Northeastern IPM Center – IPM Partnership Grants – 2010 – Proposal
Project Description

PD: Michael Rozyne
Project Title: Extending Advanced IPM Marketing to New Crops
1. Project Category: IPM Working Group (IWG):

2. Project Summary

Red Tomato, a non-profit organization, will convene and coordinate an IPM Working Group including growers, agricultural scientists and extension agents, and its own in-house team of salespeople, communications manager, and art director. The close working relationship among growers, scientists, and marketers adds depth and practicality to this project, and has previously resulted in a highly successful Eco Apple™ program which has grown 500% in four years.

In this project, the Eco Apple IPM Working Group will build on the success of the Eco Apple program by expanding this growing/marketing model to include other crops. Given its demonstrated effectiveness, expanding this proven model to other crops is a logical next step.

Red Tomato is proposing to expand the existing apple Working Group (IWG) to include other fruits and vegetables, adapting the Eco Apple model to these crops. We will evolve the current IWG for this purpose, exploring the right structure and support mechanisms to help growers to adopt IPM methods. This expansion will allow many other growers to reap the benefits of Red Tomato's years of research in marketing eco crops. This project will foster science-based pest management that safeguards human health and the environment, while at the same time generating economic benefits for those growers adopting IPM practices. It thus will further the implementation of IPM in the Northeast.

3. Background and Justification

Problem and Context.

The greatest single obstacle to the widespread adoption of IPM methods by commercial produce growers is the fact that while the benefits of IPM accrue to society as a whole, the costs and risks are borne by the growers themselves. The produce marketplace tends to recognize certain "seals of approval" for pesticide-free products, foremost among them the "USDA Organic" label; without such recognizable labels, there are no marketplace incentives for growers to pursue these practices. In addition, many farmers don't see themselves as potential organic farmers, whether for cultural or personal reasons, a belief that their crops are not suited to organic methods or that organic methods are too difficult to implement on a commercial scale in this region, or due to a lack of models and available assistance. In the Northeast, where funding cuts are threatening Cooperative Extension Service, sales representatives of the pesticide corporations are now a primary source of technical information available to growers. It's getting harder for growers to shift their growing practices toward less utilization of pesticides.

However, when growers have access to an organized body of information and a learning community, including other growers, which could demonstrate the effectiveness of these methods, they are motivated to move along a continuum from "dabbling" in IPM to a higher level of commitment to advanced IPM methods. The success of the Eco Apple program at Red Tomato has amply demonstrated the effectiveness of such a community. This program works

well with apple growers who are interested in exploring more rigorous IPM methods. However, no such program yet exists at Red Tomato for other crops.

Background on Red Tomato. Red Tomato (RT) is a mission-driven, nonprofit organization that works in the marketplace. RT works closely with farmers and scientists as it creates supply chains of locally-grown products to satisfy the needs of its customers (mostly supermarket chains) and their customers (the ultimate consumers).

Today RT has trading relationships with 40 farmers in the Northeastern states. Since 1998 RT has brokered over $12 million [wholesale] dollars of family farm produce (over $3 million in 2008 alone). RT products reach hundreds of thousands of consumers through numerous stores in the Northeast. In 2005, Red Tomato convened and coordinated a multi-state IPM Apple Working Group including veteran apple growers, plus scientists and extension agents from the Univ. of Mass. and Cornell, and its own in-house team of salespeople, communications manager, and art director. The goal of this group was to address the need for adoption of advanced IPM practices in Northeast apple production and to establish a market-based mechanism to provide economic rewards and incentives that lead directly and indirectly to more widespread adoption of advanced IPM practices for apples. RT launched its own eco certification for advanced IPM apples and hired Thomas Green of the *IPM Institute of North America* to write the "Eco Apple Protocol and Grower Self-Assessment," and to manage third-party certification of farms.

As these IPM practices are generally more expensive than conventional practices, growers are hesitant to adopt practices that make them less competitive, reduce financial returns, or that may cause crop loss or reduction in crop quality. Yet there is a rapidly growing demand for local and regional produce that is accessible, great tasting, and less harmful to the environment. Some of Red Tomato's buyers will pay $1-$3 more per case above market prices for high quality, locally and ecologically grown produce, when there are tangible, objective differences in the product.

