requirement would be situations where expertise on certain crops is not available in a certain area (i.e., tropical fruit/North Central region). Mitchem, Felix and others agreed that regional differences need to be considered. Often, certain environmental conditions could require, or preclude, different rates or timings and making a one-size-fits-all protocol could mean missing out on a valuable weed control tool. Batts stated that since we are recommending the use of these ‘expert panels’, we should commit to be fully engaged and responsive when draft protocols come to us for review. *Post-meeting note: Batts obtained wording from North Central resolution and modify it with the agreed-upon points from this meeting. Draft was sent to HMUC and all attendees. Final version of suggestions to IR-4 were approved by WSSA Executive Board and were sent to IR-4 on October 27, 2010.*

Bellinder commented that as a group we may be able to prevent some of these problems by simply communicating with each other very early in our investigations of product/crop combinations. Much like Brandenberger’s recent leafy greens publication and Batts’ proposal for 2011 potato trials, we should let each other know what we are about to try or have seen so that it will be easier to fulfill the requirements for PCR supporting data. The entire group agreed with this.

4. Zandstra asked why are some projects ‘neglected’ after establishment of a tolerance? He listed several product/crop combinations that he knew of that are in this situation. Many reasons for this were brought up, including crop safety concerns from registrant, EPA cautions being issued on products, and others. One question related to this involved wording in the IR-4 database on certain projects that states “EPA review concluded the enforcement method is inadequate”. There was some discussion on what ‘enforcement method’ actually refers to. *POST-meeting note: Batts investigated ‘inadequate enforcement method’ language. In these situations, EPA has determined that the current analytical method used for detection of the compound and its metabolites is not adequate to use in enforcing the tolerances established for the product in plant commodities.*

5. Status of Kerb re-establishment in leaf lettuce. This was discussed in a Dow presentation earlier that morning. Doohan said that, according to the presentation, 2013 will be the earliest that this will occur.

6. Herbicides deemed exempt from tolerances. Zandstra brought this up for discussion and asked several questions. What determines if a product can be listed as such? Imazomox is the most notable example of this. With no need for a tolerance, Zandstra asked why numeric tolerances can be found for imazomox on certain crops. He also asked if IR-4 could somehow

take advantage of the 'exempt' rule to get other herbicides quickly available. No one was really sure what the answers were to his questions. *Post-meeting note: Batts investigated with IR-4 Headquarters and was told that situations like this are very few and far between.*

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 2011: To continue to identify and resolve weed control issues in minor/specialty crops.

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. In the event that some or all of the HMUC suggestions to IR-4 are incorporated, HMUC will assist in any way possible to help make the transition to the new policy go smoothly. This way includes, but is not limited to, participation on 'expert panels' outlined in the recommendations.

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 2011: None

Other requests for the Board: None

