

III. IPM Priorities: Fostering IPM as a Resource Conservation Practice in Collaboration with the Natural Resources Conservation Service.

4a. Problem, Background and Justification

This proposal addresses priorities identified by the NE IPM Center and our Vegetable IWG. The 2007 RFA for NE IPM Center Partnership Grants indicates that the Center has recognized as top priority initiatives that support partnerships with the USDA Natural Resources Conservation Service (NRCS) aimed at helping farmers to practice IPM. Additionally, the Vegetable IWG has identified as a top priority the development of a collaborative partnership with NRCS to promote utilization of available resources and foster adoption of IPM through NRCS conservation programs.

USDA NRCS programs are designed to help farmers adopt conservation practices, such as IPM techniques, that protect the environment and help to offset some of the costs of adopting new practices. One such program, NRCS Environmental Quality Incentive Program (EQIP), is an excellent fit for promoting greater adoption of IPM practices, especially 'cutting edge' practices that could be perceived as risky by farmers. The mission of the EQIP program and other NRCS technical assistance services is very much aligned with the goals of IPM, the NEIPM Center, and the National IPM Roadmap.

Unfortunately, recognition of the benefits of IPM, both in terms of environmental protection and farm profitability, is often overlooked in EQIP-funded projects. Initiatives such as the one we are proposing, can dramatically improve utilization of NRCS programs to include and support IPM on the farm. For instance, in Michigan (Brewer et al. 2004b) modification of NRCS standards to include more IPM practices, coupled with training and outreach, was credited with doubling the number of projects funded and a nearly 8-fold increase in incentive payments allocated for IPM. In Connecticut, the percentage of EQIP funds approved for pest management increased from zero to 8% with the initiation of NRCS cooperative agreements with CT Cooperative Extension and the CT Agricultural Experiment Station to provide IPM training services to growers. In Idaho, the percentage of EQIP funds approved for Pest Management increased from 0.4% to almost 5% with the initiation of a partnership between University of Idaho Extension and NRCS (Attachment D). Another successful collaboration between IPM specialists, fruit growers and NRCS in Pennsylvania has resulted in financial support for IPM scouting and other IPM practices. Over a quarter of \$1 million has been given to fruit growers in Pennsylvania as part of an NRCS incentive program aimed at supporting environmentally friendly pest management and pesticide handling alternatives (Biddinger, D. and E. Rajotte, pers. com., <http://paipm.cas.psu.edu/NewsReleases/ama.html>). We anticipate that our proposed effort, if funded, will enable us to make similar gains across the NE region.

In 2005 we initiated a project, in concordance with the 2005 Vegetable Working Group plan of work, to build collaborative partnerships between NRCS and other agricultural support organizations including Cooperative Extension, state agriculture departments, and independent crop advisors to improve delivery of IPM technical service, information, and incentives to northeast vegetable producers. During the first year of this project, the Vegetable IWG 1)

developed contacts and initiated working relationship with NRCS agencies in all of the northeastern states, 2) presented an IPM workshop and discussion forum at NRCS's annual regional technical conference in Rhode Island, and 3) organized and hosted a two-day collaborative meeting in Harrisburg, PA, held in December 2005.

At the Harrisburg meeting, 35 participants representing IPM programs, federal and state agencies, the farming community, the Vegetable IWG, and NRCS representatives from across the northeast identified needs and developed an implementation strategy for further partnership. This groundbreaking regional meeting began the process of building understanding among members of the IPM community and NRCS and opened the door for further collaboration. The success of this meeting is reflected by the fact that it served as a model for a similar meeting organized by the NC IPM Center held in St. Louis in November 2006. The NE Vegetable IWG was invited to participate at this second meeting, where Ruth Hazzard (Vegetable IWG chairperson) presented and shared insights from the NE Vegetable IWG's projects at the St. Louis meeting.

The Vegetable IWG received funding from the NE IPM Center in 2006 to expand the initial network of IPM specialists, NRCS partners and farmers and to further clarify the support needed to advance the inclusion of IPM in NRCS-supported programs. Under this phase of our project we have networked with our NRCS partners across the Northeast to identify tools used in each state that can be adapted for use across the region, including model conservation plans, cooperative agreements, training tools, guidelines, implementation and certification tools, and more. We are working with the NE IPM Center to make these tools readily available through a website that serves as a centralized information clearinghouse and toolbox. In addition, we have organized and presented a second training workshop for NRCS staff at their annual Technology Conference in Virginia and farm tours in MA and ME (Attachment E) in 2006. In Massachusetts, the farm tour drew 30 growers who learned about how this grower is using the support of the EQIP program to improve water management and reduce risks associated with pesticides on his farm through the use of advance IPM practices in sweet corn and Brassica crops. For a complete list of NRCS/IPM partnership activities to date see Attachment F.

