



# THE BRAMBLE

VOLUME 22, ISSUE 4  
WINTER, 2007-2008

THE NEWSLETTER OF THE NORTH AMERICAN BRAMBLE GROWERS ASSOCIATION, INC.



## Register Now for Our 2008 Conference

Everything is now in place for our 2008 conference in Hershey, Pennsylvania, on January 29-31, and it looks like it's going to be a great conference. We are meeting in conjunction not only with the North American Strawberry Growers Association, as we have several times in the past, but as part of the Mid-Atlantic Fruit and Vegetable Convention. We have some excellent bramble sessions planned, and there is a wealth of other opportunities at this conference – you may have a very hard time choosing! Most of the time there are eight or nine different tracks running concurrently. The trade show includes 140 exhibitors.

The Mid-Atlantic Convention has been jointly sponsored by the horticultural associations of Pennsylvania, Maryland, and New Jersey for the past 30 years. This year, besides NABGA and NASGA, the National Peach Council will also have its annual meeting here. A total of about 18,000 people are expected to attend the Convention.

### Hotel Reservations

Our host hotel, the Hershey Lodge, is a full-service resort located in Hershey, Pennsylvania. It is one of the state's largest hotel and convention facilities. Make your reservations soon by calling the lodge at 800-437-7439 or 717-533-3311. The conference rate is \$114 /night. For more information about the Lodge, visit [www.hersheypa.com/accommodations/](http://www.hersheypa.com/accommodations/)

### IN THIS ISSUE:

2008 Annual Conference .....	1, 4-6
NABG Research Fund .....	1
Winter Bramble Chores.....	3
Bylaws Revisions .....	7-10
The Berry Doctor .....	11
Research Reports .....	12, 15
Promoting Health Benefits.....	14

## Membership Renewals

Thank you to all members who have already renewed from the notice in the last issue of *The Bramble*. Response has been much higher than last year! Check your address label to see if you still need to renew. If you do, your name will be highlighted. Please use the enclosed Conference Registration form for your renewal – if you are not planning to come to the conference, simply skip that part of the form.

[hershey\\_lodge](http://hershey_lodge). This website also has lots of information about the Hershey area.

## Conference Registration

There is a registration form on page 4 of this newsletter, or you can download and print it from [www.raspberrylblackberry.com](http://www.raspberrylblackberry.com). When you register through NABGA, you can attend *any* of the other educational sessions in other tracks as well, except for workshops or meals that have specific registration of their own. Registration for the "Fundamentals of Bramble Production" workshop on Jan. 29 and our Annual Meeting Luncheon on Jan. 31 are "a la carte" and separate from the basic registration. NABGA's sponsors have underwritten much of the cost of the Luncheon (though you do not need to sign up for the Luncheon to attend the annual meeting.) Be sure to renew your membership on the form if you haven't already. As a courtesy to NASGA, our partners in this berry conference, we are also offering the opportunity to join/renew a NASGA membership or sign up for the strawberry workshop and NABGA luncheon on our form.

See the schedule details of bramble sessions on page 5-6. To get the full picture of what is going on at this conference, go to [www.raspberrylblackberry.com](http://www.raspberrylblackberry.com) and click on the "full conference schedule" link under "News for Growers". If you don't have web access, contact the NABGA office at 919-542-3687 with your questions.✿

## Nurseries and NABGA Members Support NABG Research Foundation

Several nurseries have already agreed to participate in the NABG Nursery Assessment Program which we announced in the last issue of *The Bramble*. These nurseries are:

- Nourse Farm
- Norcal Nursery (Sakuma Bros)
- Jones Farms
- Strawberry Tyme Farms

We expect to hear back from other nurseries as well. Some of these nurseries will start sending assessments for 2007 plant sales, others will start up in 2008 or 2009. This is an exciting development in NABGRF's ability to support and encourage raspberry and blackberry research.

## Individual Donations

Individual NABGA members have also stepped up to support bramble research. Since our last report on donations, the following members have made donations ranging from \$10 to \$200 for the NABG Research Foundation: Richard Barnes, Bob and Coleen Blain, Tom Doyle, Henry and Sandi Rose, Bob Rouse, Ben Strickland, and George Sutton.

*Please consider a year-end donation to the the Research Foundation.* A gift to the Foundation supports research that can benefit many growers. Our funds, even when our grants are small, often leverage additional funding from other sources. And NABGA is committed to sharing results from projects funded through the NABGRF with all members, through the newsletter and annual conference.

The foundation will make its 2008 grants based on funds in hand by early January. Your donation is tax deductible. Add on a donation with your conference registration/membership renewal, or simply send a check made out to NABGRF to NABGRF, 1138 Rock Rest Rdl, Pittsboro, NC 27312. Thank you for your support.✿

## EVENTS

**January 24, 2008 – The NC Commercial Blackberry and Raspberry Growers Association Annual Meeting** at the Cleveland County Cooperative Extension Office, 130 South Post Rd. Shelby, NC. Registration is 4:30-5:00 pm. The program includes talks on “Disease Management in Blackberry,” by Dr. Phil Brannen, Dept. of Plant Pathology, UGA; “Insect Management in Blackberry,” by Dr. Doug Pfeiffer, Dept. of Entomology, VA Tech; and “Future Entomology Research and Extension Program in NC,” by Dr. Hannah Burrack, Dept. of Entomology, NCSU. The meeting also includes a sponsored dinner and membership meeting of the association, which recently became an affiliate member of NABGA. For more information, contact Wayne Mitchem at [Wayne\\_Mitchem@ncsu.edu](mailto:Wayne_Mitchem@ncsu.edu) or 704- 472-0770.

**January 9 – Small Fruit section of Western Orchard Pest & Disease Management Conference**, 1:30-5 pm, Portland Hilton, Downtown. For information and agenda, see [www.nwipm.info/calinfo/pestconf08.pdf](http://www.nwipm.info/calinfo/pestconf08.pdf)

**January 11 – National Berry Crops Initiative Annual Meeting**, at 4:30 p.m. at the Savannah International Trade and Convention Center. NABGA is a member of this coalition of organizations; Ervin Lineberger is our representative on the board. For more information, contact the NABGA office.

### NABG Research Foundation Proposals

The deadline for proposals to the North American Bramble Growers Research Foundation for 2008 funding has been extended to **December 28, 2007**. Proposals will be reviewed by the Research Committee of the Research Foundation online and at the Association’s meeting in Hershey, Pennsylvania, at the end of January 2008. All submissions should be sent in electronically. For more information visit [www.raspberryblackberry.com/Proposals/](http://www.raspberryblackberry.com/Proposals/).

## Briefly Speaking...

**Wind and Water:** We usually have pretty mild winters here in the maritime Northwest. You know, soggy, chilly but nothing compared to what the hardy souls in Minnesota endure. This year has been different. We have had sustained winds over 40 mph, and gusts pushing 60 mph here in the Skagit Valley, and on the coast they’ve clocked winds as high as 125 mph. It’s been hard on greenhouses and on high tunnels with the plastic skins left on. The real problem has been the water, though. Bremerton received over 10 inches of rain in a 24-hour period, and the Chehalis and Cowlitz rivers reached all-time highs, flooding many communities in Southwest Washington. This week, many of the region’s farmers are return-

ing to their farms, attempting to get the mud and silt out of remaining buildings, dealing with downed or lost livestock, and wondering just what to do next. Please give them a place in your thoughts and prayers. It’s probably a good time to make sure our own farms and homes are prepared, too.

**Come to the Annual Conference:** I hope you can make it to the Annual Conference this January in Hershey, PA. There is an outstanding program lined up. Check out the program; I bet you’ll decide that you need to bring someone else along because you will want to be in two talks at once!

*Have a very Merry, Joyful Christmas, and I’ll see you next year in Hershey!*

—Tom Walters

## Growing Opportunities

*By Charlie O’Dell, Crows Nest Farm, Blacksburg, VA*

Have you noted an increasing demand and eagerness to pick berries of all kinds at your farm recently? It seems to us that more and more Americans are getting the message being presented by our government, medical, and nutritional researchers and horticulturists: Berries of all types, the more varied the colors the better, are good for your health! An ancient philosopher wrote, “You are what you eat.” Now, nutritional scientists have proven it so. Also, our public schools now are going toward more healthy meals with less fat, and more fruits and vegetables for our children – great news for our berry, tree fruit, and vegetable growers!

Here at our U-Pick farm featuring blueberries, blackberries, late summer primocane raspberries (red and yellow), and seedless grapes (red, white, and blue fruit colored varieties), we note the high percentage of lean, fit, and trim, health-conscious folks who come to pick. They are eager to sign onto our berry pickers listserv to notify them when our various berries are in season and for instant updates on picking schedules. This direct communication with our customer base has totally replaced our use of expensive newspaper ads and other forms of media advertising, saving us several thousand

**Hear Charlie O’Dell talk about his farm as our “Grower Spotlight” speaker on Thursday, Jan. 31 at the 2008 North American Berry Conference!**

dollars each year in advertising costs!

