



NABG Research Foundation Initiates Nursery Assessment Program

This fall, the North American Bramble Growers Research Foundation is initiating a voluntary Nursery Assessment Program to raise funds for bramble research. Because raspberries and blackberries represent minor crops in all but a few states, and because state and federal dollars for agricultural research are diminishing, there is a great need for the industry to step up and fund research. Raspberry and blackberry nurseries will be asked to make a voluntary contribution of \$.01 for each plant they sell – that’s just \$1.00 for each hundred plants, but if a number of nurseries participate, it can really amount to a significant expansion in funds available for research. The program is modeled on an existing assessment program of the North American Strawberry Growers Foundation.

The NABG Research Foundation is just beginning the process of informing the nurseries about this new program and inviting them to participate. Several NABGA member nurseries have already expressed their support and their intent to contribute. Watch for acknowledgement of this support in future issues of *The*

Bramble and on the website.

Previously, funding for the NABG Research Foundation has come primarily from three sources. The first is a tithe from the membership: 25% of the annual NABGA membership dues are allocated to the Research Foundation. The second source of funds has been contributions from several of the nurseries and larger grower organizations. The third source is individual donations by individual NABGA members to the Research Foundation; the gift can be added onto annual dues or sent as a separate donation. The Foundation is a tax-exempt (501c3) “charitable organization,” and all donations to it are tax deductible.

Background

The North American Bramble Growers Research Foundation, Inc. was founded in 1998. Although closely linked to the North American Bramble Growers Association (NABGA), the NABG Research Foundation is a separate organization whose goal is to provide a mechanism to support bramble research. According to the Bylaws, “the corporation’s specific purpose is to solicit gifts and donations to fund research on bramble production and marketing, which will or may lead to improvements and/or knowledge about

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NABG Research Foundation Request for Proposals

The North American Bramble Growers Research Foundation (NABGRF) Inc. is seeking proposals for bramble research for the year 2008. All bramble proposals will be considered, however preference will be given to proposals related to germplasm development, pest management strategies, marketing, and cultural management to improve yield and quality. Some specific areas of interest for 2008 include primocane blackberry and raspberry breeding, orange rust research, food safety, and marketing.

Funding for individual projects is expected to range from \$1500-\$3000. Last year, six proposals were submitted and four were funded for a total of \$5444. We expect the number of proposals funded and/or level of support to be greater this year with the proposed nursery assessment (see article above). Proposals will be reviewed by the Research Committee of the North American Bramble Growers Research Foundation online and at the Association’s meeting in Hershey Pennsylvania in January 2008. Awards will be sent out approximately 30 days after this meeting. **The deadline for proposals is December 21, 2007.**

All submissions are to be sent in electronically. For more information visit www.raspberryblackberry.com or contact gina_fernandez@ncsu.edu.



2008 Conference Preview

Things are shaping up for our conference January 29-31 in Hershey, PA! Details will be coming to you later this fall, with registration and hotel information. This conference is a cooperation with the North American Strawberry Growers Association and the Mid-Atlantic Fruit and Vegetable Convention. Here are some of the events and topics that are planned:

Tuesday, January 29

- An all-day tour. Stops include the Landisville Research Farm, Brown’s Farm Market, Nissely Winery, Verdelli’s produce packing operation, and of course, Chocolate World. We are, after all, in *Hershey*, Pennsylvania!
- An all-day workshop on Fundamentals of Berry Production. For part of this workshop, strawberry and bramble growers will be together, then they will split into separate groups.

Wednesday, January 30

- “Showcase Farm” presentation featuring Sand Hill Berries of Mt. Pleasant, PA. This farm is a long-time member of NABGA (Susan Lynn is currently on the Executive Council, and Richard Lynn serves on the NABG Research Committee). It has about 20 acres of raspberries including red, black, and golden raspberries, and another 14 of blackberries, strawberries, currants, gooseberries, blue-

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New NABGA Affiliates

This fall, NABGA welcomes its first two affiliate organizations. This affiliates program, announced in the Summer issue of *The Bramble*, encourages other organizations to become members of NABGA. Both organizations benefit from working together; individual members of the affiliate organization are also offered reduced NABGA membership rates.

If you are involved with a local or regional organization that might be interested in becoming an affiliate, contact the NABGA office.

Washington Red Raspberry Commission

The WRRRC was formed in 1976 to support and promote the raspberry industry. We are comprised of 11 grower board members who oversee programs that facilitate cultural and harvesting improve-

ments, and regulate unfair trade practices within the industry.

We establish promotion plans and conduct programs for advertising, sales, promotion, and/or other programs for maintaining present markets and/or creating new or larger markets for raspberries. The Board also provides for research in the production and processing of raspberries.

There are over 40 different suppliers of red raspberry products who make up the Washington Red Raspberry Commission. Each company is committed to growing, harvesting and processing the highest quality berries in the world, and meeting the most stringent quality standards on the planet.

Our approximately 150 growers are based in western Washington and our processors are spread throughout Washington, southern Canada, and northern Oregon.

