

Small Fruit News

the Southern Region
small fruits consortium

Volume 3, No. 3

July 2003



Clemson University
NC State University
University of Georgia
University of Tennessee

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Frequently Asked Questions Concerning New UGA Blueberry Varieties

D. Scott NeSmith
University of Georgia

The University of Georgia's Blueberry Breeding Program is in the process of releasing several new blueberry varieties for use in Georgia and across the Southeast. These releases include both rabbiteye and southern highbush blueberry varieties. We are very excited about the progress we are making for the industry, however, at times the process involving new blueberry cultivar releases becomes confusing. This is a brief guide (list of frequently asked questions) for obtaining information on new releases and procedures for getting material for propagation and utilization.

Q. What is a new blueberry variety?

A. A new blueberry variety is a new and distinct plant that has been developed by UGA and/or USDA plant breeders who have crossed (bred) desirable lines. The new variety generally has been through years of testing by University scientists and cooperators.

Q. Is the new variety better than existing varieties?

A. A new variety is usually released because it has been observed to have one or more traits that is superior to existing varieties. These traits may include higher yields, better fruit quality, more desirable flowering times, more vigorous plants, more desirable ripening times, and other such characteristics. Occasionally, a new variety may be released as a companion to an existing variety, since most blueberries benefit from cross pollination.

Q. What does a "variety release" mean?

A. The term "release" indicates that the UGA breeding program is ready to make the new variety available to the public. For years data from a limited number of plants have been carefully taken and analyzed, and there is a good probability that the "new release" will benefit the industry.

Q. Are new varieties guaranteed to out-perform existing varieties?

A. No. There are no guarantees with new releases. The hope by UGA in releasing the new variety is that it will be beneficial to the industry. Testing has indicated that the variety performs well in the tested environments, however, varieties are not tested under all conditions.

Also, testing is usually done on small plots of plants (5, 10, maybe 50), but never on large acreage. So, when a variety is released to the public, there will still be some “testing” being done by growers. In fact, growers are urged to try a new variety to see how it fits their production system and goals before they plant several acres.

Q. How can I get plants of a newly released variety?

A. All new blueberry cultivars released from UGA, as with other plant cultivars and inventions, are property governed by the University of Georgia Research Foundation (UGARF). UGARF seeks plant protection or patenting. Once decisions have been made to plant protect, the actual licensing and distribution of the plant material of the new cultivar are handled by the Georgia Seed Development Commission (GSDC), which is an office under the State Department of Agriculture or Agricultural Commissioner’s Office. So, contact the Georgia Seed Development Commission, 2420 South Milledge Ave., Athens, GA 30605. Ph. 706-542-5640.

Q. So, if I contact the GSDC, they will give me plants?

A. It is not that straight forward. When a new variety is released, there is an attempt to have initial stock for distribution to plant propagators. The amount of stock available varies, and is distributed to only those that have been licensed to propagate. So, GSDC, once contacted, will send you paperwork for obtaining a license to propagate the new variety.

Q. So, once GSDC sends me paper work I will be a licensed propagator?

A. No. You have to sign the agreement and send it back in to GSDC. Then, and only then, will you be a licensed propagator. At that point, GSDC will instruct you on how/when/where to obtain plants or cuttings. If you do not hear from them, contact them again to ask about your plants.

Q. What if I am not a commercial propagator, but simply a grower who likes to propagate his/her own material for production, can I still be licensed?

A. Yes. GSDC will issue propagation licenses to grower/propagators. You will have to abide by all the rules of licensing, including the payment of royalties for plants that you propagate for your use.

Q. What if I am a grower who simply wants plants for production, but I am not interested in propagation, can I get plants?

A. Yes, but you will have to purchase them from a licensed propagator. You should still contact GSDC and they will provide you with a list of those individuals that have a license for a particular blueberry variety. Be sure and specify that you simply want a list of people that have the new variety for sale. There is no paper work to fill out for this.

Q. Are plants available through UGA.

A. No. We do not have plants or cuttings for distribution. GSDC handles all of this for new varieties. So, if you contact us at UGA, we will simply refer you to GSDC.

Q. What is a plant protected or patented variety?

A. This means that the new variety can only be propagated under license agreements described above. Even if you want to propagate plants for your own use, you will need to obtain a license to do so. You may purchase and plant patented varieties without a license. You simply cannot propagate them.

Q. Why does UGA now charge royalties for their varieties?

A. Plant patents are being used extensively throughout the U.S. and the world now for blueberries and many other crops. To this end, UGA now patents their plant material to generate royalties for the research program, and to make sure users around the world pay a portion for their usage of our varieties?