We growers need to make plans to increase our variety of offerings to meet this rising consumer demand for all types and colors of fresh berries. For example, in this region, I sincerely believe there should be at least one season-long, multiple berry crops grower near every town and city. Look at my home state of Virginia, for example: There are more than 600 towns and cities listed in our official state highways map, some small, some large, but only a pitifully small number of strawberry, blueberry, blackberry, and raspberry farms exist in this state. To me, this makes no sense in this rapidly urbanizing region of increasingly health-conscious (read: berry conscious) citizens. Traditional farming enterprises are time-honored here, but I believe it is high time for more growers to consider these new crop opportunities driven by consumer interest in healthy eating. ✨

*Charlie O’Dell is NABGA Executive Council member for Region 7 and an Emeritus Virginia Tech Extension Horticulturist. Reprinted with permission from American Fruit Grower, November/December 2007.*

## Call for Nominations

Elections for seats on the Executive Council, NABGA's board of directors, will be held at NABGA's annual meeting on January 31, 2008. The seats for four Regional Representatives are open for election (we elect even-numbered seats in even numbered years and odd-numbered seats in odd-numbered years). These regions, and their current representatives, are:

**Region 2** ( Represents CT, NH, MA, ME, RI & VT) Nate Nourse, Nourse Farms, MA

**Region 4** (Represents DE, MD, OH & WV) Guy Moore, Larriland Farm, MD

**Region 6** (Represents AR, IA, IN, IL, KS, MN, MO, ND, OK, SD, NE & WI) Dean Henry, The Berry Patch Farm, IA

**Region 8** (Represents AK, AZ, CA, CO, ID, HA, MT, NM, OR, UT, WA, WY, Mexico, Central & South America), Henry Bierlink, Washington Red Raspberry Commission.

Regional Representatives serve two-year terms and may serve up to two consecutive terms. The Executive Council has one face-to-face meeting a year, at the Annual Conference, and confers by conference call and email throughout the year.

This year's nominating committee consist of Tom Walters, Nate Nourse, and Ervin Lineberger. If you wish to nominate someone – and don't be shy about volunteering by nominating yourself – contact any one of these or the NABGA office. Contact information is on the back page of this newsletter.✱

**The BRAMBLE** is a quarterly publication of the North American Bramble Growers Association (NABGA) and is a benefit of membership in the association. For sample copy, reprint permission, membership information, and advertising rates, contact

NABGA

1138 Rock Rest Road

Pittsboro, NC 27312

Phone: 919-542-3687

Fax: 919-542-4037

Email: nabga@mindspring.com

Web: www.raspberrylblackberry.com

*The Bramble* © NABGA 2007



## Winter Bramble Chores

*This list was developed by Dr. Gina Fernandez, Small*

*Fruit Specialist at NC State University and reviewed by Dr. Marvin Pritts at Cornell. Chores and timing may be somewhat different in your area or for your cropping system.*

### **Plant growth and development**

- Plant is "dormant" and accumulating chilling hours.
- Some differentiation may be occurring in the flower buds.

### **Pruning and trellising**

- Pruning should occur in late winter or early spring. Ice storms can do tremendous damage to plants and trellis systems. If you produce blackberries in areas where ice storms are common, pruning can take place early winter to help avoid severe damage. Wait until early spring to prune floricanes raspberries so winter injured wood can be removed.
- Make trellis repairs after plants have defoliated but before pruning and training.

### **Erect blackberry types**

- prune out the spent floricanes
- Tie canes to wires in a fan shape
- cut lateral branches back to 8-12"
- thin canes to 6-8 canes/hill (4' spacing)

### **Trailing blackberry types**

- prune out spent floricanes
- tie or weave canes to wire so that they do not overlap
- prune side laterals to 12-18"
- thin canes to 6-8/ hill (6-8' spacing)

### **Primocane fruiting raspberries**

- Prune (mow) primocane fruiting types to the ground

### **Floricanes-fruiting raspberries**

- prune out the spent floricanes
- tie canes to wires so they are spread out
- cut any lateral branches back to 6"
- thin canes to 6-8 / hill (3' spacing) or 3-4 canes per linear ft. of row

### **Weed control**

- Many summer weed problems can best be managed in the fall and winter using preemergent herbicides. Determine what weeds have been or could be a problem in your area. Check with local extension agent for cultural or chemical means to control these weeds.
- Establishing new blackberry or black raspberry plants into rows of black plastic or landscape cloth can reduce weed problems significantly. For red raspberries, straw mulch works best since new canes will emerge within the row, and must be able to push through the mulch.

### **Insect and disease scouting**

- Scout fields for insect and disease damage and remove those canes.
- If possible, remove any wild brambles by the roots that are within 600 ft of your planting during the winter, or treat them with Roundup in autumn.
- Apply liquid lime sulfur to dormant canes, just prior to bud break, for disease control.

### **Planting**

- Growers in warmer areas can plant in December. In northern areas, set dormant plants in spring when the soil thaws.
- Take soil tests to determine fertility needs one year before planting. Amend the soil in the fall prior to spring planting.
- Prepare list of cultivars for next year's new plantings. A commercial small fruit nursery list can be found at [www.smallfruit.org](http://www.smallfruit.org) or [www.hort.cornell.edu/nursery](http://www.hort.cornell.edu/nursery).

### **Water management**

- Make repairs to irrigation system (check pumps, lines, etc).
- Plants generally do not need supplemental water in winter.

### **Marketing and miscellaneous**

- Order containers for next season.
- Make contacts for selling fruit next season.
- Attend grower meetings.

*For recommendations for the Pacific Northwest, we encourage you to subscribe to the email "Small Fruit Update" by emailing [info@peerbolt.com](mailto:info@peerbolt.com).*



REGISTRATION & MEMBERSHIP FORM  
 2008 North American  
 Berry Conference  
 Mid-Atlantic Fruit & Vegetable Convention  
 January 29-31, 2008

Name(s) \_\_\_\_\_ Date \_\_\_\_\_  
 Farm/Company/Institution \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip/Postal Code \_\_\_\_\_ Country \_\_\_\_\_  
 Phone #1 \_\_\_\_\_ (  home  work  farm  cell  toll-free )  
 Phone #2 \_\_\_\_\_ (  home  work  farm  cell  toll-free )  
 E-mail \_\_\_\_\_  
 Fax \_\_\_\_\_ Website \_\_\_\_\_

I prefer to receive newsletters  through the mail  by email (pdf file)

**MEMBERSHIP FEES** 1/4 of grower membership fee goes directly to the NABG Research Foundation.  Already renewed/joined for 2008

**Growers:**  Renewal: \$85  SPECIAL RATE for NEW MEMBERS: \$50 ..... \$ \_\_\_\_\_  
 Plus Acreage Charge (all growers): \$5 per acre, maximum charge \$100 ..... \$ \_\_\_\_\_  
**Bramble researchers, extension, students:** \$40 ..... \$ \_\_\_\_\_  
 Additional tax-deductible donation to the NABG Research Foundation ..... \$ \_\_\_\_\_

For convenience, you may join/renew the North American Strawberry Growers Association with this registration ..... \$ \_\_\_\_\_  
 Grower/nursery/supplier:  \$85 new  \$175 returning Research/extension student:  \$55

**2008 North American Berry Conference / Mid-Atlantic Fruit & Vegetable Convention**

Registration in the North American Berry Conference includes the berry educational sessions Jan 30-31, other fruit and vegetable sessions of the Convention, and the trade show. Each registrant also receives a copy of the Proceedings. Registration is required for each person attending. Students and children under 16 receive free registration. New members joining with this form may receive member rates. Bramble Fundamentals and Strawberry Fundamentals workshops and Farm Tour should be pre-registered.

**Names of persons registering** (for nametags):

<b>Conference Registration Fees</b>	Members before Jan 24	Members after Jan 24	Non-Members	Number of Persons	Amount
One-Day Registration	\$45	\$60	\$75	_____	\$ _____
Two- or Three-Day Registration	\$50	\$60	\$120	_____	\$ _____
Farm Tour – Jan 29	\$75	–	\$100	_____	\$ _____
Bramble Fundamentals Workshop – Jan 29	\$25	\$35	\$50	_____	\$ _____
NABGA (Bramble) Luncheon – Jan 31	\$10	\$20	–	_____	\$ _____
Strawberry Fundamentals Workshop – Jan 29	\$25	\$35	\$50	_____	\$ _____
NASGA (Strawberry) Luncheon – Jan 30	\$10	\$20	–	_____	\$ _____
Mid-Atlantic Convention Awards Dinner – Jan 29	\$30	\$30	\$30	_____	\$ _____
<b>TOTAL (MEMBERSHIP &amp; REGISTRATION FEES)</b>					<b>\$ _____</b>

Payment by  Check  MasterCard  Visa All payments in U.S. dollars, please.

Card # \_\_\_\_\_ Expiration Date \_\_\_\_\_

**MAIL** registration form and checks to NABGA, 1138 Rock Rest Rd, Pittsboro, NC 27312. **FAX** registrations to 919-542-4037.

