

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

In this issue are a number of excellent educational activities that occur during October including a Pumpkin Variety Twilight Tour, a Passive Solar Greenhouse Workshop, a field day on Cover Cropping to Improve Soil Quality, Manage Weeds and Improve Production and the 2005 Women in Sustainable Agriculture Conference: A Celebration of Hope & Opportunity. For more information on these events see the "Upcoming Meetings" section beginning on page 10. I look forward to John Esslinger's article for the November issue. 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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Quote for Thought from Pete Ferretti

Two snakes were slithering through a field. One looked at the other with a worried expression.

"Do you think we're poisonous snakes?" he asked.

"I don't know," he answered. "Why?"

"Well," said the other, "I just bit my lip."

-The Lion
July/August 2005

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Schedule for Agent Articles

Elsa Sánchez, Department of Horticulture

November– John Esslinger	December– Andy Muza
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Crop Removal of Nutrients Estimate

Submitted by Mike Orzolek, Penn State University; From "Knott's Handbook for Vegetable Growers – 4th edition

Sometimes crop removal values are used to estimate fertilizer needs by crops. Removal values are obtained by analyzing plants and fruits for nutrient content and then expressing the results on an acre basis. It is risky to relate fertilizer requirements on specific soils to generalized listings of crop removal values. A major problem is that crop removal values are usually derived from analyzing plants grown on fertile soils where much of the nutrient content of the crop is supplied from soil reserves rather than from fertilizer application. Since plants can absorb larger amounts of specific nutrients than they require, crop removal values can overestimate the true crop nutrient requirement of a crop. The crop content (removal) values suggested in the table below are presented for information purposes and are not suggested for use in formulating fertilizer recommendations.

Vegetable	Yield (cwt/A)	Nutrient Absorption (lbs/acre)		
		N	P	K
Broccoli	100 heads	20	2	45
	other	146	8	165
		165	10	210
Brussels Sprouts	160 sprouts	150	20	125
	other	85	9	110
		235	29	235
Carrot	500 roots	80	20	200
	tops	65	5	145
		145	25	345

Celery	1000 tops	170	35	380
	roots	25	15	55
		195	50	435
Honeydew melon	290 fruit	70	8	65
	vines	135	15	95
		205	23	160
Lettuce	350 plants	95	12	170
Muskmelon	225 fruit	95	17	120
	vines	60	8	35
		155	25	155
Onion	400 bulbs	110	20	110
	tops	35	5	45
		145	25	155
Pepper	225 fruit	45	6	50
	plants	95	6	90
		140	12	140
Potato	400 tubers	150	19	200
	vines	60	11	75
		210	30	275
Snap bean	100 beans	120	10	55
	plants	50	6	45
		170	16	100
Spinach	200 plants	100	12	100
Sweet Corn	130 ears	55	8	30
	plants	100	12	75

		155	20	105
Sweet Potato	300 roots	80	16	160
	vines	60	4	40
		140	20	200
Tomato	600 fruits	100	10	180
	vines	80	11	100
		180	21	280

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Pumpkin Variety Twilight Tour

Tom Butzler, Central Region Extension Educator, Penn State Cooperative Extension

Penn State Cooperative Extension transplanted a pumpkin variety trial at the Penn State's Horticulture Research Farm at Rock Springs on June 23rd. We are inviting growers to view the pumpkin varieties during a twilight meeting on October 4, 2005. Pumpkin viewing will start at 5:00 PM with pesticide credit talks starting at 5:30 PM. Dr. Mike Orzolek will be on hand to talk about pumpkin production issues while Craig Cella, a PDA bee inspector, will answer pollination questions and honey bee inquiries. In addition, Dr. Alan MacNab, vegetable plant pathologist, will give an overview of pumpkin diseases in our area and some of the latest control measures. Tom Butzler, horticulture educator, will talk about pesticide spills and the necessary "tools" to have on hand for emergency situations. One core pesticide credit and one category credit has been approved by the Pennsylvania Department of Agriculture.

The twilight meeting will be held at the Horticulture Farm of the Russell Larson Agricultural Research Center, located at Rock Springs on PA Route 45 about 11 miles west of State College between Pine Grove Mills and Spruce Creek. Turn in at Gate H. The Horticulture Farm is just east of the Ag. Progress Days site. For additional information, call Tom Butzler at 570-726-0022.

