

*February 28, 1999*

## Row by Row at the NYS Vegetable Conference

by Linda McCandless



Members of the NYS Vegetable Conference Planning Committee are:  
(front row, l-r) Carol MacNeil, CCE; Jean Warholc, NYS Veg.  
Growers Assoc.; Chuck Bornt, CCE; Anu Ranarajan, Fruit & Veg.  
Science, Ithaca; Abby Seaman, IPM; (back row, l-r) Mike Orfanedes,  
CCE; Ted Blomgren, CCE; Dale Young, Stokes Seed; John  
Mishanec, IPM; Steve Reiners, Hort. Sci., Geneva; Lee Stivers, CCE;  
Brian Caldwell, CCE; Laura Pederson, CCE; Jan van der Heide,  
CCE.

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SYRACUSE, NY: Attendance for the annual 1999 New York State Vegetable Conference and Trade Show, Feb. 9-11, was right on target, averaging better than 500 people on the first two days and more than 400 on the last. Of course, the weather helped. Organizers say they might have done even better if the weather had been a little cooler and rainier. "When growers see sunny days and 55 degrees, they begin to feel guilty about sitting indoors at a meeting," said Stephen Reiners, who is a member of the Conference Planning Committee.

Every year organizers try to include new sessions and topics. This is the third year herbs were included, for instance, and, this year, the focus was on the medicinal. "We had about 50 to 60 in that session and about the same amount in Garlic. Asian Vegetables had about 70

attendees," said Reiners. "Those are pretty good numbers considering these specialty sessions were held in the smallest meeting room, and were competing with sessions for cabbage, sweet corn, onions, tomatoes and peppers, and processing that had 150 to 200 in attendance." Many growers are looking to diversify and these sessions were designed to let them hear what is and isn't working for other growers.

In addition to insect and disease management, and commodity and cultivation how-to, the conference is an excellent way for those in research and extension to share their concerns with industry and members of the legislature. Daryl Lund, Dean of the College of Agriculture and Life Sciences, Merrill Ewert, Director of Cornell Cooperative Extension (CCE), and Jim Hunter, Director of the NYS Agricultural Experiment Station attended the Social Hour on Wednesday evening. They emphasized the importance of continued support for agricultural research and the positive benefits of such work for New York in the next century.

"We discussed state support for the Geneva Experiment Station and the college with Nancy Lorraine Hoffmann (R-48th District), chair of the Senate Ag Committee, William Magee (D-111th District) chair of the Assembly Ag Committee, and other important industry clientele," said Hunter. "In particular, that funds for the Station were left out of the Governor's proposed budget this year as well as state support for the college in general."

Where will the NYS Vegetable Conference be in 2000? The committee will meet with representatives from the NYS Horticultural Society about the possibility of a joint meeting at the Rochester Convention Center next year. If you missed the conference, here are some of the salient take-home messages from the scientists from Cornell University, Cooperative Extension, and the New York State Agricultural Experiment Station, in Geneva.

#### **FRESH-CUT VEGETABLES**

**"Technologies and Regulations," Olga Padilla-Zakour, Food Venture Center (FVC), Geneva:** Fresh-cut vegetables represent a growing segment of the food industry because of convenience and nutritional value. Consumers perceive issues of safety and quality that need to be addressed by the manufacturer. Current manufacturing practices and regulations are in place to extend shelf life and ensure microbial safety.

**"Microbial Risks," Randy W. Worobo, Food Science & Technology (FST), Geneva:** Fresh cut vegetables have the potential for a higher risk for causing foodborne illness because vegetable crops

are commonly fertilized using animal manures that may contain numerous foodborne pathogens. Since fresh cut vegetables are minimally processed or not processed at all, they do not receive any heat treatment that would normally reduce or eliminate the foodborne pathogens. Using wash water that contains adequate levels of sanitizers and avoiding the use of untreated manure or ensuring a sufficient holding time between manure application and harvesting are good preventive measures to reduce the risk of foodborne illness.