The Eco Apple program has grown at a steep pace, from $400,000 in sales in 2005 to over $1.9 million in 2008. The key to this success is an aggressive branding and marketing program which identifies "Eco Apples" as environmentally friendly, certified products of local sustainable agriculture. These specially branded and packaged apples command a higher price in the supermarket, and this premium is passed on to Eco Apple growers. Clearly this model is a successful one, and one which we believe can be adapted to other crops, with similar advantages to the promotion of advanced IPM practices. The close working relationship that already exists among growers, scientists, and marketers in the Red Tomato network adds unusual depth and practicality to this project.

In 2005, the first year of the Eco Apple program, enrolled growers applied 42% less insecticide compared with 2004 (as measured in dollars of insecticide applied). In the 2006 annual meeting, the group agreed on numerous further changes to the IPM protocol, including tightening rules for application of fungicides and reducing the allowable amount of Phosmet, the last allowable organophosphate insecticide. In 2007, primarily in recognition of conditions in Pennsylvania, new pests were added to the protocol. Best practices for these insects were identified. Further pesticide restrictions, quality control standards and conservation measures were also added, and the minimum score required on the point-based part of the protocol rating system was raised

from 16 to 20, thereby raising the bar. Since 2008, the protocol has no organophosphate insecticide allowed. (For further details, see the Eco Apple Protocol posted online at http://www.redtomato.org/ecoapple.php)

We see this project as building on earlier efforts, including the 2006 and 2007 projects funded by the Northeastern IPM Center to educate supermarket trade buyers and retail consumers about IPM. We will also build on the Center's 2008 Minigrant to help Red Tomato produce a video about the Eco Apple program. Our ongoing efforts to communicate IPM benefits have succeeded in raising awareness of IPM and of the "eco" position as somewhere between conventional and organic.

4. Expansion to Other Crops

> ***"****An important priority is the development and implementation of economical and effective IPM systems for crops and commodities consumed by humans."*
>
> - National IPM Road Map goals

Red Tomato is proposing to expand the existing apple Working Group (IWG) to include other fruits and vegetables, adapting the Eco Apple model to these crops. We will need to evolve the current IWG for this purpose, exploring the right structure and support mechanisms to help growers to adopt IPM methods. We will need to engage additional scientists and other experts as resources for this evolution. We will also need a well thought-out plan to create a good structure and set of activities to address the needs and interests of a more diverse group of growers.

The Eco Apple program is on sound footing. Given its success, expanding this proven model to other crops is a logical next step. Other tree fruit such as peaches are especially promising next candidates. Peaches, for example, have been consistently identified as the fruits containing the highest risk of toxic pesticide exposure (per the Environmental Working Group, The Organic Center, etc.). Yet local peaches are highly sought after in the Northeast, due to their exceptional freshness and flavor.

This expansion will allow many other growers to reap the benefits of Red Tomato's years of research in marketing eco crops. The potential benefits to the region's air and water, and to the health of consumers, make this project especially attractive to the Working Group.

Uniquely poised for success. There are several historical and circumstantial factors that point this project toward success:

- Red Tomato is unusual in its combination of mission-driven structure, business experience and culture, and close working relationships with farmers and scientists. This makes RT a qualified messenger for the rather complex message about IPM.
- Advanced IPM offers an extraordinary opportunity to provide millions of shoppers with earth-friendly safer produce.
- RT has been marketing IPM products *as* IPM products, and promoting IPM fruits and vegetables, since its inception in 1997. Eco Apples have been better received and better understood than any other IPM product we've tried previously.
- RT has built, over the past 12 years, strong relationships, grounded in trust and reinforced by experience, with its growers. The growers respect Red Tomato's marketing savvy and its unique position among produce brokers of advocating for the

growers in working with its customers. In addition, RT has been working to form its growers into an active network, where growers can share common concerns and learn from one another as well as from marketers and scientists. This provides an ideal platform for an IPM learning community.

5. Objectives and Anticipated Impacts

Priority objectives for 2010:

I. **Identify Northeast scientific resources to support growers** as they move along the IPM continuum toward advanced IPM.

II. **Explore with growers the particulars** and identify which crops that IWG work will initially focus on.

III. **Develop IWG structure, bring on appropriate stakeholders and develop a work plan** for the program.

Impact

With this effort, RT focuses on the Northeastern IPM Center's goal to "develop individual IPM guidelines and certification programs" and build communication networks among stakeholders. This project will help to achieve the IPM National Road Map goal to "*develop user incentives for IPM adoption reflecting the value of IPM to society and reduced risks to users."*
This project will foster science-based pest management that safeguards human health and the environment, while at the same time generating economic benefits for those growers adopting IPM practices. It thus will further the implementation of IPM in the Northeast, and directly addresses the goals of the IPM Roadmap.