Q. What are the royalties used for?

A. UGARF collects royalties from most new crop varieties (blueberries, peanuts, turfgrass, etc.) developed at UGA and pools them to provide funds for research programs that have the sole purpose of generating new cultivars at UGA. So, basically, the royalties are reinvested into the breeding programs. Breeders also receive a share of the money, as the new cultivar is their “intellectual property”. This procedure is also used for inventions created at UGA and other intellectual property. The idea is to keep UGA competitive in attracting the best scientists in the world, and to keep research dollars coming to the breeding programs so that cultivar development can continue.

Q. Who should I contact for information on the new varieties?

A. If you want variety performance information, description of the variety, or need information on production of a variety contact Dr. Scott NeSmith at UGA. He is located at 1109 Experiment Street, Griffin, GA 30223. The phone number is 770-228-7358. If you want information on obtaining plants of new releases or license, as discussed before, contact Dr. James Sutton, Georgia Seed Development Commission, 2420 South Milledge Ave, Athens, GA 30605. His phone is 706-542-5640. Finally, if you have questions about license agreements and plant patenting, contact Dr. John Ingle at University of Georgia Research Foundation, Inc, Boyd Graduate Research Center, Athens, GA 30602-7411. His phone is 706-542-5942.

Pre-Plant Considerations for Fumigation and Bed-Making

E. Barclay Poling
NC State University

Steps in scheduling late summer soil fumigation

1. Decide which fumigant you will be using. Telone C-35, stand-alone Chloropicrin, Metam-Na and Metam-Na + chloropicrin combination products have a minimum of 21 days for plant-

back compared to 14 days for methyl bromide + chloropicrin, 67% + 33%. In seasons of Tropical Storms or Hurricanes, such as *Floyd* in September 1999, fumigants with no more than a 2-week waiting period are essential to “making your planting dates.” The use of an alternative in one of these seasons with a more extended plant-back could delay fall planting past an optimum window and lead to yield reduction in the range of 20% or more. This is one of the main reasons most commercial growers in the Mid-South do not use alternative fumigants requiring 21-days for plant-back compared to 14-days for methyl bromide + chloropicrin, 67% + 33%.

2. Next, decide your optimum planting window. This window primarily varies with location and variety, and to a lesser extent year to year seasonal effects. In other words, there is a relatively narrow planting window for each variety for your location. For example, in the upper piedmont North Carolina area of Winston-Salem, the optimum planting window is around 25-Sept every year.

3. You are now ready to develop your soil fumigation schedule (this schedule assumes methyl bromide + chloropicrin as the fumigant):

Example Schedule, Winston-Salem, NC

Early to mid-August – whenever there is adequate soil moisture, begin soil preparations in anticipation of bed-making and fumigation towards the end of August. In an unusually dry July/early August, you may be forced to overhead irrigate to get the land ready for chisel plowing, and possibly sub-soiling. Sub-soiling is needed every few years on heavy soils. This needs to be done in N-S, and E-W (both directions). Sub-soiling needs to be done deeply to loosen the soil and break up the plow layer (at 10-12 in.) Breaking up this layer will require setting the draft control so the V-ripper doesn’t come up easily when it hits the hard spots. This operation requires extra hp! Be sure to incorporate your lime at this juncture (ideally the lime should be spread in June, just after the plastic is pulled and the beds are knocked down).

Third week of August - make broadcast application of N-P-K, and then incorporate with disk - this prevents nitrogen loss. The disking is to a depth of 6-inches and should get the soil “fluffy” (breaking up clods). Don’t use

equipment that will compact the soil (a rotary hoe or rototiller may cause compaction).

Fourth week of August - pull beds, fumigate with methyl bromide + chloropicrin and lay plastic and drip tape. Also, stick tips (if you are rooting your own plugs). This is also the time to seed annual ryegrass.

Third week of September - set your Sweet Charlies first (we like to set these 5 days ahead of Chandler). *Always try to allow 3 weeks from fumigation to planting*, even though methyl bromide is a 2-week plant-back material. This extra week allowance is a “cushion” for possible weather delays that may occur. Likewise, for a 21-day plant-back fumigant, you really need to allow a one month waiting period from fumigation to planting (thus, fumigation with Telone C-35 should be done in the Third Week of August for a Third Week of September planting area).