—Henry Bierlink, WRRRC

North Carolina Commercial Blackberry and Raspberry Growers Association

NABGA has been following the development of this new growers organization; our past-president, Ervin Lineberger, has been instrumental in getting it started. The group had its first formal organizational meeting on September 19 and decided at this same meeting to become an affiliate of NABGA. Currently, the NCCBRGA is made up primarily of commercial blackberry growers in western North Carolina, but it also welcomes growers from neighboring states. Their orientation is towards wholesale marketing rather than local, direct marketing. The group plans to meet monthly through the winter, with programs on topics such as EuroGap certification, and has a five-member board of directors.

Welcome to both groups!

2008 Conference Preview

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berries, and kiwiberries. It also has some terrific marketing, including a brand-new winery, an on-farm store, a cafe, and lots of value-added products.

- Talks on specific bramble topics, including breeding and new cultivars, and an extended session on protected raspberry culture (high tunnels and greenhouses).
- Many other concurrent activities of interest to bramble growers, including direct marketing sessions, a large trade show with over 140 exhibitors, and posters. Strawberry and vegetable sessions will also be running.

- In the evening, a Berry Film Festival, organized by Sand Hill Berries (see box).

Thursday, January 31

- The “Showcase Farm” will feature Charlie O’Dell of Crow’s Nest Farm in Blacksburg, VA. Charlie is already well-known to many outside the region for his magazine articles and his work with colder-climate plasticulture strawberries. Retired as Virginia Tech horticulture specialist, on his farm, he has kept his zeal for eye for research, observation, and experimentation! The farm has eight acres of blueberries, thornless blackberries,

primocane-bearing raspberries, seedless table grapes and tree fruit, marketed through PYO and at a farmers’ market. Charlie is also the Region 7 rep on the NABGA Executive Council.

- Bramble sessions on weed control, pest control, and other topics.
- The NABGA annual meeting (over lunch).
- Concurrent sessions on strawberries, blueberries, food safety, direct marketing, financial management, vegetables, tree crops, and flowers.
- Trade Show and posters.

The Location

The conference will be at the Hershey Lodge and Convention Center. 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.

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, visit <http://www.hersheypa.com/>.

NABGA is seeking sponsors and exhibitors for this meeting; if your company is interested in becoming a sponsor or exhibiting at the trade show, contact the NABGA office.

Sand Hill Berries Film Festival Seeks Submissions

The First Annual Sand Hill Berries Film Festival seeks submissions for a film festival to run at Sand Hill Berries annual Open House event during the last week of October in Mt. Pleasant, PA (45 miles from Pittsburgh). [Films will also be shown at NABGA’s annual conference in January, 2008]

We are looking to highlight films that embrace the art of farming, berries, wine, and/or the earth. All genres welcome. Please send submission form and a DVD or mini-DVD to: Victoria Kereszi/Sand Hill Berries FF, 537 W. 59th Street, New York, NY 10019. Email vkereszi@earthlink.net for submission details.

New Natchez Thornless Blackberry

The University of Arkansas has recently released a new blackberry variety, developed in John Clark's breeding program. Plants should be available next year.

Season of Ripening: Early, near that of Arapaho and occasionally 2-3 days earlier. First ripe date on average is June 3, compared to Ouachita, June 10 and Apache, June 19. It is intended that Natchez be used as a replacement for Arapaho for the early season.

Yield Potential: Recorded yields for Natchez have been twice that of Arapaho in research plantings. Yields are usually comparable to Ouachita and Apache.

Berry Size: Berries are large, on average 8 to 9 g, often comparable in size to Apache and larger than Arapaho, Ouachita, and Navaho. Berry size remains large for the fruiting season.

Quality: Good, rated comparable to Arapaho in flavor but slightly lower than Apache, Navaho, and Ouachita. Soluble solids average about 9.5% in most measurements, slightly lower than Ouachita and Navaho. White drupelets are seldom seen on Natchez.

Post-harvest Handling Potential: Very good, with performance usually exceeding Arapaho and comparable to the other thornless Arkansas cultivars. Fruit firmness was rated slightly lower for Natchez compared to other Arkansas thornless, but storage performance did not show firmness concerns, and had low leak and reddening ratings after one week of refrigerated storage. Natchez is recommended for planting for shipping.

Canes: Erect to semi-erect, thornless. Canes are not as erect as Ouachita or Apache. Although Natchez can be grown in a hedgerow, it is recommended that support wires on either side of the cane row be utilized to maintain an upright canopy as is common in commercial culture.

Disease Resistance: No substantial common diseases have been observed, with only slight anthracnose seen in one year of the observation period. No orange rust observed. Not screened fully for double blossom/rosette resistance although no evidence of this disease has been seen. It is assumed Natchez will



Fall Bramble Chores

This list was developed by Dr. Gina Fernandez, Small

Fruit Specialist at NC State University and reviewed and revised with the assistance of Dr. Marvin Pritts at Cornell. Chores and timing may be somewhat different in your area or for your cropping system.