### **ENSURING POST-HARVEST QUALITY**

**"Managing Wash Water: Do's and Don'ts," Randy W. Worobo, FST, Geneva:** Wash waters are a means of reducing both human and plant pathogens on fresh cut vegetables. The incorporation of appropriate levels of sanitizing agents, such as chlorine, ensures that both plant and human microbial pathogens are killed, thus enhancing the life and safety of the produce for consumers.

### **SMALL SCALE FOOD PROCESSING**

**"Options and Resources for the Small Scale Processor," Judy Anderson, Food Venture Center (FVC), Geneva:** Small-scale food manufacturing is in a growth phase, with many options for the safe manufacture of new products and many resources available. The FVC at Geneva receives roughly 350 calls a year from currently operating manufacturers, and, in the last two years, issued 138 letters of approval covering 464 new products.

### **SNAP BEANS**

Snap bean growers in New York, like most producers, are facing the economic situation that occurs when input and other costs of production rise at a much faster rate than crop prices. In addition, quality standards continue to rise as competition increases. Participants at the snap bean session learned how to make better use of pesticides by improvements in sprayer technology, new safer pesticides, and integrating cultural controls for pest management.

**"Snap Bean Commodity Profile," Lee Stivers, CCE, Lake Plains Region:** The FQPA will change the way we farm in the future, if it hasn't already. USDA and EPA has provided a vehicle for producers to tell their story-how they really use pesticides and what their pest management needs are-through Crop Profiles. Participation, either by filling out a survey or reviewing a draft, is a proactive response to FQPA.

**"Root Rot Research: Varieties, cultural practices and seed treatments," George Abawi, Plant Pathology, Geneva:** Cultural practices that reduce soil compaction, increase drainage, and add fresh organic matter (such as sub-soiling, inclusion of cover and rotational crops, compost application) will promote root growth and reduce

damage of root rot pathogens, thus increasing bean yield and profitability. Although, commercial snap bean varieties evaluated were susceptible to root rot pathogens, they did differ in their relative yield under severe root rot pressure suggesting possible variability in their tolerance to root pathogens.

## **SWEET CORN**

**"Effects of Insecticides on European Corn Borer and Its Natural Enemies," Tony Shelton, Entomology, Geneva:** Shelton presented the results of a 1999 field study on the predation of European corn borer egg masses by naturally occurring predators, primarily ladybird beetles. Predators removed up to 95% of the egg masses. When plots were sprayed with one of four insecticides, predation rates dropped from 90% to 15%, depending on the insecticide. Different insecticides had a differential effect on not only European corn borers, but also on the predators, which prey on them. Shelton is creating an "insecticide index of selectivity" which will document the toxicity of the insecticide to its target pest as well as its natural enemy complex so growers can use softer insecticides in an overall IPM program.

## **TOMATOES AND PEPPERS**

Some pointers from the session: With staked tomatoes, highly reflective red plastic mulch can, under certain conditions, increase early season photosynthesis, thereby improving early season yield but not total season yield. With other crops (e.g. pepper, cucumber, melon, squash etc.), early season yields can, under certain circumstances, also be improved, but more likely due to soil warming and not direct stimulation of early season photosynthesis. For these crops, this benefit could probably be realized more economically with IRT (infrared transmitting) plastic mulch rather than red or other colored plastic mulches. (Source: Brent Loy, University of New Hampshire)

**"New Tomato and Pepper Varieties," Michael Orfanedes, CCE, Lake Plains:** If you are looking for an attractive, uniformly medium-large, early tomato, consider Red Rider from Stokes. Based on first year evaluations, the variety appears to thrive even under adverse growing conditions. In the bell pepper arena, two new varieties are noteworthy. PS 334-094 from Petoseed, is an attractive, medium-large, blocky bell with good early yield. Also, check out Brigadier from Rogers. Brigadier is a large, blocky round bell with good early size holding late. Both PS 334-094 and Brigadier are green bells, turning red late. Both varieties are resistant to races 1, 2, and 3 of bacterial leaf spot.

