



# The Berry Basket

Newsletter for Missouri Small Fruit and Vegetable Growers

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## From the Editors

by Marilyn Odneal

We hope everyone survived the ice storms of winter and are planning to attend the upcoming meetings and conferences. In this issue of the Berry Basket we have information on the **Missouri Small Fruit Conference**, held in Springfield on February (15-basics), 16 and 17 as well as a program for the **Southwest Missouri Spring Horticulture Conference** to be held in Mount Vernon on March 20.

Please note the business reply card inserted in this newsletter. **Please fill out the business reply card and return it in order to continue to receive the Berry Basket Newsletter.** If you do not wish to continue to receive the Berry Basket, you do not have to send it in. Please direct all suggestions to: Marilyn Odneal, SMSU Research Campus, 9740 Red Spring Road, Mountain Grove, MO 65711, phone: 417-926-4105, fax: 417-926-6646, e-mail: mbo774t@mail.smsu.edu.

## The "Healthy" Blues

by Ben Fuqua

Blueberries — A health food? Several recent studies indicate that blueberries are not only nutritious and good tasting, but contain specific agents that help fight many diseases, including cancer, heart disease, urinary tract infections, and other age-related health risks. At a time when many of us are fighting the winter "blues", it's refreshing to hear that our health condition can actually be improved by eating more! The following are just a few examples that confirm what most Missouri blueberry growers already know; blueberries are good for you.

According to USDA laboratory analyses, blueberries are packed with nutrition. One-half cup of raw blueberries has nearly 2 grams of fiber, but contains less than 0.3% fat (total) content, 0% cholesterol, and only 42 calories. A half cup of blueberries provides 0.5% of the recommended daily requirements of calcium, 1.5% of iron, and nearly 1% of the phosphorus needed. Blueberries also contain significant amounts of potassium and magnesium, along with lesser quantities of sodium, zinc, manganese and selenium. Blueberries are a rich source of Vitamins A and C; a half-cup of berries providing 1.5% and 15.7% of the recommended daily requirements, respectively.

In another USDA study conducted at the Jean Mayer Human Nutrition Center on Aging at Tufts University, blueberries ranked number one in antioxidant activity when compared to 40 other commercially available fruits and

vegetables. Antioxidants are natural compounds found in fruits and vegetables which neutralize unstable oxygen molecules associated with cancer, heart disease and the effects of aging. These increased health benefits were attributed to anthocyanins (responsible for the blue color) and other natural compounds (phytochemicals) found in blueberries. While lowbush blueberries had slightly higher amounts of these compounds than highbush blueberries, highbush blueberry cultivars still contained higher levels than other fruits and vegetables tested. As expected, darker-colored berries had higher levels of anthocyanin and rated higher in antioxidant capacity. The light-blue berries from the cultivar Bluecrop rated lower in antioxidant capacity than other highbush blueberries in this test, but still rated higher than most fruits and vegetables. While a higher antioxidant capacity would be more desirable, in reality, this simply means that a few more of the lighter-colored berries must be eaten to get the same amount of antioxidants as the darker-blue fruit.

A five-year research study conducted at Rutgers University found that blueberries and cranberries were both beneficial in fighting urinary tract infections. The Rutgers scientists identified condensed tannins (proanthocyanidins) in these fruits as the compounds responsible for blocking or prohibiting the growth of bacteria that caused the infections. Their recommendation: “A daily fistful of blueberries or a 10-ounce glass of cranberry juice will go a long way in preventing urinary tract infections and promoting good health.”

The new, revised USDA food pyramid recommends 5 to 9 servings of fruits and vegetables per day. This quantity not only helps balance the diet, it also helps provide the antioxidant nutrients and other natural substances your body needs. Adding fresh or frozen blueberries to cereal, salads, muffins, pancakes, pies, cakes, etc. is an excellent way to get your daily dose of health food. With all the information coming out about the “healthy” blues, I suggest we may want to modify some of

the old slogans to: “A blueberry (probably blueberries) a day will keep the doctor away” or maybe; “Take two blueberries and call me in the morning”!

## Blueberry Council News

*by Bob Hershey*

The Blueberry Council has added many new members this past year. The most recent members are:

### **Pinetree Lane Berry Farm**

Russ and June Nash  
Easton, Missouri

### **Eichenseer Blueberry Farm**

Casimir and Amy Eichenseer (pronounced I-can see-her). The Eichenseers purchased Jack Rogers’ farm at Lebanon, Missouri.

### **Wind Ridge Farm**

Carole and Barry Shortt  
New Melle, Missouri

### **Stonehaus Farms**

Ken and Carol Euritt (pronounced your-it)  
Lee’s Summit, Missouri

We have ten new members! Let’s all welcome them to this organization. Please note that at the end of this newsletter is an application for membership in the Missouri Blueberry Council.

In the fifteen years we have had blueberries, we have accumulated a list of contacts for advice and supplies. I hope this list, beginning on the next page, can be of help to prospective blueberry growers as well as the old-timers.