Plant growth and development

- Primocanes continue to grow but slow down.
- Flower buds start to form in leaf axils on summer-fruiting types.
- Carbohydrates and nutrients in canes begin to move into the roots.
- Primocane leaves senesce late fall.
- Primocane fruiting types begin to flower in late summer/early fall and fruit matures until frost in fall.

Harvest

- Harvest primocane fruiting raspberries.

Pruning and trellising

- Spent floricanes should be removed as soon as possible.
- Optimal time to prune is after the coldest part of the winter is over. However pruning can start in late fall if plantings are large (late winter for smaller plantings).
- Start trellis repairs after plants have defoliated.

Weed management

Many spring and summer weed problems can be best managed with fall- and win-

ter-applied preemergent herbicides. Determine what weeds have been or could be a problem in your area. Check with your state's agricultural chemical manual and local extension agent for the best labeled chemicals to control these weeds.

have resistance to double blossom comparable to other Arkansas thornless.
Root Sprouting: In a single-year evaluation, root sprouting of 94% was observed.

Hardiness: Not well evaluated for winter hardiness due to moderate winter temperatures in recent years. Withstood lows of 7°F at Clarksville with no damage.

Chilling requirement: Not measured but has had good budbreak with 500-600 hours. Anticipated to have similar chilling requirement to Arapaho of 400-500 hours or possibly lower. ❄️

ter-applied preemergent herbicides. Determine what weeds have been or could be a problem in your area. Check with your state's agricultural chemical manual and local extension agent for the best labeled chemicals to control these weeds.

Insect and disease scouting

- Continue scouting for insects and diseases and treat with pesticides if necessary (follow recommendations in your state).
- Remove damaged canes from field as soon as possible to lessen the impact of the pest.

Planting

- Growers in southern areas can plant in the fall.
- In cooler areas, prepare list of cultivars for next spring's new plantings. Find a commercial small fruit nursery list at www.smallfruits.org or www.hort.cornell.edu/nursery.

Nutrient management

- Take soil tests to determine fertility needs for new spring plantings.
- Non-nitrogenous fertilizers are best applied in the fall to established plantings.
- If soil is bare, plant an overwintering cover crop (e.g. rye) to build organic matter and slow soil erosion.

Marketing and miscellaneous

- Order containers for next season.
- Make contacts for selling fruit next season.
- Plan on attending NABGA's annual meeting in Hershey, PA in late January. (See page 1-2)

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

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Berries in the News

Blackberries in the *NY Times*

On July 25, the *New York Times* published "At Last, Sweet Blackberries Stay the Course" by David Karp, a California-based writer who has written about brambles before. He interviewed a number of NABGA members for the article.

The article says supermarket blackberries tended to be tart and bitter, compared with wild blackberries, but says that lately, "blackberries have joined strawberries, raspberries and blueberries as snackable fruits available in groceries year-round, because growers have been planting varieties sweet enough to eat plain even when picked early to withstand shipping cross-country."

It reports that annual sales of fresh blackberries have tripled in the last five years, to about 60 million pounds. "Sales could grow further as advances in breeding open more areas to cultivation, extend the season and make available exquisite varieties from the West Coast."

Some of this growth is ascribed to growth in the Southeast, where marketer (and NABGA member) SunnyRidge

Farm concentrates on selling the sweeter Arkansas-bred varieties, grown on farm in Georgia, Arkansas and North Carolina. Driscoll also has developed improved varieties for its California growers.

Karp notes that Mexican growers produce blackberries from October to May, using chemical defoliant and growth regulators to simulate the seasons of higher latitudes. "Mexico didn't even grow blackberries commercially before 1990. Now, after the United States and Serbia, it's the world's third largest producer, mostly of the recently adopted Tupy variety, which is sweet but can leave a bitter aftertaste."

He awards his best-flavor award to West Coast varieties such as Marion and Boysen, sold fresh locally on the West Coast, but too delicate to ship. An interesting fact from the article: "Most of the nation's Marions are grown south of Portland, Oregon, where a majority of the growers are members of the Russian Orthodox Old Believers sect, who settled in the area starting in the 1960s. The harvest, in July, is mechanized and nocturnal... 'The berries come off easier

at night, and hold up better, too.'"

Karp comments that work with primocane selections [the NABG Research Foundation supports this] may develop varieties that allow more successful blackberry production in the Northeast, where winter cold often damages the canes of better varieties. Oregon breeder Chad Finn is also working to produce new varieties with flavor as good as Marion but firm enough to ship. ✱

You can see the full article on the web at www.nytimes.com/2007/07/25/dining/25blac.html. We thank David Karp for his continuing interest in the berry industry. He is working on a book on fruit, to be published by WW Norton.