**"Understanding Physiological Disorders of Tomato and Pepper," Chris Wien, Fruit & Veg. Science, Ithaca:** Tomatoes and peppers develop problems when they are exposed to the sometimes extreme

weather conditions such as cool temperatures, heat spells, or drought at various stages of plant growth. Often, these effects are expressed in the fruits, and are called "physiological disorders," that can't be blamed on a specific disease causing agent or insect pest. Solutions to the problems may be by avoiding the situation through irrigation, or protecting the plants with tunnels, or better choice of planting date. Often, too, there are varieties, which are less susceptible to the conditions.

**"Earlier Yields with Bigger Transplants," Stephen Reiners, Horticultural Sciences, Geneva:** Transplant size has a big effect on early and total yield. Basically, if you are interested in greater earlier yields of tomatoes and peppers, use transplants with bigger root balls. It will be worth the additional cost of the transplants. It would not be worth the money, however, to use bigger transplants for later planted fields.

## **VINE CROPS**

**"Fruit Set in Vine Crops," Chris Wien, Fruit & Veg. Science, Ithaca:** The process of setting fruits on cucumbers, melons, squash and pumpkins is affected by the insects that do the pollination, the flowering habits of the vegetable species, and the influence of the weather conditions on the flowering behavior of these crops. On most of these crops, there are separate male and female flowers, so bees or other pollinators are needed to get the pollen from male to female blossoms. Weather conditions can affect the number of male and female flowers that are developed, and the timing of flowering of each type.

**"Growing the Size Pumpkin You Want," Stephen Reiners, Horticultural Sciences, Geneva:** After four years of research on pumpkins, we have a nice story to tell growers. Basically, they can increase fruit number and tons per acre by decreasing the spacing between plants and increasing plant populations. There is a cost for this increase in that the fruit size will be reduced at the higher plant populations. This gives growers the option of controlling the size fruit they need for their own marketing purposes.

## **POTATOES**

**"New Potato Varieties and Clones from Cornell," Robert Plaisted, Plant Breeding, Ithaca:** The potato breeders at Cornell are preparing to release two promising tablestock clones. The first is NY101, a high yielding, pale yellow fleshed clone, similar in color to Yukon Gold. The other is NY103, also high yielding with outstanding appearance, shallow eyes and bright white skin. Official names have not yet been chosen, but will be soon.

**"Late Blight Update, 1999," William E. Fry, Plant Pathology,**

**Ithaca:** Potato and tomato late blight is still a very serious disease in New York and nationally. Integrated management is crucial for success in dealing with the disease. While we are working diligently on creating resistant plants, their contribution to solving the problem is still several years away and there is still significant reliance on fungicides if disease is imminent. Fungicides differ in mode of action and efficacy and these need to be used appropriately.

## **ONIONS**

**"Management of Nematodes on Muck Vegetables," George Abawi, Plant Pathology, Geneva:** Survey results confirmed that the root-knot nematode is the most prevalent and damaging plant-parasitic nematode on onions in New York. The lesion nematode was also recovered from onion root and soil samples, but at a much lower frequency. The application of Vydate was found highly effective in reducing the population of the nematode and its damage to onions. A request for a special local need labelling of Vydate use on onions in New York will be made for short-term management of the nematode. Research on antagonistic crops, host resistance and biological control against this nematode will be emphasized.

Copies of the 182-page "Proceedings of the 1999 NYS Vegetable Conference" are available from the NYS Vegetable Growers Association, PO Box 4256, Ithaca, NY, 14852; 607-539-7648.

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**NOTE TO EDITORS:** If you need a hard copy of the photo, please contact Rob Way at 315-787-2357, or at [rfw2@cornell.edu](mailto:rfw2@cornell.edu)  
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