**Contacts****Animal Damage Control**

(A grower must first contact this office to report bird damage and acquire necessary permits.)

Dan McMurtry

USDA-Animal Damage Control

2407 Industrial Drive

Columbia, Missouri 65202

(573) 446-1862

(573) 446-1942 FAX

**Damage Caused by Native Animals**

Contact your local Conservation Agent.

**Plant and Soil Nutrient Analysis**

Soil and Plant Testing Services

23 Mumford Hall

University of Missouri

Columbia, Missouri 65221

(call for forms and instruction)

(573) 882-0623

(573) 884-4288 FAX

**General Information**

Contact your local University Extension Office  
or

University Extension

207 Agriculture Building

Columbia, Missouri 65211

**Bird Control supplies**

Reed Joseph International

Box 894

Greenville, Mississippi 38702

(blast cannons, pyrotechnics, launchers, etc.)

1-800-647-5554

(601) 335-8850

Stoneco Inc.

P. O. Box 765

Trinidad, Colorado 81482

(Manufacturer of Shellcrackers)

(719) 846-2853

**Bird Control Supplies *continued***

R. J. Advantage

501 Murray Road

Cincinnati, Ohio 45217

(ReJeX-iT AG-145)

(513) 482-3720

(513) 482-7377

**Annual Scales Certification**

State of Missouri

Department of Agriculture

Department of Weights and Measures

(573) 751-4273

**Missouri Tax Registration Applications**

(Sales, corporate, employer tax information)

Missouri Department of Revenue

Division of Taxation and Collection

Office of Registration/Records

P. O. Box 840R

Jefferson City, Missouri 65105

(You are required to collect sales tax on farm produce sold at retail)

**To Register Farm Name:**

Secretary of State

P. O. Box 778

Jefferson City, Missouri 65102

**Merchant's License**

Contact your local county collector of revenue.

If your farm is within city limits, you may also need to contact City Hall as there may be an additional license requirement.

**Processed Product Requirements/Approval**

If you process fruits and vegetables for resale, or plan to do so, contact:

Missouri Department of Health

P. O. Box 570

Jefferson City, Missouri 65102

(573) 751-6095

(573) 751-6010 FAX

**Missouri Labor Standards**

Division of Labor Standards  
3375 West Truman Blvd.  
P. O. Box 449  
Jefferson City, Missouri 65102  
(573) 751-3404

**Bees for Pollination**

Missouri Beekeepers Association  
Mr. Neal Bergman, President  
P. O. Box 591  
Kennett, Missouri 63857  
(573) 888-1310

**Picking Buckets and Supplies**

Agri-Pack  
870 Louisiana Avenue South  
Minneapolis, Minnesota 55426  
1-800-818-2698

**Blueberry Plants**

DeGrandchamp's Blueberry Farm  
15575 77th Street  
South Haven, Michigan 49090  
(616) 637-3915  
(616) 637-2531

Highlander Nursery  
Lee McCoy, Owner  
P. O. Box 177  
Pettigrew, Arkansas 72752  
(501) 677-2300

Hartman's Plant Company  
P. O. Box 100  
Lacota, Michigan 49063-0100  
(616) 253-4281

**Blueberry Plants *continued***

Fall Creek Farm and Nursery, Inc.  
393 18 Jasper-Lowell Road  
Lowell, OR 97452  
(541) 937-2973  
(541) 937- 3373 FAX

**Agri-Chemicals/Supplies**

BWI Companies, Inc.  
Dyellen Perry, Sales Representative  
Springfield, Missouri  
1-800-247-4954

Also check with local farm suppliers.

**Farmers' Market Information**

Missouri Department of Agriculture  
Market Development Division  
P. O. Box 630  
Jefferson City, Missouri 65102-0630  
(573) 751-3394  
(573) 751-2868

**Blueberry Council Zone Directors**

Northwest - Tom Willis (816) 658-3663  
Northeast - Robert Linke (314) 456-2332  
Southwest - Art Steinbaugh (417) 744-2045  
Director at Large - Jay Chism (417) 673-5555  
or -3734  
Director at Large - Jill Carter (417) 452-4160

**Blueberry Council Board of Directors**

President - Bob Hershey (573) 547-4448  
Vice-president - Robert Carter (417) 451-4160  
Secretary/Treasurer - Ronnie Hershey  
(573) 547-4448  
(573) 547-4502 (daytime)

## Starting Plants from Seeds

by Gaylord Moore

Whether you grow for pleasure or profit, starting your own plants from seeds can be a challenge. Before you get started, be certain to consider whether or not you have the correct growing environment to achieve adequate germination and healthy plant growth. If not, you may leave the growing to the experienced greenhouse operators who can minimize possible risks. Small fruit growers who are thinking about adding vegetable crops grown from bedding plants to their operation should seriously consider contracting their bedding plant needs with local greenhouses. First, the added expense of greenhouse construction may not fit your budget. Second, you may not have the expertise to grow healthy, vigorous plants. You may want to supplement your business with vegetables on a trial basis. If the results are positive, plans for further incorporation into your overall operation will be the next step. At that time, decisions on whether or not to grow your own transplants can be made.