Berry Health Research

The entire June 2007 issue of the journal *Molecular Nutrition and Food Research* was recently is dedicated to berries. The editorial introducing the issue notes, "Several papers in this special edition provide evidence from *in vitro* studies that indicate that several anthocyanins found in berries have a range of potentially anti-cancer and anti-heart disease properties including antioxidant activity,



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amelioration of DNA damage, and anti-inflammatory responses. If such effects also occur *in vivo*, berries may have a particularly important putative role in the prevention of chronic diseases. However, any health benefit of anthocyanins depends on their bioavailability. Consequently, the important and contentious issue of the degree to which they are absorbed from the diet and subsequently metabolized are also discussed in several papers in this special edition.

“...Increasing berry intake in the population requires coordination of many disparate interests such as growers, food processors, and health promotion agencies. An example of such a successful strategy is the Finnish approach whereby berry consumption has markedly increased in response to diet and lifestyle initiatives. Similar initiatives in other countries, such as the Scottish “Berry Project” (www.berryscotland.com/) are being developed in order to increase the production, sales, and consumption of soft fruits as part of the attempt to facilitate the reduction of chronic diet-related disease.

The papers themselves are very technical, but access may be purchased at <http://www3.interscience.wiley.com/cgi-bin/jhome/109582333>. The issue is Volume 51, Issue 6. ❁

Botrytis Gray Mold Control in Fall Raspberries

By Annemiek Schilder, Dept. of Plant Pathology, Michigan State University

Gray mold, caused by the fungus *Botrytis cinerea*, is one of the most important diseases affecting fall raspberries. Fall raspberries are usually at greater risk of infection than summer raspberries because of the prevailing weather conditions, such as lower temperatures, heavy dews and frequent precipitation. Cool, wet weather, and heavy rains in the late summer and fall that keep the plants wet for extended periods are conducive to development of the fungus and infection of the fruit.

Typical symptoms include a brown discoloration of the fruit and the presence of a gray fuzzy mold, which can rapidly develop and spread to neighboring healthy berries. Symptoms tend to be more severe inside the canopy and on clusters that are closer to the ground. Even if berries look perfectly healthy at harvest, they can change to a moldy mass within 24-48 hours.

Botrytis cinerea is a ubiquitous fungus, which is able to grow and sporulate profusely on dead organic matter. It overwinters in old infected canes and plant debris. The spores are airborne and can travel long distances on the wind.

When the spores land on plant surfaces, they germinate and can invade the plant tissues directly or through wounds. Over-ripe berries and bruised berries are particularly susceptible to infection. Latent flower infections, even though they do occur, are not as important in raspberries as they are in strawberries.

Cultural methods are very important for control of *Botrytis* gray mold. Choosing a site with good air flow can reduce humidity in the canopy considerably. Low-density plantings, narrow rows and trellising can also reduce a buildup of humidity. Good weed control and moderate fertilizer use to avoid lush growth are also important. Selecting a resistant cultivar or, at the minimum, avoiding highly susceptible cultivars will help to reduce the need for control measures. During picking, avoid handling infected berries, since spores can be transferred on hands to healthy berries. Timely harvesting and rapid post-harvest cooling can also help to reduce losses to *Botrytis* gray mold.

Several fungicides are labeled for control of *Botrytis* in raspberries. Fungicide sprays during bloom are important to prevent pre-harvest infections, while post-harvest infections can be reduced by sprays close to harvest. Switch (cyprodinil + fludioxonil) is a reduced-risk fungicide with excellent systemic and protectant activity against gray mold. It has a 0-day pre-harvest interval (PHI). Another good option is Elevate (fenhexamid), which is a reduced-risk, locally systemic fungicide with a 0-day PHI. Since these fungicides are in different chemical classes, they can be alternated for fungicide resistance management. My recommendation is to save Switch and Elevate for critical sprays, e.g., during wet periods and for sprays closer to harvest. Other fungicides that may be used in the spray program are Captivate (captan + fenhexamid) (3-day PHI), Pristine (pyraclostrobin + boscalid) (0-day PHI), Captan (captan) (3-day PHI), Rovral (iprodione) (0-day PHI) and Nova (myclobutanil) (0-day PHI). To improve the efficacy of Rovral, an adjuvant should be added. Pristine and Nova also provide excellent control of late leaf rust, which sometimes infects the leaves and fruit of fall raspberries. ❁

Promoting Bramble Fruit

NABGA is being approached with increasing frequency by companies eager to work with us in promotions. For example, we've been approached by a company marketing a new Berry Crisp cooking kit (just add berries) that could be carried by retail farm markets and may offer the possibility of cooperative coupons (if you want to know more, contact the NABGA office). We've also been approached by a company that places coupons in newspapers and point-of-purchase advertising in grocery stores.

The wide variety of our members, both in geography, size, and type of marketing, plus NABGA's very limited funds makes any of this this problematic, yet there is certainly huge room for growth in berry consumption, and the value of opportunities for promoting bramble fruit to consumers is high. A lot of larger commodity organizations do this very well. Think “Got Milk?” It's a situation where perhaps NABGA can creatively combine with other partners, such as the large marketers of berry fruit, processors, producers of products that go well with berries, and other berry organizations.

