Partnerships with the USDA Natural Resources Conservation Service

We propose to engage in a collaborative partnership with NRCS agencies across our region to establish a network and develop plans for sharing expertise, resources and outreach activities.

The 2002 Farm Bill authorizes the USDA Natural Resources and Conservation Service (NRCS) to deliver technical assistance and financial incentives to farmers with the goal of increasing environmental stewardship of farmlands. Through the NRCS Environmental Quality Incentive Program (EQIP), qualified growers are provided with financial assistance as an incentive for adopting practices that protect environmental quality. This program 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 and the NEIPM Center.

Unfortunately, recognition of the benefits of IPM both in terms of environmental protection and farm profitability is often overlooked in EQIP-funded projects. A recent survey showed that only 25% of vegetable and fruit growers were aware of the availability of EQIP incentives for IPM use (Brewer et al. 2004). The same study showed that on average, less than 1% of EQIP funds allocated to grower contracts during 1997-2002 were used to implement pest management practices.

There is variation among the different NRCS state programs in terms of the degree to which existing IPM expertise and tools are utilized. Within general guidelines established at the federal level, state NRCS programs can add to technical standards and incentive frameworks to further support the adoption of IPM practices that have conservation benefits. For instance, Massachusetts NRCS has incorporated the Massachusetts IPM protocols (Hollingsworth and Coli 1999; see also http://www.umass.edu/umext/ipm/index.html) into the NRCS Conservation Practice Standard for Pest Management (Code 595, see Attachment F). They have also developed a Pest Management Calculator (Attachment G; Devergilo and Johnson 2002) which establishes incentive payments for adoption of IPM at low, medium or high levels (with payments at 10, 20 and $30 per acre). It also details specific pest management practices that conserve air, water, soil, plant or animal quality, and assigns a payment rate to each one. Thus, a grower who uses multiple practices may qualify for payments that are commensurate with the actual costs and risks associated with using IPM in high value crops such as vegetables. The Code 595 also incorporates the NRCS Windows Pesticide Screening Tool (WIN-PST) into its standards. This model combines site-specific data on soil type, pesticide application method, crop, and risk evaluations with data on pesticide chemistry and conservation practices to help growers decide what pest management practices to use.

The approach taken by Massachusetts NRCS could serve as a model for other NRCS state programs in the region. In fact, Rhode Island NRCS has expressed interest in utilizing an approach similar to that taken by MA NRCS, but has not yet done so. While every state will want to approach this in ways that suit their unique needs, the approach taken by MA NRCS provides another model for how to build incentives for IPM into the existing structure of the EQIP program.

All states can benefit from sharing expertise and information regarding IPM tools and approaches. A regional approach to networking will facilitate timely information exchange and improved technical expertise leading to enhanced delivery of technical and financial support for IPM adoption on the farm.

A recent collaborative project conducted in Michigan (Brewer et al. 2004) showed that training and outreach are key to promoting IPM through partnerships between NRCS, Cooperative Extension and other agencies. This project, which included IPM training for NRCS Technical Service Providers, modification of EQIP award standards, and outreach to vegetable and fruit producers was credited with doubling the number of projects funded and a nearly 8-fold increase in incentive payments allocated for IPM.

The Michigan project and the Massachusetts NRCS standards provide well-documented models upon which we can build to develop effective partnerships in the Northeast. Our objective is to build collaborative partnerships between NRCS and other agricultural support organizations including Cooperative Extension, state agriculture departments, independent crop advisors and others, to improve delivery of IPM technical service, information, and incentives to northeast vegetable producers.

Our proposal has generated a high level of interest in participation within NRCS. As a result of the initial discussions with NRCS, the NE IPMC Vegetable IPM Working Group has been invited to present a workshop on IPM at the NRCS Eastern Regional Technical Training Workshop to be held in Rhode Island in April 2005. Our Work Group was also invited to set up an informational display at the workshop that will present an excellent opportunity to begin dialogue and networking with NRCS staff across the region.

Discussions with NRCS representatives from Massachusetts (Richard Devergilio, State Conservationist), Maine (Bill Yamartino and Chris Jones, Assistant State Conservationists), New Hampshire (Kim McCracken, Resource Conservationist), Maryland (John Timmons, Crop Land Agronomist), and Rhode Island (Eric Scherer, State Conservationist) confirm that our project will fill a need for building effective partnerships between organizations represented by the Vegetable IPM Working Group and NRCS offices in our region.

A gap identified by NRCS is the need for partnering with IPM specialists to provide training for NRCS-contracted Technical Service Providers (TSPs). A solid understanding of the processes and principles of IPM as they relate to farm conservation practices is key to allocating financial support and incentives for IPM adoption through NRCS programs; however, NRCS is not allowed to train TSPs directly. Our project will lay the groundwork for a partnership to provide IPM training for TSPs.

This partnership will also enable IPM specialists and service providers to develop an improved understanding of how IPM practices fit within the framework of farmland stewardship and resource conservation. A good understanding of conservation objectives is critical to sustainable farming. IPM practices that are easily recognized as mitigating practices designed to conserve and protect air, land and water resources are more likely to be promoted by NRCS and built into their incentive structure, and more readily adopted by farmers. Our project will provide a foundation for increased adoption of IPM practices designed to address documented environmental problems such as air or water pollution, or destruction of beneficial biotic components of farm ecosystems.

