

University of Wisconsin - Center for Integrated Agricultural Systems' PESP Strategy

Describe your Organization's Five-Year Goals Related to Pesticide Risk Reduction

We anticipate a scaling up of regional horticultural specialty crops in the states serving Chicago and Twin Cities markets. This is due to a number of factors, including increasing demand for local food, increasing transportation costs, reduced water availability in the Western states, climate change and its impact on food production, and other factors affecting the sustainability of the food system. To address these issues, the Center is engaged in a number of projects related to sustainable agriculture and food systems. We intend to be out front in scaling up specialty crop production, by

1. establishing a new model for Extension programming when engaging a new cropping system that includes gathering baseline and on-going data on IPM adoption and pesticide risk;
2. working with emerging horticultural crops to develop production systems that reduce pesticide risk;
3. anticipate the demand for food crops grown and certified "sustainable"; and
4. support specialty crop grower participation in federal conservation programs.

What do you envision doing (broadly) to try to resolve your major issues?

Some of the issues faced in addressing growth in specialty crop production include:

- a long history of dwindling resources in Extension to serve specialty crop producers in the five state region serving this market - MN, IA, IL, MI, WI;
- an historic trend toward regionalizing resources (Extension, research) in selected counties or states as a way to make up for dwindling resources and the ensuing difficulty in breaking down barriers to sharing these resources outside of the county or state where they reside;
- lack of information on pesticide risk that can be easily communicated to farmers and policy-makers for decision-making purposes;
- challenges that growers face in keeping good pesticide use and IPM records;
- confusion in sustainable food certification - many labels, limitations of organic production, certification and record-keeping challenges, consumer fatigue, etc.
- limited number of farmers willing to produce for a regional market, in large part because of unfair domestic trade relations;
- federal conservation programs geared toward commodity crops;
- federal commodity programs creating market aberrations.

Aligning campus resources to address these issues is one way we are attempting to resolve our major issues. The Center is joining with the Nutrient and Pest Management program and the IPM program to form the Institute for Sustainable Agriculture. The new

Institute will be better positioned to work with campus Departments and state Extension to align on sustainable production issues. The Institute intends to take the lead on regional sustainability issues for the College of Agricultural and Life Sciences.

Goal 1 and Tactics

Goal:

Establish a new model for Extension programming when engaging a new cropping system that includes gathering baseline and on-going data on IPM adoption and pesticide risk.

We've been successful in showing the advantages of collecting baseline IPM and pesticide use data to growers and Extension through the Eco-Fruit program. The program has also made clear what expertise is required to establish pesticide risk and IPM recommendations relevant at the field level (and often this expertise is not available).

Tactics:

1. Continue with the eco-hit program. Currently, the apple project is fully funded through June 2009. Growers are meeting this spring to articulate needs beyond the current funding. There is considerable interest in adopting broader eco-system goals, contending with abandoned orchards, and a continued need to improve in-field record-keeping. There is also a growing interest in certification and developing infrastructure to serve the regional market. The strawberry program is partially funded through June 2009. Additional funding will be necessary to operationalize the field component, and a grant proposal was submitted to the NCR IPM program to fund two years in the field. There is growing interest in a blueberry project, although this would clearly need to be a joint project with Minnesota growers. There is strong interest in a wine grape project, especially from the state's Extension Fruit Team. Conceivably, this could be a joint program between MN, IA, IL and WI, although it is unclear from where adequate resources would emerge. Materials from MI and CA grape growers could potentially be revamped for use. Wisconsin's hit team discussed other emerging hit and nut crops and is interested in adopting the model developed for the eco-apple project, with the caveat that there must be adequate funding and other resources to develop the IPM survey and the risk analysis. To date, the yearly IPM and pesticide risk analysis is time-consuming and a resource drain, yet it is precisely this feedback that gives growers incentive to do better the next year.
2. Continue with the eco-potato program and expand to include more growers and additional vegetables. (This work is currently housed in the Nutrient and Pest Management program, and will be aligned with the Center's work as part of the new Institute for Sustainable Agriculture, an umbrella unit for the work of both units.)
3. Work with NRCS, the IPM Institute of North America on their project to develop a comprehensive risk management tool that can be used by growers and agencies

to assess pesticide risk. EPA can and should be involved in this project, although how is not presently clear. Tom Green is managing the project and the first meeting is in early January. (Our resources are tight so I will not be attending.) The plan is to have a working tool in place within three years. We are hoping that they develop prototypes around apples and strawberries to save us effort here in Wisconsin.

4. Explore ways to break down the barriers to multi-state work. If EPA has examples from other sectors where this has been successful, Institute staff needs to learn about them ASAP.

Goal 2 and Tactics

Goal:

Work with emerging horticultural crops and farmers to develop production systems that reduce pesticide risk, including but not limited to organic. This needs to be a stated goal in all future work and one that the Center champions.

Tactics:

1. Center staff needs to participate in Extension Fruit and Vegetable teams to put pesticide risk reduction at the front and center for all future field work by the teams. We are currently working with the leadership from both teams to embed this general commitment into their work.
2. The Institute needs to communicate success stories from other states and continue to locate resources necessary for in-field application of risk-reduction measures by the teams and by researchers housed in production-related departments.
3. The Center needs to support teams of researchers to advance production knowledge to address pesticide risk reduction, production economics and market pull concurrently. These may need to be multi-state teams. EPA's support for multi-state work would be much appreciated.

Goal 3 and Tactics

Goal:

Anticipate the demand for food crops grown and certified "sustainable" and align our work with growers on record-keeping for IPM and pesticide risk to link seamlessly with certification.

Tactics:

1. Keep in close contact with certifiers such as The Food Alliance Midwest, and marketers such as Red Tomato, on behalf of growers who may potentially wish to certify.
 2. Work with organic certifiers on data management issues. Potentially, a project to standardize the certification data collection process could ultimately improve our understanding of the organic industry while prototyping a system for data management for other certification endeavors. There is some interest here, especially from some private certifiers and the National Organic Program.
 3. In-field record keeping remains a weak spot in the eco-hit program. EPA assistance in identifying good, relatively inexpensive models or providing support to develop such a model would be most welcome.
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Goal 4 and Tactics**Goal:**

Support specialty crop grower participation in federal conservation programs. This group of growers has little history with federal programs yet would benefit from participation in conservation programs specifically. Our experience with developing an orchard-specific 595 Pest Management Standard for use with Wisconsin's EQIP program has shown that the program can effectively engage a significant number of growers in a short time and help them master the tools necessary for pesticide risk reduction. We are able to measure orchard grower participation in 595 but are unable to track actual pesticide risk reduction as we are with growers involved in the eco-hit program. (This may change with implementation of the pesticide risk tool currently under development.)

Tactics:

1. Serve as a link between the State Technical Committee, NRCS staff, and specialty growers on issues of particular importance to growers. Assist growers with shaping the 595 and other relevant standards to support their efforts to retool production to be more sustainable.
2. Provide technical assistance to growers about how the program works and how they may benefit from participation. This may include alerting growers to shifting application deadlines, new provisions, or administrative issues as they arise.
3. Provide training to the agencies on specialty crop production and its importance in their locality. Equip the agency to write conservation plans specific to specialty crops or find consultants who can do it for them.