NABGA's recent promotional efforts have included preparing health benefit handouts and recipe cards that our individual members can use with their own customers, and some outreach to the media., but what else should we do? What works best for you? What do you need? Who might be our partners? And what ideas do you have? Health benefits are in the news, and the time seems ripe!

Contact any member of the Executive Council or the NABGA office.

GROWERPROFILE

Raising Premium Fruit

At New York City's Greenmarket in Union Square, people line up to get Jack Torrice's raspberries on Saturday morning. They pay \$6.00 for a half pint. Sometimes they buy a lot of them. Jack says that when one man who usually bought a dozen instead bought thirty, he asked him about it. "I just really like raspberries," the man said. Though the market runs 8 am until 6 pm, Jack always sells out by 11:30. Chefs call him up to find out when he will start coming.

Why the fuss? Jack Torrice raises greenhouse raspberries. His raspberry harvest season starts in mid-April and finishes in mid-June, about two weeks before the field-grown raspberries from New Jersey and Pennsylvania start to come into the Greenmarket. Raspberries are all he's allowed to sell there; although he also has flowers at that time of year, this well-established, popular farmers' market only gives out new spaces based on products needed, and they already had plenty of flower growers.

Jack and his wife, Martha, farm in Oswego, NY, a six-hour drive from New York City. The main crops at Fruit Valley Orchard are tree fruit – they have about 60 acres of apples, pears, and cherries— plus a couple of greenhouses of flowers. Everything sells locally except the raspberries; he could never get that kind of price in Oswego.

A few years ago, diversifying, he planted about a fifth-acre of raspberries for PYO. Then, after he heard a talk on

Blackberry Cookbook Under Construction

Tom Doyle of Doyle's Thornless Blackberries is revising and reorganizing the cookbook his nursery sells. The current cookbook has 150 recipes, and the new one will be bigger. He plans to make copies available at a reduced price to other NABGA members. Contact Tom at tomdoyle@fruitsandberries.com or 812-254-2654. He'd like to hear from you soon to help him decide how many to print.



In early April, the berries are just starting to ripen in the greenhouse. Orange twine supports the plants. Photo by Dena Fiacchino.

greenhouse raspberry production at a NY growers conference, he bought Cornell's *Greenhouse Raspberry Production Guide* (see box), and gave it a try. "They are a lot more fun to grow indoors," says Jack.

He started three years ago with one 20 x 72 greenhouse and 128 raspberry plants, putting them in 3-gallon pots, with a soilless potting mix and drip irrigation. The following year, he moved the plants to a 30 x 90 greenhouse, and increased to 180 plants. Last year, he had divided some of these and had 305 plants in two 30 x 90 greenhouses; he will add another 45 plants to fill them up this year. About four-fifths of the plants are Tulaheen and the rest are Titan.

In late June, the plants are moved outside, where they stay until they receive their requisite 800 chilling hours. Then, Jack moves them into the greenhouse and fires up the heat, and they break dormancy in a few weeks. Usually they have fulfilled their chilling requirement by January first, though last year it was so warm, they didn't meet this requirement until the end of January, which threw the harvest season off. And last year, the Tulaheen plants suffered major cold damage when the weather dropped to 12

degrees before Christmas. In hindsight, he says, he should have moved the plants indoors, but he hadn't expected it to get that cold, and it is a lot of work to move all those pots. The Titan plants weren't affected.

Jack buys a box of bumblebees for each greenhouse for pollination, carefully screening off the fans so they don't get chewed up. He has not had to spray for pests or diseases in the greenhouse, but notes that if a problem happens in the greenhouse, it can get out of hand in a hurry. One year, spider mites started to build up, but it was at the end of the season, so after he took them outside, he sprayed them with dormant oil.

Jack starts picking on Sunday for next Saturday's market. The secret of success for this extended shelf life is that all the fruit is harvested with the calyx intact: the berries are clipped from the plant with scissors instead of being pulled off the plant. The stems are cut very short so that they don't poke holes in other berries. The fruit are harvested directly into clamshells and then stored at the recommended 37 degrees. When he sells, Jack does not distinguish between berries picked almost a week ago and those



Resources

Greenhouse Raspberry Production Guide, Dept. of Horticulture, Publication 23, by Kurt Koester and Marvin Pritts, 38 pages.

The online version can be viewed or downloaded at www.fruit.cornell.edu/Berries/bramblepdf/ghrasp.pdf. To order bound copies, send a check for \$9.50 (payable to Cornell University) to: Dept. of Horticulture
Attention: Max Welcome
134a Plant Science Bldg.
Cornell University
Ithaca NY 14853-5904

From www.fruit.cornell.edu/Berries/:

Winter greenhouse raspberry production has many advantages for northern growers, including:

- Little to no domestic competition.
- Retail price is between \$3.00 and \$6.00 per half pint.
- Greenhouses are often empty between December and April.
- Farm labor is generally underutilized in winter.
- Raspberries grow best at cool temperatures.
- Raspberries do not require supplemental light to produce fruit.
- Raspberries can be produced in greenhouses without pesticides.
- They can be harvested close to market at the peak of flavor.
- Quality is superb.

