

# The Vegetable and Small Fruit Gazette

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Horticulture Department  
The Pennsylvania State University

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## Comments from the Editor

Elsa Sánchez, Department of Horticulture

I want to thank Lee Young for her excellent article, Selling to the Senses and look forward to Cheryl Bjornson's article for the October issue. Lee also has excellent color pictures to accompany her article which can be viewed on the internet

(<http://washington.extension.psu.edu/horticulture/Selling%20to%20the%20Senses.pdf>). I also want to thank everyone who contributed articles to this issue and I want to encourage others to join us in upcoming issues. As always, the Vegetable & Small Fruit Gazette Team encourages your feedback so that we can better serve your needs and address your concerns.

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## Schedule for Agent Articles

Elsa Sánchez, Department of Horticulture

September– Lee Young	October– Cheryl Bjornson
November– John Esslinger	December– Andy Muza

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## Selling to the Senses

Lee Young, Penn State Cooperative Extension, Washington County

The marketing season for fresh Pennsylvania-grown fruits and vegetables is in full swing. As a producer, you've worked hard for months to bring a wide variety of produce items to your retail stand or farmers market. But are you doing justice to those fruits and vegetables in the way you merchandise them? Are your displays appealing to your customers? Are you selling to your customers' senses?

Produce displays at local farmers markets and farm stands are very often flat and lifeless, making it too easy for customers to float on by without stopping to make a purchase. But there are some simple steps you can take that will grab those customers by the senses, pull them in to your market stand, and get those greenbacks flowing.

**Selling to the Visual Sense:** People may eat with their mouths, but they shop with their eyes. A key step you can take to improve sales is getting your product off that flat table that sits at hip-bone height and up closer to your customers' eyes. This is most easily accomplished by tiering your display table using boxes or shelves. This creates neat layers, lifts produce items up, and helps to surround the customer in products.

Now that your produce is closer to your customers' eyes, create visual interest by contrasting color, shapes and sizes in your displays. But don't overdo this to the point of disorder. Use contrasts to highlight different items, not to hide them.

**Selling to a Sense of Order:** Neatness and uniformity in displays and in containers conveys to customers a sense of order and grower pride. If you have as many types and colors of display baskets and containers as you have items at your market, the message you may be sending is "any old thing will do", with the containers and the products. Strive for some kind of uniform, overall look to your containers.

**Selling to the Sense of Abundance:** "Pile it high and kiss it good-bye." "It takes twenty-five apples to sell one apple." These old produce industry sayings speak to a basic marketing fact: abundance sells. Unless an item is in high demand and short supply, customers want to pick their items from a whole group, not take the last, picked-over ones. We all like to feel like "smart shoppers"! Bite the bullet and accept the fact that to maximize sales, you will have left-over product at the end of the day.

**Selling to the Sense of Smell:** While food safety concerns can make it difficult for marketers to provide samples of their fresh products for tasting, don't forget about the sense of smell. Point out fragrant flowers to customers, and invite them to sniff. Do you sell herbs? Try crushing fresh basil around your display to release its strong scent. Pesto-lovers will be drawn to your stand, and they might not even know why!

Color photo examples of selling to the senses can be found at:

<http://washington.extension.psu.edu/horticulture/Selling%20to%20the%20Senses.pdf>

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## Food Preservation Resources on the Internet

Luke F. LaBorde, Associate Professor of Food Science, Penn State University

Now that the summer harvest season is in full swing, interest in food preservation techniques is on the rise. It's important to remember though that only those methods for canning, freezing, and drying that have been scientifically evaluated for safety and effectiveness should be used. Many older recipes that have been handed down through the generations cannot guarantee a safe and wholesome final product.

Toward this end, the Penn State Department of Food Science has developed the "PSU Food Preservation Web Site". The site contains an extensive database of procedures for safe canning, freezing, drying, fermenting, smoking, and curing of fruits, vegetables, meats, and dairy products. Currently, there are over 400 references that consumers can use to safely preserve over 100 food items.