Fourth week of September - transplant Chandler (need 4 workers for water wheel transplanting of plugs and 10-12 workers to set an acre of fresh dugs in 45 minutes or less)

Special bed-making, fumigation and plastic mulch notes:

1. Soil temperature. The air temperature should be at least 50°F.

2. Soil tilth and condition. The soil should be well worked, free from plant debris and have adequate moisture (for weed seed germination). Most problems associate with poor strawberry plasticulture crops are due to poor soil and bed preparation for fumigation and bed-making. The soil needs to be free of clods, stones, and undecomposed plant residue. Also, sharp stones and sticks will puncture the mulch film and allow the fumigant to escape. If the summer cover crop is not plowed down early enough, you will have a plant residue problem and this will greatly reduce the effectiveness of the fumigant (these residues will serve to trap the fumigant).

3. Soil moisture. Having the proper soil moisture is of critical importance for bed-making and fumigation operations. In order to have good soil moisture for forming the beds, it is frequently necessary to wet up the sprinkler irrigation

system and apply approximately ½ inch one to two days in advance of bed-making and fumigation. If both weather and soil are warm, it should be safe following fumigation with 67% methyl bromide + 33 % chloropicrin (at recommended rates) to transplant in 14 days. Never plant earlier than 14 days with this formulation of methyl bromide (67% methyl bromide + 33 % chloropicrin).

4. Plasticulture beds and bed-making. Do not use a vegetable bed-maker! Stick with the bed-making equipment that is specifically designed for higher strawberry plasticulture beds (Reddick and Kennco are two of the leading suppliers). The 10-inch high plastic mulch beds are typically 32 inches wide at the base, and 30 inches wide on top. Beds are slightly crowned so water will run off and not rest on the plastic (a bed with a 30 inch top should slope from the center to the edge with a drop of 1.25 inches). With lower bed height, the long fruit trusses of Chandler or Camarosa come in direct contact with the soil in the row aisles. Thus, it becomes necessary to apply straw mulch to the aisles to keep the berries clean -- this is not necessary with 10-inch high beds. Bed centers are usually 5 feet. Most machines have some fine points which make them worth your time to investigate these differences. Almost all of the machines sold will form the bed, fumigate, and lay plastic and drip tape all in one operation. In general, the single-row bed-making and plastic-laying machines are appropriate for most strawberry operations.

5. Pre-bedding? Be sure that enough soil is pulled up so that the bed has good, sharp corners (it is not usually possible to get these sharp corners on clay soils). You may find it beneficial to pre-bed the rows to make sure that enough soil will be pulled up for the bed-shaper – the same plows used for making tobacco beds work nicely for strawberry pre-bedding.

6. Disking ahead of fumigation? A real good idea is to disk the soil just ahead of fumigation. Some growers will lightly disk an acre, and then

fumigate it immediately. If you disk all of your plasticulture acreage early on a hot sunny day, chances are that it will be too dry for fumigation and bed-making. Leave that moisture trapped beneath the soil's upper crust until you need it.

7. Red-clay. Some of the low organic matter, red clay soils are aptly described as “dinner-time soils” – they can be too wet to fumigate before lunch, and too dry after lunch to make a good bed where the shoulders do not begin to crack and come apart. The real difficulty with red clay is getting this type of soil properly conditioned for good fumigation and bed-making. Compaction and clods are the net result of working the land when it is too wet. Thus, for ‘red clay’ plasticulture growers there can be some very important advantages to owning your own fumigation rig as far as being able to schedule fumigation operations when the land is ready (which is not necessarily the case when the custom fumigator is ready to come to your farm).

8. Plastic mulch. Embossed 1 – 1.25 mil black plastic mulch film is recommended. For 5-foot row centers there are 8,712 linear feet of row per acre, so you will need about 3.5 rolls (2,4000 ft) of plastic mulch per acre. For 6-foot centers, three rolls of plastic mulch will be required per acre. It is important that the plastic fit tightly on the bed and that the edge of the plastic, or the tuck, be held firmly in the soil. These measures reduce the chance of wind getting under the plastic and causing it to blow off or float up and down, which injures plants. An excellent strawberry bed has the plastic mulch in direct contact with the soil beneath – you get this by going to these extra pains. If there are air pockets beneath the plastic, plant growth will be slow in the fall and winter (heat from the black plastic will not be conducted into the soil if there are air pockets – in fact, the black plastic will have a cooling effect if it is not in good contact with the soil beneath).

9. Drip tubing installation. Install drip tubing with the orifices facing upwards. The tubing is typically buried 1-2 inches deep in the bed

center. During installation several workers should be watching to insure that the tubing maintains its orifice-upwards orientation, to assist if the tubing becomes tangled in the injector, and to signal when the drip tape reel is empty. Tubing ends should be closed off by kinking or knotting, until the tubes are hooked up to the system. Generally, growers do not use the drip system until late winter/early spring, and fall irrigation is applied by overhead sprinklers.