**QUESTIONS?** Call 919-542-3687 or email nabga@mindspring.com.

# THE NORTH AMERICAN BERRY CONFERENCE

JANUARY 29-31, 2008

## TUESDAY, JANUARY 29

**BUS TOUR** 8:00 am – 5:00 pm. The tour will take you through scenic and historic Lancaster and York Counties of Pennsylvania. Stops will include:

• **Penn State's Southeast Research Station** to see a blackberry trial of 13 cultivars.

• **Kegel's Produce** in Lancaster, which supplies fresh and fresh-cut fruits and vegetables to institutions, caterers, and restaurants in Pennsylvania and nearby states. We'll have a brief tour of their plant, including a discussion of food safety protocols at Kegel's and their expectations of local producers in order to ensure a safe food supply. There will be time for a question and answer session/discussion.

• **Brown's Orchards and Farm Market** in Loganville. Besides featuring fresh fruits and vegetables, this farm market also has a bakery, deli bar, greenhouse, coffee shop, ice cream shop, flower shop, and an array of processed products. You'll have time to explore, and we'll have a buffet sandwich lunch while host Stan Brown talks to us about the history of the farm and its growth.

• **Naylor's Wine Cellars**, where we'll tour the winery and have an opportunity to taste some of the fruit wines (both raspberry and strawberry) the winery has developed in addition to grape varieties and blends.

• **Hershey's Chocolate World** – no visit to Hershey, PA is complete without a visit here! Includes a Chocolate Tasting, where you'll have an opportunity to try an assortment of chocolate types, followed by time to browse Chocolate World's Marketplace Shops where you can stock up on chocolate and related confections – just in time for Valentine's Day!

**Logistics:** Lunch, the wine tasting, and the chocolate tasting are included in the price of the tour. We must sell at least a minimum number per bus and will send no more than two buses total. Please preregister. Participants will be able to check in Monday evening or early Tuesday.

*Many thanks to Kathy Demchak of Penn State and Kevin Schooley of NASGA for their work on setting up this tour.*

## WORKSHOP: FUNDAMENTALS OF BRAMBLE PRODUCTION

9:00 am to 12:00 and 1:00-5:00 pm. For novice and prospective growers, and more experienced growers who want a refresher on the basics. Both raspberries and blackberries will be covered, based on the interests of participants. The workshop starts with a joint session with the workshop on "Fundamentals of Strawberry Production," which is occurring concurrently. It will cover fundamentals of marketing, site selection and preparation, etc. and will be led by highly respected bramble specialist Dr. Marvin Pritts of Cornell University.

The strawberry and bramble groups will then separate into different rooms. The rest of the bramble workshop will be jointly led by Dr. Pritts and Cathy Heidenreich, also of Cornell. Topics to be covered include:

- Bramble Varieties and Plant Sources
- Production Methods
- Trellising and Pruning
- Water and Soil Management
- Pest Management
- Postharvest Considerations

Registration is limited to 40 participants to encourage informal discussion and address the specific concerns and questions of participants. All participants will receive a copy of an excellent new resource, *Guide to Farming: What Every Ag Entrepreneur Needs to Know* and a pre-publication version of the new *NRAES Raspberry and Blackberry Production Guide*. Lunch is on your own.

## THANK YOU TO OUR SPONSORS!

The following companies have signed on as of December 12 to be sponsors of NABGA's 2008 Conference:

**Dole Food Company**  
**Nourse Farms**  
**SunnyRidge Farms**

We appreciate their support! Sponsors underwrite some of the cost of our annual meeting luncheon and help cover the costs of organizing and holding the conference.

## ALSO ON TUESDAY:

**In the morning:** Strawberry Fundamentals Workshop; sessions on Vine Crops, Tree Fruit, Snap Beans, Wine Grapes, Fall Ornamentals, Wholesale Marketing, Pesticide Safety, and Sweet Onions; and the Trade Show.

**In the afternoon:** Strawberry Fundamentals continues; sessions on Pumpkins, Tree Fruit, Organic Vegetables, Wine Grapes, High Tunnels, Ethnic Vegetables, and Labor, and the Trade Show. The Research Committee of the NABG Research Foundation meets at 2:00 pm.

**In the evening:** Grower Reception (open to all); Annual Fruit and Vegetable Growers Dinner (ticket required). NABGA Executive Council meets at 7:00 pm.

## WEDNESDAY, JANUARY 30

9:00 – **Grower Showcase** - Susan Lynn, Sand Hill Berries, Mt. Pleasant, PA. The farm raises more than 30 acres of small fruit: red, black, and golden raspberries, blackberries, strawberries, currants, gooseberries, blueberries, and kiwiberries. It also has some terrific marketing, including a new winery, an on-farm store, a cafe, and many value-added products.

10:00 – **What's New and Interesting with Raspberry Varieties** - Dr. Courtney Weber, Cornell Univ.

10:45 – **Blackberry Varieties** - Dr. Gina Fernandez, North Carolina State Univ.

11:15 – **Grower Experiences with Bramble Varieties** (panel) - Chuck Geyer, Westmoreland Berry Farm, VA; Dr. Charlie O'Dell, Crows Nest Farm, VA; Ervin Lineberger, Lineberger's Killdeer Farm, NC; and others.

12:00 – **Lunch on your own** (cash buffet in the trade show) or North American Strawberry Growers Association Lunch and Annual Meeting.

1:30 – **Bramble Production under Tunnels in the U.S.** - Kathy Demchak, Penn State

1:45 – **Ten Acres of High Tunnel Raspberries: A Grower's Perspective** - John Cooper, Strawberry Tyme Farms, Ontario

2:30 – **Industry Show and Tell**

2:45 – **Raspberries Year-Round: Green-**

**house and High Tunnel Experiences-** Shirley Kline, Happy Valley Berry Farm, NJ

3:30 – **Protecting Blackberries for Winter: A No-Tunnel Alternative** - Dr. Fumiomi Takeda, USDA-ARS

4:00 – **Future Directions of Protected Bramble Culture** - Panel of Speakers and Open Discussion

7:00 pm – **“Earth and Sun Film Festival,”** (see box below).

### ALSO ON WEDNESDAY:

**In the morning:** Strawberry sessions on Day Neutral Production; sessions on Direct Marketing, Tree Fruit, Cole Crops, Greenhouse Basics, Sweet Corn, and Potatoes; and the Trade Show.

**In the afternoon:** Strawberry sessions on Weed Management Systems, Soil Health, Strawberry Nutrition, IPM Approaches. Sessions on Direct Marketing, Tree Fruit, Peppers/Eggplant, Leafy Greens, Greenhouse Basics, Peaches, Potatoes, and the Trade Show.

**In the evening:** Ice Cream Social (open to all convention attendees), Cut Flower and Farm Management Software discussion sessions.

### **THURSDAY, JANUARY 31**

9:00 – **Grower Showcase** - Charlie O’Dell, Crows Nest Farms, VA. “Providing Season-Long Berries for Locavores.”

9:45 – **Industry Show and Tell**

10:15 – **Marketing Directions for Raspberries and Blackberries** - Janice Honigsberg, President, Sun Belle, Inc.

11:00 – **Thrips, Japanese Beetles, and Other Bramble Pests** - Dr. Douglas Pfeiffer, Virginia Tech

11:45 – **Obtaining New Pesticide Options for Growers** - Dr. Van Starner, IR-4

12:00– **NABGA Luncheon and Annual Meeting.** Sign up for lunch (the cost has been partially underwritten by NABGA and our sponsors!), or get lunch on your own and rejoin the group for the meeting. Agenda includes election of Executive Council members, proposed new bylaws, and plans for the future. The official bramble portion of the conference ends after the annual meeting. NABGA encourages its members to attend the afternoon sessions on Food Safety.

### ALSO ON THURSDAY:

**In the morning:** Strawberry sessions



*The Hershey Lodge is a large, resort-style hotel and convention center.*

## CONFERENCE SITE AND ACCOMMODATIONS

The conference will be at the **Hershey Lodge and Convention Center** in Hershey, Pennsylvania. The conference room rate is \$114/night. To reserve a room, call the Lodge at 800-437-7439 (800-HERSHEY) or 717-533-3311. Mention “Mid-Atlantic” to get the group rate. Make your reservations soon. For more information on the Lodge, visit [www.hersheypa.com/accommodations/hershey\\_lodge](http://www.hersheypa.com/accommodations/hershey_lodge).

**Travel:** Hershey is located 15 minutes from Harrisburg International Airport (HIA), served by seven major airlines; the Lodge offers shuttle service for a small fee. Baltimore-Washington Airport (BWI) is about 90 minutes away. The Lodge is at West Chocolate Ave. & University Dr.