Many agricultural producers have expressed interest in supplementing their farm income through commercial sale of jellies and jams, salsas, and other preserved foods. Answers to questions about food safety issues, processing technologies, and state and federal regulations required of all commercial food operations can be found by visiting the web site "Resources for Small Food Processors and Potential Entrepreneurs". More than 90 online resources are categorized into sections such as "Before You Get Started — Making the Decision to be a Food Processor," "Resources for Starting a Business," "Regulations for Food Processors," "General Microbiology and Food Safety," and "Food Processing Technology." You can obtain copies of state and federal regulations, download FDA forms for filing a scheduled process, and obtain information on food testing laboratories, equipment and packaging resources, and direct marketing opportunities.

These web sites and many others on general food safety issues can be accessed from the Penn State Food Safety Web Site at <http://foodsafety.cas.psu.edu>. You may also contact your local Cooperative Extension office or Dr. Luke F. LaBorde in the Department of Food Science at 814-863-2298 or by email at [lf15@psu.edu](mailto:lf15@psu.edu) with questions on food preservation methods.

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## **Pumpkin Disease Management When Fruit Ripen Too Early**

Alan A. MacNab, Department of Plant Pathology, Penn State University

Hot dry summers like we experienced in 2005 frequently result in pumpkins that are ripe long before the peak sales period. Growers ask: "What should I do relative to disease control after most fruit are ripe?" Most are wondering about whether to harvest fruit early and store them somewhere out of the field, and if fruit are not removed from the field, whether the fungicide program needs to be continued.

In my opinion, for the period before the latter part of September, as long as beetle-feeding injury to the fruit can be prevented, less loss will occur to fruit that are left in the field and attached to the vine than will occur to fruit that are harvested early and stored in piles or in windrows. In most cases, each harvesting procedure increases the chance for injury to the fruit rind. And all such injured areas are openings where the black rot fungus can start to attack the fruit. Later in the season, when fall rains persist, there may be an advantage to harvest (gently), cure (80-85°F in a dry area for 10 days), and then store the pumpkins in an area that is as dry as possible.

Although not practical on a large scale, one pre-harvest procedure that would result in a firmer rind over the original "ground-spot" is to gently roll the fruit on its side without severing the fruit from the vine. It is important to leave the fruit attached because the stem quality declines rapidly once it is separated from living vines.

As long as fruit are left in the field, fungicide protection for powdery mildew and black rot is needed. This is necessary to protect the stems from powdery mildew and fruit from black rot, even if much of the foliage is gone. Use of an inexpensive fungicide such as micronized sulfur (at a rate of not more than 4 lb/A) may be useful for powdery mildew if the visible residue is not excessive or can be washed off during preparation for marketing. Some of the best fungicides for control of black rot (gummy stem blight) are Pristine, Bravo+Quadris, Bravo+Amistar, Bravo+Flint, and Bravo+Cabrio; these materials or combinations could be alternated with Bravo+micronized sulfur (the sulfur at 4 lb/A) if powdery mildew control is needed. Once most foliage is gone, there is little reason to continue fungicides for control of the OTHER mildew disease (downy mildew); this is because downy mildew does not affect the fruit.

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## **Weed Management in Vegetables in 2005**

M.D. Orzolek, Penn State University

Since the weather in 2005 was mainly dry and warm to hot in Pennsylvania during the growing season, controlling weeds in most vegetable crops was very difficult. During dry weather, most pre-plant incorporated and pre-emergence herbicide applications do not perform very effectively since they need moisture to go into solution and kill the weeds. In my onion field, there were no weeds after transplanting onions on raised beds with plastic mulch and drip irrigation. However, after 6 weeks, the Canada thistle, lambsquarter and barnyardgrass between rows was quite thick. I applied Goal post-emergent twice but it never really controlled the Canada thistle and lambsquarter populations. Rainfall in late July and early August just aggravated the situation by supplying moisture to the weeds and making it difficult to cultivate (wet soil). Two weeks prior to harvesting the onions, the lambsquarter between the rows was cut with a sickle bar mower but enough of the lambsquarter rosette growth was still left to generate significant weed pressure at harvest.

