

2008 Meeting of WERA-060

12 May 1:30 pm – 13 May 12:00 pm 2008

Hilton Hotel, Fort Collins, CO

Attendees (physically present): Mark Whalon, Carol Mallory-Smith, Bill Dyer, Sarah Ward, Scott Nissen, Andy Wyenandt, Meg McGrath, and Tom Holtzer (Administrative Advisor).

Additional participants (connected by teleconference):

Blair Siegfried, Mark VanGessel, Gerald Holmes, and Tim Dennehy.

Tim Dennehy coordinated and funded the teleconference connection to permit participation of committee members unable to travel to the meeting. All members were greatly appreciative of this opportunity to increase involvement, and are very grateful to Tim for making this possible, but acknowledged that interaction was best amongst those physically present.

Meeting Notes:

Committee Business Activities:

Mark Whalon led a discussion about the Global Arthropod Pesticide Resistance Database (APRD) and the Resistant Pest Management (RPM) Newsletter (now in its 14th year) which are housed on a server at Michigan State University. These originated from a committee on resistance that preceded WERA060. These resources are well used. APRD has almost 10,000 cases.

Andy Wyenandt was elected to be the next WERA060 Chair and Mark Whalon the Secretary/Chair-elect, to serve as Chair in 2010.

The next WERA060 meeting will be held around (e.g. immediately before, during, or after) the Sixth International IPM Symposium to be held in Portland 24-26 March 2009. Carol Mallory-Smith will handle local arrangements. The 2010 meeting will be held in Washington, DC, and arranged by Mark Whalon. This will provide an opportunity to meet with USDA CSREES staff, EPA staff covering pesticide resistance and others, as was done the last time this committee met in DC.

Possible opportunities were discussed for WERA060 to sponsor a symposium or discussion session on pesticide resistance during an up-coming scientific conference. This is a committee objective.

Committee Discussion:

Most of the meeting was devoted to informal presentations and discussion of research and extension activities pertaining to pesticide resistance and its management. Exchange of information across disciplines is the primary objective of the committee. Researchers participating in the 2008 meeting cover all three major pest disciplines (insects, weeds and pathogens). Several committee members are involved in distance learning courses

covering pesticide resistance, mostly for single disciplines. These activities were also discussed. There is a need for effort on a cross-discipline course, which WERA060 members together could achieve. Bill Dyer volunteered to lead an on-line discussion among committee members about developing an online course dealing with Pesticide Resistance and its Management.

Several resistance themes cutting across disciplines arose during the discussion. One was predicting resistance. There have been cases where field resistance was predicted to occur and it still hasn't, and cases where resistance was not predicted to occur but it did. For example, insects were found surviving on crops genetically engineered with Bt toxin gene soon after these transgenic crops were commercialized. Since these insects were highly resistant, there was concern that control failure would soon occur. However, several years later these transgenic crops continue to be an effective tool for managing insects. Insect pests tolerating high concentrations of neonicotinoid insecticides were found several years ago, resulting in great concern about the future of this new class, but they are no longer found. On the other hand, the herbicide glyphosate (Round-up) was thought to have a low risk for resistance developing. However, the selection pressure from multiple applications per season to Round-up Ready crops has resulted in resistance in some weeds.

Other topics covered included: Procedures for testing pests for resistance. Documenting its occurrence especially in commercial fields where an integrated management program is implemented. Determining impact of resistance on control. Cost of resistance. Similarities and differences in resistance management practices across disciplines. Predicting resistance. Resistance mechanisms. Laboratory versus field resistance. Funding resistance research. Working with industry on resistance issues. Challenges of getting information to growers. Andy Wyenandt shared tables he has been involved with developing that have resistance risk of fungicides for specific vegetable crop diseases.