Hershey is well known as the home of Hershey Chocolate; the smell of chocolate pervades the town and a tour of Chocolate World is practically obligatory. Gettysburg Battlefield is about 45 minutes away, and Lancaster, in the heart of Pennsylvania Dutch country, is about 30 minutes away. Hershey is only a few hours from Washington, DC, Baltimore, New York, and Philadelphia. For more information on local resources, attractions, and accommodations, visit <http://www.hersheypa.com/>. Arrangements for babysitting can be made by calling the Hershey Lodge and asking for Guest Services. There is a cost per hour and per child. Enjoy a short vacation in Chocolatetown, USA!

on Weed Management, Runner Management. Sessions on Food Safety, Peaches, Tree Fruit, Tomatoes, Cut Flowers, and the Trade Show.

**In the afternoon:** Strawberry sessions on Variety Trends, Variety Trials, and New Insecticides. Blueberry sessions on Pruning Do’s and Don’ts, IPM for Upland and Small Acreage Growers, and Insect Pest Management. Sessions on Food Safety, Peaches, Tree Fruit, Tomatoes, Direct Marketing, Cut Flowers, and the Trade Show.

**Conference ends at 3:00 pm.**

**For details of non-bramble sessions visit [www.rasperryblackberry.com](http://www.rasperryblackberry.com) and click on “full conference schedule.”**

### FILM FESTIVAL

NABGA is sponsoring a film screening at 7:00 pm on Wednesday evening, January 30. The “Earth and Sun Film Festival” was organized for NABGA by member farm Sand Hill Berries in Mount Pleasant, PA. This video celebration of farming and the farming life features films by Bill Basquin, Sarah Klein, Sarah Franzen, and Philip Carr. We are looking forward to having some of the filmmakers present to talk about their work. Everyone is invited and there is no cost to attend.

# Executive Council Proposes Bylaws Changes for NABGA

The NABGA Executive Council has developed and approved the following draft bylaws in an effort to bring NABGA's bylaws in line with current practices and its goals for the future. Because there are a lot of changes and reorganization, it is easier to approve a whole new set of bylaws than a series of amendments, though many sections are either unchanged or changed only in small ways. A vote on adopting these new bylaws will be held at NABGA's annual meeting on January 31, 2008. There is still an opportunity for changes to this proposal, so if you have suggestions or comments, especially if you are not attending the annual meeting, contact a member of the Executive Committee. Our current bylaws do not allow an option for absentee voting.

*Commentary below highlights changes and explains some of the thinking behind them. To see the current bylaws, look in the back of your Membership Directory or visit the "Members Only" section of [www.raspberrylblackberry.com](http://www.raspberrylblackberry.com).*

## BY-LAWS OF THE NORTH AMERICAN RASPBERRY AND BLACKBERRY ASSOCIATION

### ARTICLE I. Name and Objectives

Section 1. The name of this organization shall be the "North American Raspberry and Blackberry Association" (NARBA), hereafter referred to as the Association.

*We have discussed changing NABGA's name for several years. People don't know what a "bramble" is, and it makes them think more of thorns than of fruit. Putting "Raspberry and Blackberry" in our name makes us immediately understandable when dealing with the public and policy makers, which goes along with the changes below that add being a unified voice of the bramble industry and promotion to the general public to our objectives.*

Section 2. The Association may use the collective terms "brambles" or "caneberries" to include raspberries, blackberries, and all other cultivated members of the genus *Rubus*.

*Caneberries is added with brambles since that is what they are called on the West Coast.*

Section 3. The objectives of the Association are: 1) to promote the production and marketing of raspberries and blackberries in North America through communication, education, and research, 2) to provide a unified voice to represent the bramble industry, and 3) to promote blackberries and raspberries to the general public.

*These Objectives are about the same as those approved at our 2005 annual meeting and reflect how our efforts have expanded beyond the original bylaws' objective "solely to educate member growers and academic personnel on various aspects of the growth and culture of raspberries, blackberries..."*

### ARTICLE II. Membership

Section 1. There shall be five categories of membership:

a. Grower Members shall be individuals or family or farm units at a single address involved in the production of raspberries and/or blackberries. Grower members shall pay an annual base fee

plus an additional per-acre assessment.

b. Research/Extension Members shall be those not engaged in commercial bramble growing who are students, researchers, extension agents and specialists, and others as designated by the Executive Council.

c. Affiliate Members shall be local, state, or regional organizations whose members have an interest in raspberry and blackberry production, marketing, and/or consumption. These memberships must be individually approved, upon application, by the Executive Council.

d. Industry Members shall be nurseries, processors, marketers, and suppliers to the raspberry and blackberry industry.

e. Honorary Members shall be individuals who, because of service to the Association or the industry or for other reasons determined by the Executive Council, are selected by the Executive Council to be awarded this status. Honorary members pay no membership dues. The membership may be annual, for a period of years, or for life.

Section 2. Each membership shall have one vote in general elections and shall be entitled to publications, discounts, and other benefits of membership as established by the Executive Council.

Section 3. Amounts of annual dues shall be set by the Executive Council of the Association. Dues shall be payable on an annual calendar-year basis. The Executive Secretary shall have discretionary authority to pro-rate or carry over new memberships according to time of application.

*Affiliate, Industry, and Honorary categories are added. The Association began accepting Affiliate organizations as members this year, so this brings the bylaws in line with current practice. The Industry category gives a "home" to suppliers, processors, etc. who before did not fit in any category. A calendar year for the membership year is easier to keep track of and make sense of. We are also changing the fiscal year to a calendar year. (Members joining/renewing between Oct. 1, 2007 and Dec. 31, 2007 will have memberships through Dec. 2008.) Power to set assessments and associated acreage limits now goes to the Executive Council, which already had power to set dues.*

### ARTICLE III. Executive Council

Section 1. The business affairs of the Association shall be managed by an Executive Council (the Council), which shall serve as the Association's board of directors. The Council shall be composed of eight to twelve regional and at-large representatives, the officers of the Association, an executive secretary, and the most recent past president. The make-up of the regions shall be established by the Executive Council.

Section 2. Regional and at-large representatives shall be elected by the voting members of the Association. Nominations for the these positions shall be requested in the newsletter, through a separate mailing, and/or via email or other electronic means in advance of the annual meeting.

Section 3. The term of office of a regional/at-large council member shall be two years and will begin immediately upon election. Those representatives from the odd-numbered regions will be elected in odd-numbered years and those from even-numbered

regions will be elected in even-numbered years.

Section 4. No Executive Council member shall serve more than two consecutive terms, except that a council member elected to the office of either president or vice-president shall be allowed to serve his or her full two-year term in each office, regardless of whether or not he or she has been reelected regional representative or has already completed a second term as a regional representative.

Section 5. The Executive Council shall meet at least once a year, at the same location as the annual meeting of the Association, before or after this meeting. It shall meet at other times as necessary and may choose to meet via conference call or electronic means. Notice of all Council meetings must be delivered to Council members via U.S. mail or electronic means no less than 10 days in advance of the meeting.

Section 6. A special meeting of the Council may be called at any time at the request of 50% of the council members or by petition of 50% of the voting members of the organization. In the case of a petition, the council shall be required to consider the petition in full.

Section 7. A quorum shall be equal to 50% of the Executive Council plus one (rounded to the nearest whole number). Decisions of the Council shall be by majority vote of those present.

Section 8. Between meetings, the Council may delegate certain decisions to the Officers or Committees or hold votes on specific issues via phone, mail, or email at its discretion. A quorum for such phone, mail, or email decisions shall be two-thirds (2/3) of the Council.

Section 9. Any Council member may terminate his/her term of office at any time by written notice to the Association president, with termination effective upon receipt. Any Council member may be removed by a two-thirds vote of the Council. Written notice, including cause, of such removal must be sent to the Council member so removed. The Council may appoint a representative to fill any vacant seat for the remainder of that term in office or until the next annual meeting of the association.

Section 10. Members of the Executive Council shall not receive compensation for their services but may be reimbursed for reasonable expenses incurred in connection with Association business according to policies and procedures established by the Executive Council.

*Sections on the Executive Council and the officers have been split into separate Articles. Changes include explaining how regions will be defined, adding procedures for electronic communication, and defining how Executive Council members may be compensated or reimbursed. Allowing for at-large members and increasing the possible number of regional and at-large members (from 8 to up to 12) gives more flexibility,*

#### ARTICLE IV. Officers

Section 1. Elected officers of the Association shall be a president, a vice-president, and a treasurer. These shall be selected by the Council from among the regional representatives, or from outside of this group, if deemed necessary. The Council members shall elect officers by a simple majority vote of those mem-

bers present at a duly constituted Council meeting.

Section 2. The president shall call and preside over all meetings of the Executive Council, establish committees, and appoint chairpersons and members of committees, as needed, to deal with the organization's affairs. The president and the most recent past-president shall be ex officio members of all such committees.

Section 3. The vice-president shall carry out the duties of the president whenever the president cannot attend council meetings and shall assume the responsibilities of the president should the president be unable to carry them out.

Section 4. The treasurer shall be responsible for the financial affairs of the Association. The Executive Council may choose to transfer some or all of these duties to the executive secretary or hire or contract for other outside financial services.