Specific impacts include: an increase in the number of acres on which IPM practices will be implemented; changing the use of pesticides on farms, resulting in fewer and/or lower-risk pesticide use; economic benefits to growers; sharing of IPM strategies among growers; increased collaboration among stakeholders involved in the development and implementation of improved IPM strategies; ongoing development of advanced IPM messages and market position within the larger organic/sustainable market; and the wider availability of healthy, reduced-risk local produce to the region's consumers.

6. Approach and Procedures

Adaptive Management in practice: the Working Group's approach is an excellent example of Adaptive Management, or "learning by doing." Using the developed Protocol during a growing season, the results are monitored and evaluated by all stakeholders working together at the end of each season, and the Protocol is then revised, sometimes significantly, for the following season.

Meetings. The leadership team of this group meets by telephone on a monthly basis.
In early spring (usually late March), the entire network gathers in person for an all-day meeting to evaluate the previous season, revise the protocol accordingly, discuss priority issues, and plan the season to come.

It is also our intention to work with the Northeastern IPM Center, and specifically with the Community IPMWG and the Vegetable IPMWG, to collaborate on outreach work done and to

share the outcomes of this project. Susan Futrell, RT's Marketing Director and a key manager of this project, is a past member of the IPM Vegetable Working Group and currently serves on the NE IPM Center Advisory Council.

Methods:

I. **Identify Northeast scientific resources to support growers** as they move along the IPM continuum toward advanced IPM.**:**
   a. Research appropriate scientists (current IWG scientists will be helpful here)
   b. Identify and bring along appropriate current apple IWG members
   c. Meet with other advanced IPM experts in other crop areas; identify which crops experts think are most suitable
   d. Conduct small group and individual meetings by phone

II. **Explore with growers the particulars** and identify which crops IWG will initially focus on.**:**
   a. Identify and bring together RT growers
   b. Discuss with them which crops are recommended as priorities; what are the key pest management challenges with those crops?
   c. Discuss the most effective methods of supporting this initial work: do we want, for example, an expert scientist to present on a relevant pest management topic to the annual Working Group meeting? Would individual advisory sessions be helpful?

III. **Develop IWG structure, bring on appropriate stakeholders and develop a work plan for the program:**
   a. Articulate the overall framework for a Red Tomato Advanced IPM program, including our commitment to certification and marketing. Combine all input; chart the direction for the group; develop the big picture and work plan for 2010-11, including grower education and research priorities.
   b. Conduct the March 2011 annual growers meeting, with the goal to further this work plan and implement this project with several crops in the 2011 season.

Timeline:

April – June 2010

- Research appropriate scientists
- Identify and bring along appropriate current apple IWG members
- Meet with other advanced IPM experts in other crop areas; identify which crops experts think are most suitable
- Conduct small group and individual meetings by phone
- Identify and bring together RT growers
- Discuss with them which crops are recommended as priorities; what are the key pest management challenges with those crops?

July - August 2010

- Red Tomato Brand Advisory Group does research and meets to make marketing recommendations about Eco Peaches and other crops
- Discuss with growers the most effective methods of supporting this initial work

September – November 2010

- Combine all input; chart the direction for the group; develop the big picture and work plan for winter 2010-11, including grower education and research priorities

December 2010- March 2011

- Conduct the March 2011 annual growers meeting, with the goal to implement this project with several crops in the 2011 season
- Convene Working Group meeting for review of 2010 and follow-up planning for 2011
- Red Tomato works with the IPM Institute to develop an initial protocol for peaches and additional identified crops
- Develop an eco-marketing plan for the 2011 growing season

April - June 2011

- Final report written and submitted to the NE IPM Center.