In a mixed crop (tomato, onion, cantaloupe, eggplant and pepper) nutritional study that I planted on raised beds with plastic mulch and drip irrigation (8 feet spacing between rows), the between row area was weed free for about 4 weeks and then all of a sudden, purslane, galinsoga, lambsquarter, redroot pigweed and smartweed appeared in large populations, especially on the shoulders of the plastic mulch. I thought an application of Roundup with a mop to the weeds growing on the shoulder of the plastic would kill the weeds without injuring the developing crops. It took so long to make the application with the mop technique that I only did half the field; however, the Roundup application did kill all the weeds in about 7 days. In the other half of the field, I used a weed wacker, but since I cut the tops off most of the weeds, they came back with a vengeance. The most reliable way that I found to eliminate the weeds in that field, especially the purslane and galinsoga, was by hand weeding – time consuming, but very effective. I was also able to reduce the amount of weed seed that went back into the field for 2006.

In a pumpkin tillage study, the area that was tilled had significant populations of lambsquarter and velvetleaf (there was no application of Command). In the no-till area, both lambsquarter and especially eastern black nightshade were severe problems even though an application of Dual Magnum had been made prior to transplanting the pumpkins. Either it was too dry for the Dual Magnum to get into solution in the soil or there was so much organic matter on the soil surface that the Dual Magnum never reached the soil but was deposited on the organic matter.

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## **SE Strawberry Expo Info**

Kathy Demchak, Department of Horticulture, Penn State University

Those of you interested in strawberry plasticulture should find the meeting below to be of interest. Here's an abbreviated press release from the North Carolina Strawberry Association:

### **SOUTHEAST STRAWBERRY EXPO IS NOVEMBER 6-8, 2005**

Growers have discovered that if you are interested in the commercial production of strawberries on plastic, the Southeast Strawberry Expo is one of the best places to learn about it. This year's Expo will be held November 6-8, 2005 at the Sheraton Imperial in Research Triangle Park, NC. The conference starts Sunday morning, Nov. 6, with two intensive workshops. One is a "New Grower Strawberry Plasticulture Workshop" for growers considering strawberries, just getting started, or in their first year or two. It will feature the expertise of Ron and Sonny Cottle, of Cottle Farms, one of the leading producers and nursery suppliers in the Southeast, and Dr. Barclay Poling, NC State University's strawberry extension specialist.

The other pre-conference workshop, tentatively titled "Connecting with Customers," will focus on developing practical marketing plans. In the afternoon, a farm tour will visit several successful farms and markets in the Sanford, NC area, finishing with an informal BBQ dinner at one of the farms.

The main conference begins Monday morning, Nov. 7, and runs through noon on Tuesday, Nov. 8. It includes presentations, breakout sessions, and a tradeshow of suppliers to the strawberry industry: plants, containers, irrigation, equipment, and more. Growers will be prominently featured throughout the Strawberry Expo program. Two general sessions showcase "Grower Spotlight" farms: Eric Hunter from Easley, SC, and Donny Fulks of Fredericksburg, VA (Belevedere Farm). The banquet speaker will be Marvin Brown, a Florida grower known for his insight, leadership, and innovation. Growers will also share their experiences in breakout sessions – often informal roundtables – on organic strawberry production, school tours, finding markets for peak production, and "Tools of the Trade". North Carolina's highly respected extension specialists will share their knowledge on Diagnosing Plant Problems, Using Methyl Bromide Alternatives, Developing Healthy Soil, and Achieving Optimum Yields. Other sessions will focus on PR & the Media, Value-added Opportunities, Starting Small in Agritainment, and Diversifying into Crops Before and After Strawberries.

For more information and a registration form, contact the NC Strawberry Association at 1138 Rock Rest Rd., Pittsboro, NC 27312, [ncstrawberry@mindspring.com](mailto:ncstrawberry@mindspring.com), or 919-542-3687 or visit [www.ncstrawberry.com](http://www.ncstrawberry.com). The host hotel, the Sheraton Imperial, is on Interstate-40, only a few minutes away from the Raleigh-Durham airport, and only half an hour from Raleigh or Durham. Reservations may be made by calling 919-941-5050. Mention the "Strawberry Expo" to receive the special conference rate.

p.s. Interested in sustainable and organic agriculture and strawberries? Take in back-to-back conferences: The 20th Annual Sustainable Agriculture Conference of the Carolina Farm Stewardship Association will be held Nov. 4-6 only a few minutes away in downtown Durham. For more information, visit [www.carolinafarmstewards.com](http://www.carolinafarmstewards.com) or call 919-542-2402.