Section 5. As a general rule, the term of office for each elected officer shall be two years and the vice-president shall succeed the president at the end of his term, with each serving two years. If an office becomes vacant for any reason, the Council shall elect a replacement by a simple majority vote of those members present at a duly constituted council meeting and shall determine at that time the length of term of the replacement officer.

*Wording on succession of officers has been simplified; duties of the treasurer have been defined.*

#### ARTICLE V. Meetings of the Association

Section 1. The Association shall hold an annual meeting each year at a time and place determined by the Executive Council. This meeting shall include reports to the membership, elections for the Executive Council, any changes to the bylaws, and other issues and proposals as presented at the meeting.

Section 2. Special meetings may be held upon the written request of a majority of the Executive Council or upon the written request of at least ten percent (10%) of members.

Section 3. Notice of the annual meeting and special meetings shall be sent to all members no less than 30 days in advance. Notice of any meeting to vote on proposed dissolution of the Association must be submitted to the membership at least 90 days in advance of such meeting. Voting by electronic means, mail or proxy of members not present at the annual meeting may be established by the vote of the Executive Council. Notice of such absentee voting procedures shall be sent to all members no less than 15 days in advance of the meeting.

Section 4. Only members in good standing shall have voting rights. Each membership shall be entitled to one vote; each business, family, and organizational member shall designate one individual as its voting representative. A majority vote of those members present shall be required for any action to be approved. Any vote that repeals an action of the Executive Council, amends the bylaws, or dissolves the Association shall require a two-thirds (2/3) majority of those present.

*Provisions for allowing absentee or proxy voting are added. Notice for meetings to dissolve the organization is lengthened and the process is more fully defined. Voting is defined as "one membership, one vote".*

ARTICLE VI. Duties of the Executive Council

Section 1. The Executive Council shall consider and decide upon all management and fundamental issues of the organization. These duties shall include setting the Association's annual budget and deciding the general goals, projects, and priorities of the Association.

Section 2. The Executive Council shall have the authority to hire or contract with an individual to serve as executive secretary, whose compensation and duties shall be determined by a majority vote of Council members present at a duly constituted meeting of the Executive Council. Should the executive secretary be unable to carry out the responsibilities, the president, with the agreement of six members of the council, shall appoint an acting executive secretary to assume the position until the next meeting of the council. At the discretion of the Council, the executive secretary may also serve as treasurer, or other outside financial services may be hired or contracted.

Section 3. The Executive Council may remove the executive secretary, for cause, from his/her position by a two-thirds (2/3) vote of the full Executive Council.

*Duties of the Executive Council are described more fully; the expectation to hire a treasurer is removed.*

ARTICLE VII. Fiscal Policies

Section 1. The fiscal year and membership year of the Association shall begin January 1 and end December 31. The Treasurer or other delegated officer shall arrange for independent financial

review of the Association's financial records every three years or upon the request of a majority of the Executive Council.

Section 2. The Executive Council shall set membership dues and assessments. No less than 25% of Grower membership dues shall allocated for research, either through the North American Bramble Growers Research Foundation, or other appropriate venue.

Section 3. The treasurer shall collect all dues and other income and pay all debts for the organization. The Executive Council shall establish a dollar limit, below which the executive secretary has discretionary spending authority, without advance approval by the council. Advance approval may take the form of an annual budget, itemizing specifically preapproved areas of expense.

Section 4. The Association shall use its funds only to accomplish the purposes specified in these bylaws. No part of these funds shall accrue or be distributed to the members, Executive Council, officers, staff, or authorized agent of the Association.

*This article now defines the fiscal year as a calendar year. It adds a requirement for outside financial review and specifically states the non-profit requirement that funds be used for purposes of the Association, not to enrich the members, board, or staff.*

ARTICLE VIII. Indemnification

Section 1. The Executive Council, officers, staff, and other authorized agents of the Association are indemnified by the Association against claims for liability arising in connection with their positions in the Association or activities on behalf the

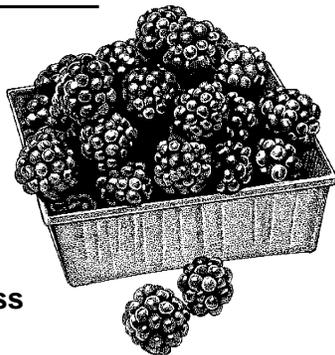
# We Sell Micropropagated, Certified/Virus-Indexed Blackberry Plants

## All Greenhouse Grown

### Varieties

- Apache\* thornless
- Arapaho\* thornless
- Chickasaw\*
- Chester thornless
- Kiowa\*
- Navaho\* thornless
- Ouachita\*
- Triple Crown thornless

\* Patented



## Jones Farms

7094 Honeysuckle Lane, Bailey, NC 27807  
252-235-3248 home 252-399-9844 mobile  
email: jonesfarmsnc@aol.com

# World Famous Doyle's Thornless Blackberry

## Look what you can get from one plant

Totally thornless and does not sucker

Yields 10-20 gallons per plant!

Proven producer since 1975!

Grows from Alaska to Florida

ALL 50 states

Just one Doyle Thornless Blackberry yields more than 30 ordinary plants!

Large, Sweet, Juicy Berries—sooo good!



THOMAS E. DOYLE  
(6/26/1900-1/13/01)

Adapts to patios and small yard — a big plus



\$5.00 at the market or 50¢ from your backyard!

No other black-

berry compares to the Doyle!

Great for commercial growers.

## DOYLE'S THORNLESS BLACKBERRY INC.

1600 Bedford Road • Washington, IN 47501

Tom Doyle 812-254-2654 fax 812-254-2655

tomdoyle@fruitsandberries.com

www.fruitsandberries.com

Association, in accordance with laws of the state in which it is chartered The Executive Council members and officers assume no responsibility or liability for recommendations made by any speaker, author, member, or guest.

*Added as legal protection for liability.*

#### ARTICLE IX. Amendments to the Bylaws and Charter

Section 1. The bylaws and charter of the Association may be amended by a two-thirds (2/3) vote of those present at any regularly scheduled or special meeting of the Association, provided that any such amendment has been considered and recommended previously by a majority of the Executive Council and that notice, specifically calling attention to such amendment, has been mailed at least 15 days in advance to each active voting member.

#### ARTICLE X. Equal Opportunity

1. Membership in the organization is open to all people, regardless of race, color, religion, sex, age, national origin, disability, sexual orientation, or political affiliation.

2. The organization's programs, activities, and employment opportunities are open to all members, regardless of race, color, religion, sex, age, national origin, disability, sexual orientation, or political affiliation.

*"Handicap" replaced by "disability." Sexual orientation added.*

#### ARTICLE XI. Dissolution

Section 1. The Executive Council may recommend to the membership the dissolution of the Association if its purposes can no

longer be sustained. Such a recommendation requires a two-thirds (2/3) vote of the Directors. Notice of such proposed dissolution must be submitted to the membership at least 90 days in advance of the meeting called for the purpose of approving the recommendation to dissolve the Association. A vote to dissolve the Association requires the approval of two-thirds (2/3) of the members voting.

Section 2. Should the organization disband, its assets shall be disbursed by the Executive Council to one or more public universities for the conduct of research on brambles. Grant applications will be solicited from at least five such institutions. From these the council will make final selections of the recipients.

*Longer notice for a meeting to dissolve the organization is reiterated here and a supermajority is required.*

#### ARTICLE XII. Parliamentary Procedures and Interpretation of Bylaws

Section 1. *Robert's Rules of Order Newly Revised* shall be the final authority in all parliamentary matters not specifically addressed in the organization's bylaws.

Section 2. A vote of two-thirds (2/3) of the members of the Executive Council shall interpret the meaning and intent of these Bylaws. When warranted, the Executive Council by majority vote may request a written opinion from legal counsel on the proper interpretation of the Bylaws.

*Section 2 is added to create a procedure for resolving possible differences of opinion on interpretation of the bylaws. \**

**Produce Promotions**

3'x8' BANNERS  
EX-FLAGS  
POSTCARDS  
F/V ROAD SIGNS  
POLY MARKETEERS

Pick Here

26"x20" Marketeers

4-1/4" x 6" Postcards

28"x44" Nylon Flags

FRESH BLUEBERRIES

FRESH RASPBERRIES

FRESH BLACKBERRIES

FRESH STRAWBERRIES

Call 1-888-575-4090 / Fax 1-800-375-2998

Visit our website at: [www.inberry.com](http://www.inberry.com)

2811 U.S. 31, Plymouth, IN 46563 / Webstore: [producepromotions@inberry.com](mailto:producepromotions@inberry.com)

**INDIANA**

**BERRY & PLANT CO.**

**Strawberries / Blackberries / Raspberries  
Blueberries / Grapes / Asparagus  
Packaging Supplies and much more  
for home and commercial use!**

**CALL 1-800-295-2226**

**Indiana Berry & Plant Co.**  
5218 W. 500 S., Huntingburg, IN 47542  
Visit our website at: [www.inberry.com](http://www.inberry.com)

## “The Berry Doctor”

Check out “The Berry Doctor”! This is a very informative weekly web newsletter on the health benefits of berries. When you subscribe, you’ll get a weekly email summarizing the topic of the week with a link to the full message. The messages from “Dr. Paul” are informal and cheerful, but the science is well-supported, with many links if you want to pursue specific topics or words. To subscribe, simply go to

<http://berrydoctor.com>

Archives are at <http://berrydoctor.com/broadcast/2007/Archives.htm>. One recent issue on ORAC values (a measure of antioxidant values of different foods) gave a link to the new USDA database of ORAC values (check it out at [www.ars.usda.gov/Services/docs.htm?docid=15866](http://www.ars.usda.gov/Services/docs.htm?docid=15866)), explained the term, linked to other issues on the subject, and gave a table of ORAC values of common cultivated berries (see box). Lots of good information, especially if you want to promote the healthfulness of your berries to the public.