7. Evaluation Plan

Project success will be measured according to the following indicators:

- Appropriate scientists will have been identified to join or consult with the IWG.
- Appropriate current apple IWG members will have been identified to join the IWG.
- IWG members will have met with other advanced IPM experts in other crop areas, and several suitable crops for advanced IPM will have been identified.
- Growers will have been identified, and will have discussed which crops are recommended as priorities, and what are the key pest management challenges with those crops.
- Effective methods of supporting this initial work will have been identified with growers.
- Red Tomato will have developed the work plan for 2010-11, including grower education and research priorities, Brand Advisory Group recommendations, and eco-marketing recommendations.
- The March 2011 annual growers meeting will have furthered the work plan. The project will be ready to implement in the 2011 growing season.
- A Working Group meeting will be convened for review of 2010 and follow-up planning for 2011
- Red Tomato will have worked with the IPM Institute to develop an initial protocol for peaches and additional identified crops.
- An eco-marketing plan will have been developed and ready to implement for the 2011 growing season.

7. Cooperation, Institutional Units and Key Personnel Involved

Red Tomato serves as the lead organization for the project, with responsibility for contacting and recruiting Working Group members, convening meetings, and overseeing the development, printing, and distribution of text materials and the creation of work plans. Growers, and scientists from UMass and Cornell will be independent participants as will be the IPM Institute lead scientist.

Michael Rozyne, (see Attachments - Michael Rozyne, Project Director CV) Red Tomato Managing Director, as Project Director, will oversee all aspects of the program. He will contact

working group members, convene Working Group meetings, and conduct on-going and follow-up conversations with growers and scientists for research and evaluation purposes.

Thomas Green, President of the IPM Institute of North America, will be the coordinator for the development of new IPM protocols.

Susan Futrell, Red Tomato's Marketing Director, will coordinate brand research and development, and oversee related publicity and marketing materials.

Supporting documents:

1. Project Director CV

2. Collaborative Arrangements and Letters of Support
All the members of the Working Group are independent participants. Most working group members participate at their own expense in meetings, as much as possible.

Working Group Members:
The Working Group - The Red Tomato IPM Working Group consists of 26 stakeholders from 6 Northeastern states—MA, NH, VT, CT, NY, PA. Its members include 14 Northeast apple growers, 10 researchers and extension agents, and Tom Green, President of the *IPM Institute of North America*—plus convenor Michael Rozyne and RT consultant Sue Futrell, Communications.

Current Working Group Members:
Michael Rozyne, Red Tomato, MA
Sue Futrell, Red Tomato
John Lyman, Lyman Orchards, Middlefield, CT;
Homer Dunn, Alyson's Orchards, Walpole, NH;
Aaron Clark, Clark Brothers Orchards, Ashfield, MA;
Zeke Goodband, Scott Farm, Dummerston, VT;
Barney Hodges, Sunrise Orchards, Cornwall, VT;
Walt Blackler and Bob Rigdon, Apple Acres, Lafayette, NY;
Calvin Beekman, Beekman Orchards, Boyertown, PA;
Peter Ten Eyck, Indian Ladder Farms, Altamont, NY;
Glenn Schreiter, Saxtons River Orchard, Saxtons River, VT;
Joel and Bill Truncali, Truncali Farms, Marlboro, NY
Elizabeth Ryan, Breezy Hill Orchard, NY
Russell Allen, Connecticut Valley Orchard, VT;
Karl and Betsy Schlegel, K. Schlegel Fruit Farm, Dalmatia, PA
Richard Bonanno, PhD, Pleasant Valley Garden, Methuen, MA;
Jon Clements, Extension tree fruit specialist, UMass, Amherst, MA;
Arthur Tuttle, MS, Extension IPM field leader, plant pathology, UMass, Amherst, MA;
William Coli, PhD, Extension specialist, UMass, Amherst, MA;
Daniel R. Cooley, Associate Professor of Plant Pathology, UMass, Amherst, MA;
Juliet Carroll, PhD, Fruit IPM Coordinator, NYSIPM Program, Cornell University, Ithaca, NY;

Thomas A. Green, PhD, CCA, TSP, IPM Institute of North America, Madison, WI;
Harvey Reissig, Cornell University, Ithaca, NY;
Art Agnello, NYSAES, Cornell University, Ithaca, NY;
Rob Koch, crop consultant, Apple Leaf, Kingston, NY;
Greg Krawczyk, Extension Tree Fruit Entomologist, Penn State University, Biglerville, PA

Letters of Support:

a. Jim Ward
b. Steve Groff
c. Donny Dzen
d. Rich Bonanno
e. Dan Cooley
f. Ruth Hazzard
g. Lorraine Los (UConn)
h. Tom Green
i. Bruce Wilkins
j. John Rogers