A few weeks later than in the photo to left, in late April or early May, plants are much taller and berries are being harvested. Photo by Dena Fiacchino.

picked the day before the market. Says Jack, “Often people say that they just finished the ones they bought last week – and those berries are almost two weeks old.” The berries are big and with those little stems, sometimes people even think they are strawberries.

At the peak of the season, it takes two people about 5-6 hours to pick all the fruit. Clipping the berries is a little slower than regular picking, but, says Jack, “We have it down to a science.” So far, they’ve been able to do most of the picking with just family labor. At full production (which will increase since the plantings are increasing), he’s taken up to 350 half-pints to the market. The fewest half-pints he’s taken has been 30, but since the Torrices have a son on Long Island, they could drop by the market that day on their way.

Jack has no doubt that he is making money with the raspberries; though the freeze damage last winter cut into his production severely last year, he still did better than break even. Certainly he’s enjoying growing and selling them. His customers’ enthusiasm must be inspiring and help make that long drive worthwhile. ❁



Protected Raspberry Culture To Be Featured at the 2008 NABGA Conference

Plan to attend this “mini-workshop” on Wednesday, afternoon, January 30! Both greenhouse and high tunnel production will be addressed. Comments Ralph Cramer of Haygrove Tunnels, “Raspberries respond extremely well to tunnels. Growers report that compared to field production, the shelf life is more than double and the yield is more than triple. Plus the average price is higher because they harvest earlier and later than the field. One tunnel grower averages 11,000 pounds per acre on 12 acres of tunneled Autumn Britten and he harvested 14,000 pounds on his best acre. He rarely has to spray any fungicides. As he says, “Growing raspberries in tunnels is a no-brainer.”

New NABGA Recipe Cards

The page to right features one of NABGA's new Recipe Card masters, created as an easy to use resource for members who want recipes to give out to their customers. A notice of the launch of this resource was sent out to members via email in July. The recipe card masters are designed so that you can easily and inexpensively photocopy them in whatever quantities you want. The page you see here features four of the eight raspberry recipes that have been selected; there are also two pages of blackberry recipes and a page of black raspberry recipes. These are ready-to-print pdf files that can be downloaded from the Members Only section of our website. If you don't have a computer, I can send you hard-copies via mail. You can take (or email) them to a copy shop or print them out on your own printer. The pages will cut into individual recipe cards that fit nicely into a 4 x 6 recipe box, one of the standard sizes. You can put your own farm information on the back of each card.

I "consumer tested" these at a Blackberry Festival in Lenoir, NC in July, and

they were very popular. I experimented, printing them on colored and white paper and on cardstock, and I can't say that people picked up one more quickly than another; it's mostly a matter of cost and preference what you choose. I also printed some full, uncut pages of all the recipes which I gave to people who looked like they wanted all of them, so they didn't spend a lot of time picking through my stacks. In the process, I realized that there are some drawbacks to having four different recipes on one card – one can be a lot more or less popular and they may not get picked up at the same rate. When I get time, I will also create single-recipe versions that are "four-up."



Ervin Lineberber and Debby Wechsler at the NC Blackberry Festival in Lenoir, NC. NABGA's recipe cards were popular and fairgoers were awed by the size of commercial blackberries. NABGA's participation and Recipe Contest prizes were sponsored by SunnyRidge Farm and Jones Farms. Photo by Tammy Koukoulis Photography.

With this standardized design, these are very easy for me to make, and I can make as many as we have good recipes. Let me know what you'd like.

— Debby Wechsler

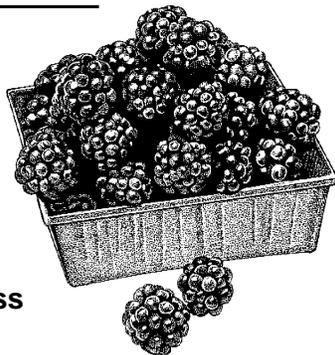
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BAVARIAN RASPBERRY CREAM PIE

- 1 baked cooled pie shell (9 inch)
- 2 pints raspberries (1 quart)
- 1 cup sugar
- 2 Tbsps. gelatin
- 1 Tbsp. lemon juice
- 2 cups of whipped cream

Crush 1 quart (roughly 2 pints) raspberries and add one cup of sugar. Let stand ½ hour. Soak 2 tablespoons of gelatin in 3 tablespoons of water, dissolve in 3 tablespoons of boiling water. Stir into berries. Add one tablespoon lemon juice. When almost set, fold in 2 cups of whipped cream. Pour into pie shell and cool. Sprinkle top with granola, coconut, chocolate shavings, or more whipped cream and fresh berries.

From Nourse Farms, South Deerfield, MA (www.noursefarms.com).

For more recipes, visit www.raspberrblackberry.com.