Our proposed project will make a significant contribution to Northeast agriculture and will fill an important need. This project will enable us to partner with USDA NRCS across the region to identify barriers and develop solutions for increasing delivery of IPM support and incentives to vegetable producers.

This project directly meets two of the goals of the National IPM Roadmap: 1) improve economic benefits of IPM, and 2) minimize adverse environmental effects of pests and IPM practices. It also indirectly meets the third goal, which is to reduce potential human health risks from pests and the use of IPM practices.

Economic Benefits: NRCS programs can provide financial incentives to help offset the perceived economic risks of adopting new IPM tools. These incentives can also be used in creative ways to support IPM through outsourcing IPM services such as scouting or labor-intensive cultural pest management practices. A successful model of this approach is a Maine low-bush blueberry IPM program in which support of scouting services is provided through a local Soil and Water Conservation District using funding through the NRCS Environmental Quality Incentive Program (EQIP).

Minimize Environmental Impacts: The mission of NRCS is to assist farmers in minimizing environmental impacts of farming. Our proposed partnership will ensure that northeast vegetable farmers have improved access to technical support and incentives for mitigating environmental impacts of pests and pest management practices.

Reduced potential human health risks from pests and the use of IPM practices: We expect this project to improve adoption of IPM and reduce reliance on pesticides, thereby reducing risk of pesticide exposure among farm workers and neighbors.

The Vegetable IPM Working Group has demonstrated an ability to engage and work with representatives from a diverse array of agencies, organizations, and independent consultants and the farming community as evidenced by its past successes, including development of a resource database (2004) and near completion of a pest management strategic plan (2004-2005).

Objective 3. Develop collaborative arrangements and educational tools with NRCS agencies to promote further adoption of IPM in NE vegetable production.

We propose to engage with USDA NRCS representatives to develop a collaborative strategy for delivering technical resources, training and/or incentives to producers, crop advisors, and others with the goal of minimizing environmental, health, and economic risks through increased adoption of IPM practices in northeast vegetable production. Potential strategies to be explored will include 1) providing IPM training to NRCS Technical Service Providers, 2) providing education to growers at local and state levels to promote utilization of existing incentive programs, such as EQIP, to promote further adoption of IPM, and 3) providing education for other agricultural support agencies and organizations (such as Cooperative Extension and commodity associations) to promote and facilitate partnerships with NRCS to promote IPM adoption, and 4) examining the feasibility of modifying incentive structures to promote further adoption of IPM practices.

1. **Conduct IPM workshops for NRCS**. Two members of the NEIPMC Vegetable IPM Working Group will present a workshop on IPM at the NRCS Eastern Regional Technical Training Workshop to be held in Rhode Island in April 2005. We will also send representatives of the Vegetable IWG to other regional NRCS meetings during the course of the Project.
2. **Develop a network of key participants in each state**. Representatives from each NRCS state office, NRCS regional centers, Cooperative Extension IPM Coordinators, IPM specialists, crop advisors, and vegetable commodity organizations will be invited to participate with members of the NEIPMC Vegetable Working Group in the planning phase. One NRCS representative will be invited to join the Vegetable IWG, and at least six key participants will be invited to meet with the Vegetable Working Group at their annual meeting in November 2005. At this meeting we will share knowledge about 1) how IPM is currently being implemented and supported through NRCS, Cooperative Extension and other programs and 2) how IPM practices and incentive programs intersect with other approved vegetable production practices, and 3) ways of partnering and funding support for IPM needs at the regional, state, and local level. Our goal for the meeting will be to develop the draft of a strategic plan for implementing actions in partnership with NRCS.
3. **Identify training resources**. We propose to evaluate existing IPM training modules and curricula to determine how they may be used to provide training for NRCS Technical Service Providers and/or NRCS staff. While the specifics will depend upon the outcome of the initial meeting, we anticipate that we may hold a pilot training session in year two of the project. We will gather existing training materials or develop new ones.
4. **Strategic Plan follow-through**. Additional funding will be sought from appropriate programs, such as the USDA Conservation Partnership Program, to implement the strategic plan to be developed as part of this proposal.

I. Evaluation Plans.

Objective 3:

The success of our project will be measured in six ways

1. Successful development of a network of key representatives from NRCS, Cooperative Extension, other agricultural support organizations or agencies (including independent consultants), and the farming community interested in promoting increased utilization of NRCS technical support and incentives for IPM in northeast vegetable production (Winter-Summer 2005)
2. Successful hosting of meeting of key representatives from this network and the NEIPM Vegetable Working Group to identify needs and strategies for partnering in delivery of IPM information, services and incentives to growers. (Late Fall 2005)

3. Development of a strategic plan for partnership with NRCS to provide incentives and technical assistance for increased adoption of IPM in northeast vegetable production (Winter 2005-2006)
4. Successful engagement of NRCS staff in learning about IPM practices at the NRCS Regional Technical Workshop (April 2005 and other later dates)
5. Successful review and needs analysis of existing IPM training modules and curricula for their potential utility in IPM training for NRCS Technical Service Providers (Winter-Fall 2005).
6. If it is part of the strategic plan, implementation of a pilot training session for NRCS and Extension staff about utilization of NRCS technical support and incentives for IPM.

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