Here’s an excerpt from an edition of “Fun Facts”:

### **Why do berries have such bright colors?**

The simple answer would be to say colors help preserve the species by two mechanisms:

First, as berries are constantly exposed to sunlight and ultraviolet radiation, pigments produced mainly in the berry skin form an outer shield. The skin pigments absorb potentially damaging solar effects, shielding particularly the seeds which harbor the plant’s regenerative genes.

Also mainly in the skin is where pigments provide antioxidant protection against oxygen radicals formed during photosynthesis. This is the same antioxidant benefit provided to people and animals that have colorful foods like berries in their diets!

[Special note: as leaves are the primary location of photosynthesis in a plant, the leaves usually have the highest density of antioxidant pigments such as chlorophyll and carotenoids. This is partly why eating “leafy green vegetables” is good for us, why tea contains many



*The phytonutrients in black raspberries are being studied by researchers.*

antioxidants (made from herb leaves), and why leaves tend to have the highest antioxidant density in a plant.

Second, colors are pigments which not only may be visually attractive but have properties also of fragrance and taste. These factors may attract bird and animal predators which, by eating the fruit, will disperse seeds in their droppings, propagating the plant.

### **Some berries are processed for their seeds (e.g., grapes, raspberries). What’s so interesting about berry seeds?**

Seeds are the repository of all the regenerative capacity of the plant (embryo and its genes) and contain food sources and protective chemicals like phenolics that will be used and multiplied as the seed germinates and the fruit grows. Grape seeds harbor dense concentrations of the phenolic antioxidant class of proanthocyanidins, the main component of nutraceuticals called “grape seed extract”. Raspberry seeds (and many other berry seeds) can be used to extract oils with valuable cosmetic and skin healing properties. Seeds from many types of plants are highly nutritious for human consumers. Try some from your bulk food store!

### **So we eat the fruit and seeds to get health values from berries. Does the rest of the plant have any useful nutrition?**

Definitely. Some herbal teas made from berry leaves have high contents of antioxidants that are actually more dense in leaves than in other plant components.

Chinese herbal medicine practices often use the stem, bark, and root of berry plants for nutrition in teas, soups, meats, purees and salves. As a general rule,

looking across berry plant components for total density of nutrients and antioxidants together may create this hierarchy (there’s no science done specifically to test for this – I’m speculating): seeds > leaves > skin > stem = roots > pulp (the fruit we like best!)

“The Berry Doctor” is the work of Paul Gross, who has a PhD in physiology from the University of Glasgow, Scotland and was a Research Scholar for the Heart and Stroke Foundations of Ontario and Canada, publishing 85 peer-reviewed journal reports and book chapters over his 25 year career in medical science. He writes to NABGA, “The Berry Doctor’s Journal is free and non-commercial. I believe in education, sharing knowledge, and providing a service to fellow consumers. It is my ‘charitable’ work, if you like, which I started in October 2006 and have been doing weekly since.

“I am a consultant, broker for exotic berry raw materials, and writer presently. I founded a berry-based nutritional company in Vancouver (<http://berrywiseinc.com>) and am still working with new product development.

I also contribute extensively to Wikipedia, including the raspberry page (and several others) where I wrote the nutrients section (<http://en.wikipedia.org/wiki/Raspberry>). I serve on the steering committee for the International Berry Health Association (<http://berryhealth.fst.oregonstate.edu/index.asp>) which recently became part of the National Berry Crops Initiative [of which NABGA is a member]. ❁

### **ORAC Results for Berries Grown and Consumed Domestically in the USA**

Black chokeberry	16,062
Elderberry	14,697
Cranberry	9,584
Black currant	7,960
Cultivated blueberry	6,552
Blackberry	5,347
Red raspberry	4,882
Raisin (grape)	4,188
Strawberry	3,577
Red currant	3,387
Gooseberry	3,277
Grape (raw)	1,260

## High Tunnel Bramble Production

By Eric Hanson (Horticulture), Rufus Isaacs (Entomology) and Annemiek Schilder (Plant Pathology) MSU

High tunnels are relatively inexpensive hoop houses that can be covered with plastic except during the winter. These structures exclude rain and modify temperature, wind speed, and humidity. We have been studying raspberry production under Haygrove high tunnels at the Southwest Michigan Research and Extension Center (SWMREC) in Benton Harbor for three years. Funding was provided by Haygrove Tunnels

(cost-sharing for structures) the Michigan State Horticulture Society Trust Fund, Project GREEN, and SWMREC. The plastic has been placed on the tunnels in late June, 2005, early May, 2006, and mid April, 2007, and removed in early November each year.

Fall-fruiting and summer-fruiting raspberries have performed very well under tunnels. Fall-fruiting varieties (Autumn Britten, Chinook, Caroline, Heritage) fruit on one year-old canes in the late summer and fall. Summer-bearers (Canby, Encore, Heritage, Nova) fruit on two year-old canes in July. Fall-fruiting types can be pruned to produce in the summer and fall. The summer-fruiting variety Nova produces a small additional crop in the late fall.

Summer and fall fruiting raspberries in tunnels began fruiting a few days earlier than field plants, and continue a little later as well. Nova was the highest yielding summer-bearer in the tunnels and field, whereas Caroline has been highest producing fall-bearer. Yields have been two to three

times higher in tunnels than in the field. Overall berry size has been 20-40 % higher in the tunnels than in the field. Overall, tunnel berries also have had a fraction of the rot seen in the field (although no fungicides have been applied). Fall-fruiting variety evaluation will conclude in 2007. Summer-fruiting varieties will be picked

for the last time in 2008.

Heritage and Caroline were most susceptible to potato leafhopper damage, while Chinook had severe feeding damage from Japanese beetle in the tunnel and field. Beetle and leafhopper abundance and damage were dramatically lower under the tunnels than in the field. There was evidence the two-spotted spider mite populations have been building in the tunnels over the first few years, but this was not quantified. Honeybees were much less common inside the tunnels than outside. Bumblebee colonies brought into the tunnel to aid in pollination survived well through the summer heat and provided good pollination of the summer and fall raspberries. They were also observed visiting other crops grown in the same tunnel experiment (tomato, etc.) and were found to roam across the SWMREC farm to other crops such as blueberry when those crops were in bloom. Leaf spot and anthracnose infections were prevalent on field plants, but nearly absent in the tunnel.

Overall, raspberries appear to be an excellent crop for high tunnels. Yields are double or triple those in the field and berry quality is greatly improved. More needs to be learned to optimize production practices, but raspberries clearly can pay for tunnels in relatively little time.

We have also begun studies with tunnel-grown blackberries. Our first emphasis will be on primocane-fruiting blackberries. The two current varieties (Prime-Jan, PrimeJim) and several advanced selections were planted in 2007. ✱

For information, contact Eric Hanson at [hansone@msu.edu](mailto:hansone@msu.edu) or 517-355-5191.