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Blueberry Web Site from Michigan State

Submitted by Kathy Demchak, Penn State University; Source: Annemiek Schilder, MSUE Plant Pathology, Fruit CAT, Vol. 20, No. 18, September 20, 2005

A comprehensive website <www.blueberries.msu.edu> has been developed that provides information on all aspects of blueberry production and management. The site can be navigated easily through clickable categories that include blueberry production, varieties, diseases, insects, nutritional and other disorders,

weeds, pest management (with links to MSU Fruit Management Guide and pesticide labels), weather (with links to the MSU Agricultural weather network and a national weather website), and related industry and academic links.

The site was developed by a team of blueberry research and extension specialists with funding from the MSU GREEN project and the Michigan Blueberry Growers Association. The website is currently being finalized and will be updated on a regular basis; feedback on content and layout is welcome.

Note from K. Demchak: I checked this site out, and it is a good one... I often "connect" via a dial-up modem, which can be frustratingly slow. However, the information contained on this site is broken down into small segments and is concise, so it's easy to get information without being bored silly during downloading. Take a look, and Happy Navigating!

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North American Berry Conference, January 4-6, 2006

Kathy Demchak, Dept. of Horticulture

Please note that North American Berry Conference is being held more than a month earlier than usual. Because of this, those planning to attend need to register and make other arrangements earlier than in other years. This meeting is being held at the Savannah International Trade and Convention Center in Savannah, GA, and is immediately followed by the SE Regional Fruit and Vegetable Conference January 6-8. Speakers and topics tentatively scheduled for the berry conference are:

- Dr. David Handley, Univ. of Maine (two topics): 1) The Strawberry Plant: What You Need to Know, and 2) Insect ID, Scouting, and Management
- Shannon Mangnuson, Chesterfield Berry Farm, VA: Building Services around Your Crop
- Dr. Carl Sams, Univ. of TN: Biofumigation with Composting for Soil Borne Pests
- William Beckham, AgFirst Farm Credit Bank, SC: Return per Hour Profit (tentative title)
- Bob Gray, Four Corners Farm, VT: Using Alternative Techniques to Meet Market Demands
- Dr. Craig Chandler, Univ. of FL: Choosing Your Cultivar and Growing Method for Profitability
- Dr. Eric Siderman, Maine Organic Farmers and Gardeners Assoc.: Growing Organic
- Jen Arter, Walnut Springs Farm, MD: The ABC's of Getting and Keeping School Tour Business
- Dr. John Duval, Consultant, FL: Drip Irrigation
- Norine Larson, Consultant, MN (two topics): 1) Selecting and Hiring for Good Retention, and 2) Training Employees to Work Together
- Dr. Shahrokh Khanizadeh, Hort. Res. and Devel. Center, Quebec: Strawberry Cultivars and Breeding
- Farmer-to-Farmer Discussion Sessions: 1) Marketing: Ideas and Opportunities, hosted by Anne Geyer and 2) Production: Challenges to Profitability, hosted by Rudy Heeman
- Showcases: Cottle Strawberry Nursery, NC, and Lane Packing Company, GA

Additional details provided by the North American Strawberry Growers Association:

NASGA is emphasizing the importance of registering early for the 2006 conference because of the date change. Registration materials are available on the NASGA website, www.nasga.org.

Wednesday's sessions will offer two concurrent tracks, one on production and one on making your business profitable (topics above). Thursday will feature a tour for attendees of both the Berry Conference and the Regional Fruit and Vegetable Growers Conference. Friday's morning's general sessions will highlight pest management, a local grower and marketing information.

Registration is separate for both conferences. For information on the Southeast Regional Fruit and Vegetable conference, visit their website, <http://www.gfvga.org/>.

NASGA is a multi-country organization of approximately 300 members, primarily small production growers that specialize in pick your own or farm market sales, along with the research community and suppliers that support them. For more information visit their website: www.nasga.org.

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The Organic Way - OMRI List

Elsa Sánchez, Department of Horticulture

This month's article is about the lists developed by the Organic Materials Review Institute (OMRI) and using them in making decisions about which materials and products can be used in organic production. In addition to the OMRI lists, information on the status of materials and/or products can be found in the National List of Approved and Prohibited Substances (www.ams.usda.gov/nop/NationalList/ListHome.html) and through your certifying agency.

OMRI is an organization that determines if materials are in compliance with the National Organic Program (NOP) rule. Manufacturers submit products to OMRI which are reviewed and placed in a Generic Materials List and Brand Name Products List. Lists can be obtained directly from OMRI (contact information appears at the end of this article) or through your certifying agency. Lists are updated quarterly and republished annually. Additional updates are placed on the OMRI web site (www.omri.org) weekly.