ROYAL RASPBERRY CAKE

- 2 cups all-purpose flour
- 1/2 tsp. salt
- 1 Tbsp. baking powder
- 1/3 cup butter, room temperature
- 1 cup sugar
- 1 egg, room temperature
- 1 cup milk, room temperature
- 1 tsp. vanilla
- 1 tsp. vanilla
- 3 1/2 cups fresh or frozen (unthawed) raspberries, whole, unsweetened
- Glaze:
 - 1 1/2 cups confectioners' sugar
 - 2 Tbsp. cream or milk
 - 1 tsp. vanilla

Stir together first three ingredients in a bowl with wire whisk; set aside. Cream softened butter with mixer; add sugar gradually, beating well after each addition until mixture is fluffy and light. Stir in egg; beat 1 minute. Combine milk and vanilla. Add dry ingredients alternately with milk/vanilla mixture, beating well after each addition. Spread cake batter in greased, floured 13x9x2-inch baking pan. Spread the berries evenly over top of batter. Bake at 350 degrees for 30-35 minutes or until center of cake springs back when lightly touched. Cool 5 minutes. Combine glaze ingredients, spread over cake, leaving berries exposed. Serve warm, with vanilla ice cream. Yield 16-20 servings.

Source: NABGA members Cindy and Frank Femling, Afton Apple Orchard, Hastings, MN. (www.aftonapple.com). For more recipes, visit www.raspberrblackberry.com.

ENGLISH-STYLE RASPBERRY SUMMER PUDDING

- 1 1/2 cups white sugar
- 1 tablespoon water
- 3 cups fresh raspberries
- 6 slices white bread
- 2 cups sweetened whipped cream

In a saucepan over medium heat, combine the sugar, water and raspberries. Cook, stirring carefully so as not to damage the berries, until the mixture is hot and the sugar is dissolved. Set aside to cool slightly.

Line a 1-quart bowl with 5 slices of bread. Pour the raspberry mixture over the bread, and place the last slice of bread on top. Cover the bowl loosely with plastic wrap. Place a weight on top of the bowl (like a heavy plate with a can on top), and refrigerate overnight.

The next day, remove plastic wrap, and invert onto a plate. Serve chilled topped with whipped cream. Yield: Serves 4

For more recipes, visit www.raspberrblackberry.com.

RASPBERRY COBLER

- 1 cup sugar
- 3 Tbsp. cornstarch
- 1 cup water
- 1/2 tsp. vanilla
- 4 cups fresh or frozen raspberries
- Topping:
 - 1 cup flour
 - 3/4 cup sugar
 - 1/4 cup margarine (or butter)
 - 1 beaten egg

Mix sugar, cornstarch, water, and vanilla. Cook over medium heat until thick. Add berries and pour into baking dish. For topping, mix flour, sugar, and margarine as if making pie dough. Add egg. Mixture should appear crumbly. Sprinkle over fruit mixture. Bake at 400 degrees for about 40-45 minutes or until topping is lightly browned.

Source: Champaign Berry Farm, a NABGA member farm in Cable, Ohio.

For more recipes, visit www.raspberrblackberry.com.

NABG Research Foundation

Continued from page one

plants and berries, their cultivation and farming, their precooling and shipping and the eradication and control of their diseases, pests, and predators.”

Each year since 1999 (except 2002) a Request for Proposals (RFP) has been sent out to the bramble research community. As of 2007, 34 proposals have been funded for a total more than \$63,000. Typically, 4-10 proposals are submitted each year, NABGRF funds 3-7 proposals each year, and individual awards range from \$1000 to \$3,000.

Since 2005, the NABG Research Foundation has developed a cooperative funding arrangement with IR-4 (Interregional Research Project No. 4), a federal program that supports research on pest control tools for minor crops. Proposals submitted to the Foundation are also evaluated by IR-4 to determine if there is an opportunity for a collaborative arrangement for funding between the organizations. IR-4 reviews the proposals and notifies the Foundation which proposals it would be interested in funding cooperatively. Generally IR-4 and the NABG Research Foundation each provide about half the funding for these projects.

The NABG Research Foundation has a Board of Trustees, made up of 3-5 members of the NABGA Executive Council, and a Research Committee comprised of a Chair and 7-11 committee members (see website for names). Mem-

bers hail from east to west coast, small to large farms, and private industry, nurseries, and University and USDA-ARS personnel. All members are asked to serve a minimum 3-year term.

RFP Process

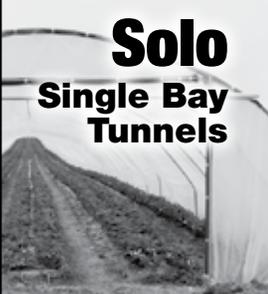
The Request for Proposals is sent out by to the bramble research community via hard copy or email. In the past, the chairperson then compiled the proposals and sent them out to each member of the Research Committee for preliminary review. For the 2007 RFP, an electronic submission and evaluation system was instituted via the NABGA website (<http://www.raspberrylblackberry.org/Proposals/>). Proposals were submitted electronically by researchers and evaluated electronically by the Committee. Reviewers rank proposals “Fund/Don’t fund/Fund if money is available” and make comments.