**Table 1. Yield (1000 lb/acre) of summer-fruiting raspberries in the field and tunnel, SWMREC.**

Variety	Tunnel		Field	
	2006	2007	2006	2007
Canby	3	20	1	4
Encore	2	15	1	4
Heritage	1	4	0	2
Nova	4	20	3	10
<b>AVERAGE</b>	<b>3</b>	<b>15</b>	<b>1</b>	<b>5</b>

**Table 2. Yield (1000 lb/acre) of fall-fruiting raspberries in the field and tunnel, SWMREC.**

Variety	Tunnel			Field		
	2005	2006	2007	2005	2006	2007
Autumn Britten	1	15	11	1	5	5
Caroline	3	21	25	1	8	11
Chinook	1	13	13	0	4	3
Heritage, mowed	2	16	22	1	4	11
Heritage, pruned for summer	3	17	19	0	4	9
Nova	0	4	3	0	1	2
<b>AVERAGE</b>	<b>1.7</b>	<b>14.0</b>	<b>15.5</b>	<b>0.5</b>	<b>4.4</b>	<b>6.8</b>

**Table 3. Summer-fruiting raspberry size and appearance and rot incidence after a short storage period, tunnel and field grown plants, SWMREC, (data are means of 2006 and 2007).**

Variety	Tunnel			Field		
	Size (g)	Visual rating	Rot (%)	Size (g)	Visual rating	Rot (%)
Canby	2.4	3.2	0.4	2.1	2.7	2.1
Encore	4.4	3.6	0.1	3.3	2.7	11.0
Heritage	2.1	4.0	0.2	1.7	2.4	3.3
Nova	3.6	4.1	0.3	2.8	3.5	5.4
<b>AVERAGE</b>	<b>3.2</b>	<b>3.7</b>	<b>0.3</b>	<b>2.5</b>	<b>2.8</b>	<b>5.5</b>

**Table 4. Fall raspberry yield, berry size and rot incidence after storage, tunnel and field grown plants, SWMREC, 2006.**

Variety	Tunnel			Field		
	Yield (1000 lb/a)	Size (g)	Rot (%)	Yield (1000 lb/a)	Size (g)	Rot (%)
Autumn Britten	11	2.8	0.6	4	2.3	8.1
Caroline	16	2.6	0.0	6	2.0	2.9
Chinook	10	2.3	1.1	3	1.9	12.6
Heritage - mowed	12	2.3	0.3	4	1.5	6.2
Heritage-pruned for summer	12	2.3	--	3	1.6	--
Nova	3	3.3	0.0	1	2.3	16.8
<b>AVERAGE</b>	<b>10.7</b>	<b>2.6</b>	<b>0.6</b>	<b>3.5</b>	<b>1.9</b>	<b>10.0</b>

## Hoophouse System Extends Bramble Harvest

*Ithaca, NY* — Northeast growers can capture more of the lucrative local market for fresh berries by growing brambles (raspberries and blackberries) in high tunnels, according to researchers at Cornell and Pennsylvania State Universities.

These relatively low-cost, usually unheated, plastic-covered hoophouses can help growers fill late-spring and late-fall gaps in the market. Instead of mid-June, high-tunnel berries can be harvested in May. The field-grown season for brambles usually ends in early October. But growers using high tunnels continue to harvest berries through November.

Benefits of high tunnels include:

- Floricane-fruiting raspberries and blackberries can overwinter in climates where they would otherwise be killed.
- Primocane-fruiting blackberries ripen where the growing season is otherwise too short.
- Berry yields from tunnels can be two to three times greater than field-grown, and the berries can be significantly larger.
- Tunnel-grown berries also have longer shelf life with reduced pesticide inputs.

A new publication, *High Tunnel Raspberries and Blackberries*, spells out in detail how it's done. The 29-page guide is available online at [www.fruit.cornell.edu/Berries](http://www.fruit.cornell.edu/Berries), or you can order a hard copy.

Topics covered include:

- Site selection
- Tunnel types and construction



*Hoophouse raspberries. Photo courtesy of Eric Hanson.*

## Protected Raspberry Culture Will Be Featured at the 2008 NABGA Conference

The afternoon bramble sessions on Wednesday, January 30 will be devoted to "brambles under cover." Don't miss this in-depth experience! Both greenhouse and high tunnel production will be addressed. Here are the sessions:

- Bramble Production under Tunnels in the U.S. - Kathy Demchak, Penn State
- Ten Acres of High Tunnel Raspberries: A Grower's Perspective - John Cooper, Strawberry Tyme Farms, Inc., Ontario
- Raspberries Year-Round: Greenhouse and High Tunnel Experiences - Shirley Kline, Happy Valley Berry Farm, NJ
- Protecting Blackberries for Winter: A No-Tunnel Alternative - Dr. Fumiomi Takeda, USDA-ARS, Kearneysville, WV
- Future Directions of Protected Bramble Culture - Panel of Speakers and Open Discussion

*We hope to have the two publications described below available for purchase.*

- Choosing and establishing plants
- In-ground and container plantings
- Care and management
- Season extension and harvesting
- Budget for in-ground high tunnel raspberries

If coupled with brambles grown in heated greenhouses, Northeast berry growers could produce brambles nearly year-round. However, rising energy costs make greenhouse berries more expensive to grow. (Another publication, *Greenhouse Raspberries*, describes those growing practices: [www.fruit.cornell.edu/Berries/bramblehtml/ghrasp.html](http://www.fruit.cornell.edu/Berries/bramblehtml/ghrasp.html)) These two practices could help shift market supply along the Atlantic sea-

board to local sources instead of berries imported from other regions or hemispheres. ❁

*To order hard copies of these publications, send check (payable to Cornell University) for \$10 for the high tunnel guide or \$9.50 for the greenhouse guide to: Max Welcome, Dept. of Horticulture, 134A Plant Science Bldg., Cornell University, Ithaca NY 14853-5904.*

**Grow Fresh BERRIES!**  
*Strawberries, raspberries, blueberries and more!*

**NOURSE** Farms

*Where the pros go for plans and plants.*  
*Call for free catalog and plasticulture guide.*  
*Ask about our new varieties.*

**413-665-2658**  
[noursefarms.com](http://noursefarms.com)  
41 River Rd., S. Deerfield, MA 01373

## Promoting Human Health Benefits

The Second International Symposium on Human Health Effects of Fruit and Vegetables, held in Houston, TX, on October 9-13, 2007 was intended as a forum “for horticultural scientists, nutritionists, food scientists, biomedical scientists, chemists, biochemists, clinicians, medical professionals, social economists to exchange information and bridge the communication gap between the agricultural sciences, nutrition and health sciences.” The following Promotion Lessons from the Symposium are reprinted from the November 2007 newsletter of the Washington Red Raspberry Commission.

1. The process of developing a “health message” is very long term – several years, and longer if seeking a [FDA-approved] health claim – and requires a long-term strategic and financial commitment.

2. The quality of the science is key – researchers and institutions must be accredited and the protocols acceptable by science peers.

3. Publication of the studies in peer-reviewed journals is essential. Review of current and past research is also essential, to help establish protocols and to benefit

from earlier work.

4. Research and results about the health benefits of phytochemicals is still early stages.

5. The many institutions and universities in heavily agricultural states are vying for research dollars and competing to create centers and reputations for excellence to attract students and funding.

6. Sessions on marketing nutrition information focused on understanding the consumer, analyzing trends, and creating credible scientific information to communicate to consumers, directly as well as through health care professionals and the media.

7. Post-harvest and processing research is becoming ever more important to determine if the nutritional benefits, especially phytochemicals, remain through processing.

8. Creating new varieties and horticultural practices to create and improve nutrition benefits is as important, and as competitive, as nutrition research.

9. An upcoming trend that could have significance for raspberries is the use of foods as cosmeceuticals, especially for skin care. ❀

## INTERNATIONAL

### Blackberries Lead UK Berry Season

British berry sales at supermarkets in the United Kingdom this season have jumped to more than £282 million, up 10.9 per cent on last year, according to industry body British Summer Fruits (BSF).

The sector continued to grow despite a disrupted season due to an early spring and heavy rainfall during the summer months.

The use of polytunnels, which protect 90 per cent of the soft fruit sold through UK supermarkets, saved growers from suffering the same levels of devastation suffered in other sectors.

A total of 59,000 tonnes of UK-grown soft fruit were shifted this season.

Blackberries make up the fastest-growing sub-category, with sales soaring by 44 per cent this year, reaching a value of £6m, and volumes hitting 771t.

The surge in popularity has been put down to the ready availability of sweeter ‘dessert’ varieties, as well as increased consumer awareness about the health benefits of the fruit.

Strawberries maintained a steady growth of 12 per cent, with sales of £216m, and volumes reaching 52,000t.

Raspberries showed an increase of seven per cent, with sales of £60m, and volumes up to 6,200t.

BSF chairman Laurence Olins said: “It has been a very challenging season with record rainfall coupled with months of grey skies, which dampened demand levels. Thankfully, polytunnels saved the harvest and the future of both the industry and our growers. Considering the very wet weather we endured, the sales figures are impressive.

“Some of the worst flooding in recent history made it very hard for growers – most of whom are family businesses – to satisfy the ever-increasing consumer demand and maintain positive financial results for their businesses. This year has truly been a success against difficult conditions.” ❀

*From www.freshinfo.com. Story published: Thu 8 Nov 07 08:01.*



**Plants with Built In Performance!**

**STRAWBERRY & RASPBERRY PLANTS**

DNA Testing Procedures are being introduced to ensure trueness to type  
Tissue Culturing by New Liskeard Lab of all parent stock in the program  
Virus Testing by New Liskeard Lab of parent stock in the program  
Strawberry Tyme minimum crown diameter for 2007 is 25% larger than the industry minimum.