In addition to materials, the generic list also contains recommendations from the National Organic Standards Board, a comparison of the generic list with the International Federation of Organic Agriculture Movements (IFOAM) standards, the Organic Foods Production Act of 1990, the NOP rule and a glossary. The brand name list contains products categorized by material, company and product name. The lists can be very useful in identifying products that can be used in organic production. The brand name list can also be used to determine if a particular product is allowable in organic production. However, if a product is not found in the brand name list that only means that it has not been reviewed by OMRI and not necessarily that it cannot be used in organic production.

Materials and products in the lists are given a status of allowed (A), prohibited (P) or restricted (R). Allowed materials have been determined to be compliant with the NOP rule while prohibited materials are not. Restricted means that certain requirements must be met before these products are used. In many cases, in order to use restricted products you must have a documented reason for using them, such as to correct certain nutrient deficiencies. In other cases, a material can be used as long as certain conditions are met. For example, to use mushroom compost it "must be from certified organically grown mushroom production systems or be produced in a manner that prevents contamination with prohibited substances" and "must meet compost requirements" (page 31, Generic Materials List). In all cases, it is best to get approval from your certifying agency before using any product.

The generic and brand name lists are designed to be used together. This is especially useful in the case of restricted materials and products. All generic materials, regardless of status, have a "NOP Rule

Reference". To determine the requirements of using a restricted product in the brand name list refer to the NOP Rule Reference in the generic list. As an example, manganese products have a restricted status (page 7, Brand Name Products List). Using the generic list under "manganese products – restricted" (page 27) it states that "manganous oxide and manganese sulfate may be used to correct documented manganese deficiencies". The part of the NOP rule that applies is also given – 205.601(j)(6).

More information can be found through:

OMRI

Box 11558
Eugene OR 97440
(541) 343-7600 (phone)
(541) 343-8971 (fax)
info@omri.org (e-mail)

www.omri.org

References

OMRI Brand Name Products List. June 2004. Organic Materials Review Institute, Eugene, OR.

OMRI Generic Materials List with National Organic Program Rule and National Organic Standards Board Appendices. June 2004. Organic Materials Review Institute, Eugene, OR.

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Upcoming Meetings

Elsa Sánchez, Department of Horticulture

Local

October 4, 2005. Pumpkin Variety Twilight Tour. Penn State Cooperative Extension transplanted a pumpkin variety trial at the Penn State's Horticulture Research Farm at Rock Springs on June 23rd. Pumpkin viewing will start at 5:00 PM with pesticide credit talks starting at 5:30 PM. The twilight meeting will be held at the Horticulture Farm of the Russell Larson Agricultural Research Center, located at Rock Springs on PA Route 45 about 11 miles west of State College between Pine Grove Mills and Spruce Creek. Turn in at Gate H. The Horticulture Farm is just east of the Ag. Progress Days site. For additional information, call Tom Butzler at 570-726-0022.

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.

Regional

October 7, 2005; 2:00 to 5:00 pm. Cover Cropping to Improve Soil Quality, Manage Weeds and Improve Production, a Penn State-PASA sponsored field day. The field day will take place at Charlestown Cooperative Farm in Chester County. Cost is \$10 for PASA members and \$15 for nonmembers.

This short afternoon tour will begin with an orientation of Charlestown Cooperative Farm in Phoenixville led by operators John and Aimee Good. This mixed eco-grown vegetable, community-supported agriculture (CSA) operation is about 40 acres in size with about 22 acres used for production - 8 of those acres for mixed vegetables, 5 in sweet corn, and one in pumpkins.

Discussion will center on the Goods' use of cover crops, as Penn State researchers will be on hand to discuss how cover crops can contribute to overall weed and soil management efforts on the farm. We will discuss how to interpret soil test results, cover crop cultivation, fall weed identification, and promotion of weed seed eating beetles. To register, please go the PASA homepage at http://www.pasafarming.org/programs/2005_cover_cropping.html.

January 31 – February 2, 2006. Mid-Atlantic Fruit and Vegetable Convention. For more information contact the Pennsylvania Vegetable Growers Association at 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.

January 4-6, 2006. North American Berry Conference. The conference will be held at the Savannah International Trade and Convention Center in Savannah, GA. The conference date has been moved from its normal February date to make it easier for growers, researchers, educators and suppliers to also participate in the Southeast Regional Fruit and Vegetable Growers Conference being held January 6-8, immediately following the Berry Conference. NASGA is emphasizing the importance of registering early for the 2006 conference – because of the date change, and registration materials will be available on the NASGA website, www.nasga.org by mid August.

International

None listed at this time.