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## Potential Blackberry Rust Problem

K. Demchak, Department of Horticulture, Penn State University

In the past few weeks, articles have appeared in extension publications and the popular media concerning a new blackberry rust disease that has affected plantings of certain cultivars in the Pacific Northwest industry. This disease, causal agent *Phragmidium violaceum*, has the potential to greatly decrease the productivity of infected plantings. The rust fungus was being used as a biocontrol agent for invasive blackberry species in Australia, New Zealand, and Chile, but unfortunately, it didn't stay there. At this point, it is not known whether the cultivars grown in the Eastern U.S. are susceptible or resistant. However, because some of our cultivars have susceptible species in their genealogy, there is some cause for concern. Personnel at the PA Dept. of Agriculture are currently considering steps that may need to be taken concerning tracking this disease, while the USDA is gathering both blackberry and raspberry cultivars for screening. There is considerable work that will be done in various regions of the country concerning many aspects of management and control practices. Hopefully it will take at least a year or two before this disease makes its appearance in PA, and more information will be available on its management by the time we see it here. Symptoms of this rust are quite a bit different from those of other rusts, with wine-colored spots appearing on the tops of leaves. On the underside of the leaves, cream or yellow spores are found directly under these areas, with an area with a violet tinge surrounding the spores, hence the species name. Images and control measures as known or surmised to this point can be found at <http://www.nwipm.info/blkrust-05.htm>. Management measures are similar to those used for other rust diseases (pruning, weeding, removal of infected plants, use of lime sulfur in the spring), and it is

expected that the fungicides used for other rust diseases will have some effectiveness on this one. However, fungicide use will not cure infected plants.

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## Upcoming Meetings

Elsa Sánchez, Department of Horticulture

### Local

October 14-15, 2005. **Passive Solar Greenhouse Workshop**, 1522 Lefever Lane, Spring Grove, PA 17362. Contact: Steve and Carol Moore (717) 225-2489 or sandcmoore@juno.com.

September 29, 2005. **Pumpkin Variety Demonstration**. None-Such Farms, Buckingham, Bucks County. Review 25 pumpkin varieties grown under Southeast PA conditions. Pre-registration required. Contact Scott Guiser, 215-345-3283.

### Regional

September 17 & 18, 2005. 2005 **Small Farm Expo**, GDS Fairgrounds in Newfoundland, Wayne County, PA. The Northeast Small Farm & Rural Living Expo is an educational event sponsored by Penn State, Cornell, and Rutgers along with groups such as PDA, Farm Bureau, RC&D, and local Conservation Districts. Featured at the Small Farm Expo is a slate of educational workshops, machinery and equipment demonstrations, and a trade show. Previous Expo's have drawn 4,000 to 5,000 people during the two day event. Visit [www.smallfarmexpo.org](http://www.smallfarmexpo.org) for more information on the Expo.

January 31 – February 2, 2006. **Mid-Atlantic Fruit and Vegetable Convention**. For more information contact the Pennsylvania Vegetable Growers Association at [pvga@pvga.org](mailto:pvga@pvga.org) or visit <http://www.pvga.org/>.

### National

October 21-23, 2005. 2005 **Women in Sustainable Agriculture Conference: A Celebration of Hope & Opportunity**. The conference will be held at the Sheraton Hotel & Conference Center in Burlington, Vermont. Conference registration fee is \$150 for registrations received by August 19. The fee includes five meals and access to all conference sessions and workshops. Find out more about the conference and/or register on-line at <<http://www.regonline.com/womeninagconference>> or contact the conference organizer at 802-223-2389 x15 to request a paper registration form. Early registration is encouraged.

### International

September 5-9, 2005. Potato 2005. Emmeloord, the Netherlands. Contact: [www.potato2005.com](http://www.potato2005.com).