**Also Available: Blackberry Canes, Asparagus Crowns, Rhubarb & Horseradish, Blueberry Bushes**



R.R. #2 Simcoe, ON Canada N3Y 4K1

**Call for a FREE Catalogue**  
Phone: 1-519-426-3099  
Fax: 1-519-426-2573  
www.strawberrytyme.com

**Improved Propagation Program & Improved Grading Standard**

## Cultural Control of Root Rot by Irrigation Management

By Tom Walters, Small Fruit Horticulturist, WSU-Mount Vernon NWREC, Mount Vernon, WA

**Summary:** Drip irrigation tape placement can affect raspberry yields and the spread of Raspberry root rot. At a root rot infected location, ‘Meeker’ plots with tape placed directly above the crowns had more severe root rot symptoms than did plots with tape offset from the crowns. The resistant variety ‘Cascade Bounty’ did not show any disease symptoms, regardless of drip tape placement. At another location with little or no disease pressure, both varieties yielded more fruit when the drip tape was buried and offset than when it was either above the crowns or suspended and offset. Placing drip tape directly above the crowns caused saturated soil conditions near the crowns; these saturated conditions favored multiplication and spread of *Phytophthora fragariae* var *rubi* in laboratory studies.

**Background:** Raspberry root rot in Washington State is often caused by *Phytophthora fragariae* var. *rubi*, a water mold. The spread of water molds is frequently favored by saturated soil conditions, so we are studying the role that irrigation practices play in soil saturation and in the spread of raspberry root rot.

Irrigation practices have large effects on *Phytophthora* disease development in other crops. Drip emitters on the surface and in the row enhanced development of *Phytophthora* root rot of pepper. Subsurface emitters gave better disease control without reducing yields in noninfested plots. The frequency of irrigation has also been shown to affect *Phytophthora* diseases of squash: more frequent irrigations favor more severe disease development. The development and dispersal of *Phytophthora* spores is favored by cycles of soil moisture, as would likely be caused by common irrigation practices.

In red raspberry, cultural practices that affect soil moisture, such as hilling and mulching, also affected *Phytophthora* root rot development. The new WSU

**Table 1.** a) Raspberry root rot symptoms for two varieties grown under three drip irrigation systems, Puyallup, 2007. 1=no symptoms, 5=severely infected. b) Yields (kg/25 foot plot) for two varieties grown under three drip irrigation systems, Mount Vernon, 2007.

Drip tape placement	a) Root rot symptoms, Puyallup		b) Yield (kg per plot), Mount Vernon	
	Meeker	Cascade Bounty	Meeker	Cascade Bounty
Overhead directly above	4.6 a	1.0 a	14.6 a	13.6 a
Overhead, offset	2.8 b	1.0 a	14.3 a	13.6 a
Buried, offset	2.6 b	1.0 a	17.9 b	16.3 b

raspberry varieties ‘Cascade Bounty’ and ‘Cascade Delight’ appear to have a high degree of root rot resistance, but their response to irrigation treatments is unknown.

**Experimental Design:** Raspberry plantings were established Spring 2006 at WSU-Mount Vernon NWREC (low to moderate root rot pressure) and at WSU-Puyallup REC (high root rot pressure). Irrigation treatments include: drip tape 4” below the surface, 18” above the surface directly above the crowns, and two tapes on the surface 6” offset from the crowns. Each treatment was applied in five replicate plots of ‘Cascade Bounty’ and ‘Meeker’ red raspberry. Irrigation maintained soil moisture at near soil capacity at 24” soil depth and to approximately 50% of soil capacity at 12”. The same volume of water was administered to all of these treatments and soil moisture was monitored with Decagon ECH20 sensors at 12” and 24” in two replications. Recording tensiometers were installed in the middle of the row at 6” and at 12” depth.

**Results:** In 2006, the recording tensiometers demonstrated that plots irrigated via drip lines suspended directly above the crown were much wetter at the crown than plots irrigated via offset drip lines were.

**Table 2.** Sporangia and oospores formed by mycelial samples maintained at constant soil matric potential in a Sakgit silt loam

Matric potential (cb)	Sporangia	Oospores
0	1947	3
-1	1297	23
-2.5	789	53
-5	1059	89
-10	463	121
-25	94	260

Symptoms of root rot were noted in Summer 2007 at the Puyallup planting. Each plot was given a disease severity score of 1-5, with 1 being free of symptoms and 5 being severely infected. ‘Meeker’ plots all showed some symptoms, but no symptoms were noted in ‘Cascade Bounty’ plots. Among the ‘Meeker’ plots, those irrigated with a single drip line directly above the crown had significantly more severe symptoms than those irrigated to the side of the crown (Table 1a). Symptoms of root rot were not noted in the Mount Vernon plots. At Mount Vernon, plots irrigated via buried, offset drip tubes had slightly but significantly greater yields than plots irrigated via one or two elevated drip lines (Table 1b). There was no significant difference in the yields of ‘Cascade Bounty’ and ‘Meeker’ plots.

We developed a laboratory system for maintaining samples of *Phytophthora fragariae* in soil at controlled soil matric potentials (soil moisture levels). We found that samples kept at higher moisture levels (comparable to those found near the crown when the drip line is directly overhead) had much higher sporangial production than samples left at moisture levels more typical of those encountered when the drip line is offset (Table 2). Taken with the other results, these data suggest that irrigation directly above the crown keeps the soil near the crown wetter, that this increased moisture causes more rapid multiplication of *Phytophthora fragariae*, and that this proliferation causes the plants to succumb sooner to raspberry root rot. Conversely, in drier soils more oospores (long-term storage structures) were produced. ✱

This article has been edited for space. For complete article, figures, and notes, contact Tom Walters, [twwalters@wsu.edu](mailto:twwalters@wsu.edu).

## NABGA 2007 Officers and Executive Council

**President - Tom Walters**, Northwest Washington Research and Extension Center, 16550 State Rte 536, Mount Vernon, WA 98273, phone 360-848-6124, e-mail twwalters@wsu.edu.

**Vice President - Nate Nourse**. See Region 2 below for contact information.

**Executive Secretary & Treasurer - Debby Wechsler**, 1138 Rock Rest Rd. Pittsboro, NC 27312, phone 919-542-3687, fax 919-542-4037, e-mail nabga@mindspring.com.

**Research Committee Chair - Gina Fernandez**, NCSU Dept. of Horticultural Science, Box 7609, Raleigh, NC 27695, phone 919-513-7416, e-mail Gina.Fernandez@ncsu.edu.

**Bramble Editor-** Debby Wechsler, 1138 Rock Rest Rd. Pittsboro, NC 27312, phone 919-542-3687, fax 919-542-4037, e-mail nabga@mindspring.com.

### Regional Representatives

**Region 1** (all of Canada) **Henry Mutz**, Berryhaven Farm, 320 Mt. Lehman Rd. S., Abbotsford, BC V4X 2L4, phone 604-859-6380, e-mail berryhaven@shaw.ca.

**Region 2** ( Represents CT, NH, MA, ME, RI & VT) **Nate Nourse**, Nourse Farms, 41 River Rd., South Deerfield, MA 01373, phone 413-665-2658, e-mail info@nourse-farms.com.

**Region 3** (Represents MI, NJ, NY, PA, Europe, and South Africa), **Susan Lynn**, Sand Hill Berries, 304 Deer Field Rd. Mt. Pleasant, PA 15666, phone 724-547-9259 e-mail shberries@zoominternet.net.

**Region 4** (Represents DE, MD, OH & WV) **Guy Moore**, 2415 Woodbine Rd., Woodbine, MD 21797, phone 410-489-7034, e-mail guymoore@verizon.net.

**Region 5** (Represents AL, GA, FL, LA, MS & TX). **Stanley Scarborough**, Sunny-Ridge Farm, P. O. Box 3036, Winter Haven, FL, 33885 phone 863-294-8856, e-mail stanley.scarborough@sunnyridge.com.

**Region 6** (Represents AR, IA, IN, IL, KS, MN, MO, ND, OK, SD, NE & WI) **Dean Henry**, The Berry Patch Farm, 62785 280th St., Nevada, IA 50201, phone 515-382-5138, e-mail berry.patch@midiova.net.

**Region 7** (Represents DC, KY, NC, SC, TN & VA) **Charlie O'Dell**, 1859 Brookfield Rd., Blacksburg, VA 24061, phone 540-552-4322, e-mail olecro@agro-k.com.

**Region 8** (Represents AK, AZ, CA, CO, ID, HA, MT, NM, OR, UT, WA, WY, Mexico, Central & South America) **Henry Bierlink**, Washington Red Raspberry Commission, 1796 Front St., Lynden, WA 98264, phone 360-354-8767, e-mail henry@red-raspberry.org.

## 2008 North American Berry Conference

January 29-31, 2008

Hershey Lodge and Convention Center  
in

Hershey, Pennsylvania

NABGA's annual conference,  
in conjunction with the  
North American Strawberry  
Growers Association and  
the Mid-Atlantic Fruit and  
Vegetable Convention

**Register Now!**

*See pages 1, 4-6*

**At-Large Representative: Mark Bolda,**

University of CA Co-op Ext. Santa Cruz,  
1432 Freedom Blvd. , Watsonville, CA  
95076, phone 831-763-8040, e-mail mp-  
bolda@ucdavis.edu.

**NORTH AMERICAN BRAMBLE  
GROWERS ASSOCIATION (NABGA)  
1138 ROCK REST RD.  
PITTSBORO, NC 27312**