The Vegetable IWG has built a strong foundation of interest and engagement and is now very well positioned to move forward in addressing the needs of growers, Extension, NRCS, and other Agricultural professionals to advance utilization of IPM in NRCS conservation programs. Much has been accomplished in the past year towards linking expertise and resources towards the end of helping farmers adopt IPM practices. Ultimately, partnerships and outreach need to occur at the state-level but it has become clear to the Vegetable IWG that regional collaboration and information sharing among states can be of great benefit. This has been proven already through the sharing of programs, training models, and technical tools among states through this Vegetable IWG initiative. Information and contacts from this regional networking will enable the Vegetable IWG to establish and/or strengthen local initiatives at the state level.

4b.Objectives and Anticipated Impacts.

Objective 1. Demonstrate and improve understanding among NRCS, educators and farmers, on how IPM fits within the framework of farm conservation planning and implementation.

Objective 2. Test the utility of tools designed for use in the development and assessment of the IPM plan component of a farm conservation plan.

Objective 3. Demonstrate and educate farmers about the process and requirements of participating in NRCS conservation programs.

Anticipated Impacts:

This project will result in an increase in the number of farms and acres of vegetable production approved for cost-share funds supporting IPM implementation. NRCS staff will have an improved understanding of how IPM can be used to address resource concerns and protect natural resources from potentially damaging agricultural practices. Agricultural educators and farmers will have an improved understanding of the utility of NRCS programs for supporting IPM and other agricultural best management practices as part of a sustainable approach to farm production.

4c. Approach and Procedures

Objective 1. Demonstrate and improve understanding among NRCS, educators and farmers, on how IPM fits within the framework of farm conservation planning and implementation.

To meet this and the following objectives a series of on-farm workshops in several states will be organized and presented. Thus far, potential partners for these workshops have been identified in PA (Ed Rajotte at Penn State University), NY (Jean-Paul Courtens, farmer member of the Vegetable IWG), ME (Kathy Murray, Maine Department of Agriculture and Vegetable IWG member), MD/DE (JoAnne Whalon, Kate Everts, Luke McConnell, Vegetable IWG members) and MA (Ruth Hazzard, chair of the Vegetable IWG). Each has agreed to organize at least one workshop. Support and coordination of these workshops will be provided at the Maine Department of Agriculture by Kathy Murray. For each workshop, state and county-level partners from Extension, Soil and Water Conservation Districts, NRCS field offices, agricultural support organizations and others will be engaged to identify a farm to host the workshop, develop an agenda and provide logistical support. Handouts, agendas, speaker lists, descriptions of hands-on activities, photos, and examples of publicity materials and methods will be shared region-wide during the planning phase and will be posted to the NE IPM Center's IPM/NRCS website to serve as a resource and training model.

Objective 2. Test the utility of tools designed for use in the development and assessment of the IPM plan component of a farm conservation plan.

These workshops will serve as pilot training sessions for NRCS staff, agricultural educators, and farmers to test the utility of tools we have identified for use in the development and assessment of the IPM plan component of a farm conservation plan. Further modifications to these tools will be based on feedback from workshop participants to ensure that the final products are highly effective. These workshops will also provide a training opportunity for NRCS staff and others to learn how to use tools developed under the 2006 Partnership project. A model IPM plan developed by Maryland NRCS will be modified and adapted for use in all NE

states. Modifications may include addition of cultural, biological, chemical and mechanical IPM practices. IPM record-keeping and evaluation tools will be included. These tools are being developed under our 2006 project in cooperation with our partners from NRCS, Extension and other agencies and will be ready to be tested in 2007.

Objective 3. Demonstrate and educate farmers about the process and requirements of participating in NRCS conservation programs.

Each workshop will include information sessions to enable growers to learn how to apply for NRCS cost-share programs, and what practices are eligible. Workshops will be publicized via newsletters and meetings through grower associations, Extension, NRCS and other pathways.

4d. Evaluation Plans.

To document these impacts we will collect and compare data from NRCS EQIP cost-share programs before and after this initiative and among states. We will track changes in numbers of acres, numbers of farms, and dollars allocated from NRCS EQIP programs for IPM. Pre and post workshop participant questionnaires will be administered to assess workshop effectiveness. The numbers of participants at each workshop will also be used as a measure of impact. Finally, we will summarize and compare data over the 3-year period begun in 2005 to determine the impacts of these NRCS/IPM projects.