Each year at the NABGA annual conference, the Research Committee meets and discusses each proposal for final recommendation as a group. Members discuss the preliminary rankings and rank proposals again collectively. The Research Committee then gives a list of proposals to fund and a suggested level of funding to the NABGA Board of Trustees, which makes the final decision. Each awardee is notified by the Board of Trustees and is asked to submit a report suit-

able for publishing in an upcoming issue of *The Bramble* and if possible, speak at a future meeting of NABGA.

Although the level of funding from NABGRF is low compared to some other grower organizations, the impacts are great. Since NABGRF is the research arm of the only national bramble grower organization, its support is meaningful and our voice is heard by universities and by the Federal Government (USDA). Support from this organization has helped keep some research programs viable and enabled other programs to leverage additional funds from other sources.

Although NABRF has a general list of research priorities, the Research Committee also compiles a list of specific research priorities each year. The Research Committee welcomes suggestions from the NABGA membership. You can send your suggestions to either Gina_Fernandez@ncsu.edu or to nabga@mindspring.com at any time during the year. Please also email Gina_Fernandez@ncsu.edu or nabga@mindspring.com if you have any questions or would like additional information. ✿

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Food Safety in the Berry Patch

Edited from an article by Sanja Ilic and Jeff LeJeune, Food Animal Health Research Program, and Doug Doohan, OSU Dept of Horticulture & Crop Science

Pick-your-own berry operations are becoming increasingly popular, offering growers an additional market outlet and allowing folks of all ages to tour agricultural areas, experience life on the farm and enjoy fresh, locally grown fruit.

Strawberries, raspberries, blueberries, blackberries, and other small fruits are also full of vitamins, fiber and compounds such as anthocyanins and ellagic acid which several studies, including some by Ohio State University researchers, have found to be powerful cancer-fighters.

In spite of their multiple benefits, fresh fruits and vegetables have been recently linked to several cases of foodborne illnesses involving dangerous bacteria and parasites.

When families visit the berry patch for a fun PYO experience, the last thing you want to have happen is for them to pick dangerous germs instead. To make that experience a safe one, food safety experts with OSU Extension and the Ohio Agricultural Research and Development Center recommend customers follow some basic hygiene and food-handling principles while at the farm, during

the trip back home, and in their kitchen.

Simple Tips for Safe Harvesting and Enjoyment of PYO Berries

1. It may sound simple, but washing your hands and making sure the little ones do the same thing is one of the most effective ways to prevent food contamination.

Wash your hands:

- Before picking fruit.
- After every visit to the bathroom.
- After a break or meal.
- After hand-to-face contact (e.g., coughing, sneezing, blowing nose).
- After handling any materials other than the berries.

Use proper hand-washing techniques:

- Wet hands, lather soap for 20 seconds (sing "Happy Birthday" twice).
- Scrub well (especially fingernails and knuckles); use fingernail brushes if available.
- Rinse.
- Dry hands and wrists with paper towel.

If there is no water?

- Use hand wipes to remove soil.
- Use hand sanitizer.

2. Use the bathroom facilities provided by the PYO operation [not the field!].

3. Do not pick or eat berries that have fallen on the ground.

4. Place picked berries into clean containers.

5. Do not bring pets to the farm.

6. Remain in the designated picking area.

7. Dispose of garbage in trash bin provided.

During Transportation

When bringing the berries you picked home, it is important not to break the cold chain. Even though you may see un-refrigerated berries in the supermarket, fresh fruit should be kept cold. Follow these tips: bring a cooler with ice packs with you, cool your berries as soon as possible, do not drive around with un-refrigerated berries for more than two hours.

At home (preparation)

Many cases of foodborne illnesses result from mishandling food at home. The same applies to fresh fruit. Keep the following in mind upon returning from the berry patch: always refrigerate berries, wash berries before using, prevent cross-contamination of berries (and other fresh produce that will not be cooked) from potentially contaminated foods such as raw ground beef. ❄️

Be sure to set up your PYO operation to make good hygiene easy for customers: provide water, trash cans, paper towels, and clean, attractive, easily accessible toilet facilities.

PLEASE WELCOME THESE NEW MEMBERS!

Below are new members and corrections received since the newsletter was published in June. You may want to clip or copy this list and attach it to your membership directory. An up-to-date list is also in the Members Only section of the website.

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Chrislyn is also a new member of the NABG Research Foundation Research Committee

John Wuelzer
Wuelzer Acres

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Corrections/Changes:

Bob and Colleen Blain:
now boco@riverfrontberryfarm.com

Barbara Hamilton:
now b.j.hamilton@earthlink.net



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

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Mark Your Calendar!
*See page 1. More information
coming soon.*

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 mpbolda@ucdavis.edu.

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GROWERS ASSOCIATION (NABGA)
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