2008 PROGRAM WORK TEAM ANNUAL REPORT

Organic Production and Marketing PWT

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The Organic Production and Marketing PWT was established in 1997, with the mission to foster and increase meaningful applied and basic research, teaching, and extension programs in all aspects of organic agriculture for New York State, by: 1) Engaging Cornell research and extension staff with farmers from all agricultural sectors; 2) Providing a forum for discussion and action; 3) Increasing communication and productive collaboration; 4) Advocating and promoting efforts in organic agriculture to CALS and CU administration; 5) Developing new and current resources (human, financial, physical) to strengthen these relationships. The PWT meets annually to communicate Cornell and stakeholder activities, identify and prioritize research needs, and form research partnerships. More details on the PWT and its members is available at the website: www.organic.cornell.edu.

In 2007 and 2008, the Organic PWT met by commodity. This strategy was suggested by a farmer at the 2006 meeting, to allow for more in-depth discussion on important topics. The Fruit and Vegetable group met separately from the Dairy, Field Crops, Livestock group. Each meeting included interested farmers, faculty, CCE educators and nonprofits representatives. The Dairy team met in conjunction with New York Certified Organic (NYCO), an organic grain and dairy farmer organization in Central NY. Both PWT groups used video conferencing to link to four other locations in NYS, to reduce travel time and increase participation of farmers and other stakeholders in the PWT meetings.

CU and CCE are becoming recognized nationally as prominent players in research and education in organic agriculture. The Organic PWT prepares a biannual summary of these efforts for the PWT members and others interested in this sector. This summary has been shared widely, to help promote and advocate for CU and CCE organic efforts. In 2008, an online survey was used to collect information on organic activities from Cornell faculty, staff and students, and CCE educators. Over 65 projects and programs were reported. Summaries of these projects have been published in the 2008 Cornell Organic Research and Extension Summary (available online at organic.cornell.edu). Included in this summary are projects in the following areas: Community Education, Dairy, Field Crops, Forest Management, Fruit Production, and Vegetable production. Below are some abbreviated descriptions from this year's report.

*Education for Veterinarians, Extension Agents, and other Professionals in Complementary Treatments and Preventive Management for Organic Livestock Farms in Northern NY***.** The goal of this project is to broaden the knowledge and understanding of holistic approaches to animal health specific to the needs and requirements of organic livestock producers. The target audience is veterinarians, extension agents and other resource professionals working in the field assisting organic and transitioning livestock producers. Few veterinarians have been trained in organic certified animal care. This project will train NNY farm advisors to be more proactive in the care of organic animals (submitted by Anita Deming, Executive Director, CCE Essex Co.)

Organic Food and Agriculture, AGSCI/CSS/HORT 3800. This course acquaints Cornell undergraduate and graduate students with organic farming strategies and methods, issues in the emerging organic market, organic dairy management, issues of scale, local food systems, social issues and social standards in organic, including migrant labor, and international organic agriculture (submitted by Steven Vanek, graduate student, Horticulture).

Ecological Orchard Management. This course involves the science and techniques of tree-fruit production, emphasizing the skills, perspectives, and conceptual knowledge necessary to be successful

orchard managers, tree-fruit researchers, extension workers, horticulture teachers or crop consultants. The approach integrates botany, plant physiology, entomology, plant pathology, soil science and ecology in a holistic system. Alternative systems of fruit growing such as organic, IFP (Integrated Fruit Production), biodynamic, and mainstream are considered, compared and critiqued (submitted by Ian Merwin, Professor, Horticulture).

The Organic Dairy Initiative The Initiative, funded by the NY Farm Viability Institute, is wrapping up projects in its original two years of funding, and received funding in 2007 to continue for another two years. Part of this effort includes the **Organic Dairy Task Force.** This group consists of farmers, certifiers, educators, and organic dairy processors. Over three years, the Task Force has developed a barrier and opportunity document, designed consumer education pieces, created opportunity for all sectors of the market to communicate their particular challenges, and addressed Federal Dairy Order issues that impede organic dairy growth. The Organic Dairy Initiative was involved with several meetings in the past year. Many involved partnership with county based extension programs. In addition, the effort released a resource CD for Farmers, Extension and Agri-Service providers, edited by Fay Benson, Project Manager. The CD, titled "ORGANIC CROPS FOR ORGANIC DAIRIES" created this resource as a response to the critical shortage of organic grain available for organic livestock production. To date 3 of the 4 organic processors have purchased 400 copies of the CD to pass out to their farmers. In addition 100 copies have been given out farmers at meetings this past winter. All of the resources are available on the NY Organic Dairy Initiative's web site.

Understanding Nitrogen Dynamics on Organic Grain Farms to Increase Nutrient Use Efficiency. As part of a larger study of nitrogen management on organic grain farms, we are studying the effects of soil fertility on legume nitrogen fixation and weed populations. Cover crop handbooks give a ballpark estimate of how much nitrogen different varieties will fix, but nitrogen fixation can be extremely variable. By combining soil fertility analysis with nitrogen fixation measurements, we are working to develop some basic guidelines to help growers estimate nitrogen fixation of different legumes (submitted by Laurie Drinkwater, Assoc. Professor, Horticulture).

Evaluating Apple Fungicides That Might Work in Organic Apple Production Systems. Fungicides either approved for organic production or for which organic approval was anticipated were evaluated in replicated field trials to determine their effectiveness for controlling apple diseases such as apple scab, cedar apple rust, quince rust, black rot and other summer diseases (submitted by David Rosenberger, Hudson Valley Lab).

Guidelines for Organic Production of Four Processing Vegetable Crops. In response to interest from a New York-based organic foods processor in procuring raw product from New York farmers, we are developing guidelines for organic production of four processing vegetable crops: snap beans, peas, carrots, and cucurbits. The process has involved a multidisciplinary team of researchers, extension staff, and farmers each contributing in their particular area of expertise, and a team of writer/editors to compile the information in a user-friendly form. The format of the organic guidelines is based on the Cornell Guidelines for conventional production of these crops, with an emphasis on building soil, health and nutrient release capacity, cultural practices as the basis of a pest management strategy, along with information on approved pesticide products approved for organic production and labeled for the crop (submitted by Abby Seaman, NY IPM program).

Organic Fertility Recommendations. Research-based fertility recommendations for organically approved fertilizers and soil amendments to build soil fertility levels are very limited. In organic production systems, crop responses to fertility amendments have been difficult to predict, both because organic amendments behave differently from mineral fertilizer, and because nutrients from fertilizer cycle

differently in organically managed soils (submitted by Thomas Bjorkman, Horticultural Sciences, NYSAES Geneva).

Mastitis Control Under Organic Rules. The program provided organic dairy producers and future organic dairy producers the opportunity to learn first hand about controlling mastitis under the organic rules currently in place. Participants learned about the common mastitis organisms and how to manage and control them. They also learned about somatic cell counts and bacteria counts. A local organic dairy producer who has been successful in controlling mastitis shared her experiences and told of the practices she uses to keep mastitis problems at bay. Attendees also learned of recommendations on how to successfully transition toward organic production with a minimum of problems. How to treat mastitis cases with an organic herd was also covered. And lastly, the kinds of services provided by Quality Milk Production Services were reviewed (submitted by David R. Balbian, CCE Fulton Co.)

These represent just a few of the projects in organic agriculture at Cornell. All of these projects illustrate the excitement for organic agriculture the PWT has been able to foster and typifies the strong sense of collaboration and camaraderie among the PWT members. We plan to continue our efforts to support long-term sustainability and profitability of organic farmers in NYS by building on the new knowledge and the relationships we have established.