Almost everyone who has an interest in growing plants has tried starting plants from seed in their home. I am sure some have been more successful than others and probably with good reason. For your enjoyment and a good challenge, try growing some bedding plants in the home.

There are several requirements necessary for good seed germination and healthy plant growth.

1. Start with good quality, fresh seed. Seed left over from previous years and not stored in an adequate environment may not germinate well.

2. Choose your growing container. The proper container helps get seedling off to a good start and may save work in later stages of development. Any growing container should be cleaned before using. Make sure the container has drainage holes in the bottom or is porous enough to drain well.

3. Choosing the correct growing media is also important. I suggest soilless mixes that are prepared specifically for starting seeds. Soilless

mixes are less apt to be contaminated with harmful diseases that may affect young germinating seedlings.

4. Be sure to watch your watering techniques. Keep your mixes moist: but never soggy. A good rule is to allow drying between watering, but don't allow seedlings to wilt at any time. As mentioned before, make sure your container allows water to drain out so the seedlings do not sit in waterlogged conditions at any time.

5. Be aware of available light. Seedlings must receive bright light promptly after germination. If a large, bright window is not available, place the flats under fluorescent lights. Place the seedlings about 6 inches from the light tubes, and keep the lights on for 14 to 16 hours each day.

6. Closely watch the room temperatures. Night temperatures should be about 60 degrees Fahrenheit and day temperatures, around 70 degrees. If temperatures are much warmer than these, the result will be leggy plants. Cool season vegetables may respond better to a little cooler temperature, so adjust temperature according to the crop you are growing.

7. Seedlings will need some fertilization. Those in totally artificial mixes need prompt and regular fertilization. Some soilless mixes have plant nutrients included. Make sure you check the bag to see whether or not fertilizer is included. Soluble fertilizers high in phosphorus with a ratio of 1-2-1 are generally adequate.

These are only a few of the needed requirements for germinating seed and plant development. If you would like more information on growing bedding plants from seed or greenhouse production, you may contact the University Extension.

## Missouri Small Fruit Conference

*by Patrick Byers*

The Department of Fruit Science of Southwest Missouri State University is pleased to invite all commercial and home fruit growers to the 1999 Missouri Small Fruit Conference, scheduled for February 15-17 in Springfield. Strawberry, blueberry, blackberry, grape and raspberry growers will find a wealth of information at the Conference.

The Conference opens on Monday, February 15, with the Back to the Basics Workshop. The workshop includes a panel discussion with small fruit growers, presentations on financial planning, a tour of SMSU's State Fruit Experiment Station, and a hands-on demonstration of small fruit irrigation.

The conference continues on Tuesday and Wednesday with presentations on a wide range of topics concerning small fruit, including marketing, food safety, mulches, propagation, pest management, fertilization, winemaking, producer grants, and more. A trade show will include nurseries, tool and equipment suppliers, irrigation specialists, and pest management companies. For a real treat, stop at the Taste Test Table, which includes many Missouri produced value added products. Finally, the conference offers a unique opportunity to visit with successful small fruit producers and learn from the real experts.

The 1999 Missouri Small Fruit Conference is scheduled for February 15-17 in Springfield. For additional information or a conference registration form, please contact Patrick Byers, Fruit Grower Advisor, Department of Fruit Science, SMSU Research Campus, Mountain Grove, MO; phone 417-926-4105, or email [plb711t@mail.smsu.edu](mailto:plb711t@mail.smsu.edu).

## Southwest Missouri Spring Horticulture Conference

**Saturday, March 20, 1999**

**9:00 a.m. - 2:30 p.m.**

### Southwest Research Center

Topics will include: Fruit varieties for southwest Missouri; advanced vegetable gardening; soil nutrient management; landscaping with native Missouri wildflowers; apple and blackberry culture; lawn and turf care; Shitake and oyster mushroom cultivation; hanging baskets for summer; gardening for market; organic pest control options for home gardeners; grafting nut and fruit trees; and raised bed gardening.

### Sponsors:

University of Missouri - Columbia  
Southwest Research Center  
Southwest Missouri State University  
State Fruit Experiment Station  
Ozark Chapter of the North American Fruit Explorers  
Southwest Missouri Nut Growers Association  
University of Missouri Outreach and Extension

Cost is \$7.00 per person, which includes lunch. Attendance is limited to the first 100 registrants, therefore, pre-registration is recommended. Sessions will be held indoors and out, so please dress appropriately. The Southwest Center is located 4 miles southwest of Mt. Vernon on Highway H and can be reached from I-44 via Exits 38 or 44. Call 417-466-2148 for more information.