10. Cover crops on sloping terrain. As soon as the land is fumigated and mulched, it is often a good idea to broadcast approximately 50 lbs per acre of annual ryegrass over the entire field. Annual ryegrass can be spread the same day you finish fumigating. Ryegrass will reduce soil washing in the aisles after heavy rains or irrigation for plant establishment (fresh dugs) on sloping terrain. There are chemical controls for killing the annual ryegrass in late winter before it grows above the plastic mulched beds. The annual ryegrass can provide an inexpensive alternative to applying wheat straw to the aisles in the spring, if it is not killed prematurely. It is too late to dress up the ends of the fumigated rows once you have applied the ryegrass. It is vital to dress the land immediately after fumigating, so that surface water can flow easily out of the rows. It is much more difficult to deal with surface drainage problems once the ryegrass is established. Obviously, you do not wish to apply any pre-emergent herbicide to the aisles if you decide to grow a "living mulch" for the fall and winter season. In fact, very few herbicides are labeled for strawberry plasticulture, and you should check with the Cooperative Extension Service or your consultant if you have questions about available herbicides, rates, and timing of application.

11. Herbicides. For information on weed control in the aisles see your state's Ag-Chem Manual. Never apply *Roundup* to the tops of the plastic mulch bed before planting – the residue left by *Roundup* on the film will severely injure/kill strawberry transplants.

12. *Punch holes.* An additional precaution to reduce the likelihood of methyl bromide injury to the strawberry transplant would be *to cut or punch plant holes through the plastic mulch a day or two prior to planting.* NEVER SEED ANNUAL RYEGRASS AFTER HOLES HAVE BEEN PUNCHED!

Preplant Strawberry Meeting Schedule (Summer 2003) - updated 6/26/03

1) July 9 - Alamance, Rockingham, Randolph, Guilford Cos. (meeting in Burlington) - Rett Davis, Burlington 336-570-6740, rett_davis@ncsu.edu (6pm start at Alamance Co. Office, 209-C N. Graham, Hopedale Rd, Burlington). Directions: <http://www.ces.ncsu.edu/alamance>

2) July 14 - Pasquotank Co and surrounding NC counties as well as Suffolk and VA Beach growers (meeting in Elizabeth City, Agriculture Building, 1209 McPherson St., Elizabeth City, NC) - Tom Campbell, 252-338-3954, Thomas_Campbell@ncsu.edu, (6pm start). Directions: <http://www.ces.ncsu.edu/pasquotank>

3) July 15 - Columbus/Robeson/Brunswick (Whiteville) - Milton Parker, 910-640-6606, Milton_Parker@ncsu.edu (6 pm start). Directions: <http://www.ces.ncsu.edu/columbus>

4) July 22 - Little Rock AR, Arkansas Strawberry Growers Assn., Keith Striegler, U of A, 479-575-2790 and Jim Goodson, Pres., Goodson Berry Farm & Supply, 501-868-5974 (start 8:30 am - end around 2:30 pm). Directions: Farm Bureau Conference Room (lower level), 1500 Tower Building, 323 Center Street, Little Rock, Arkansas

5) July 23 - Harnett/Johnston Cos (Lillington) - Gary Pierce (910-893-7533, gary_pierce@ncsu.edu) and Tiffany Harrelson (919-989-5380, tiffany_harrelson@ncsu.edu) (6 pm start). Directions: <http://www.ces.ncsu.edu/harnett>

6) July 29 - Sandhills Counties (Carthage) - Eric Honeycutt (910-947-3188, eric_honeycutt@ncsu.edu), Roger Galloway , 910-576-6011, roger_galloway@ncsu.edu (6 pm start, County Extension Office). Directions:<http://www.ces.ncsu.edu/moore>

7) July 31 - Cunningham Research and Extension Center, 200 Cunningham Road - phone at Cunningham R&E Center is 252-527-3579 (Kinston) - Bill Jester (252-526-4445, bill_jester@ncsu.edu) and Jeff Morton (910-455-5873, jeff_morton@ncsu.edu) (time 6pm start). <http://www.ncagr.com/Research/lcptrs.htm>

8) August 5 - Orangeburg, SC - Powell Smith, Ph.D, County Extension Agent Lexington County, SC, 605 W. Main St. Ste. 109 Lexington, SC 29072 USA Phone: 803-

359-8515 FAX: 803-359-4245 jpsmith@CLEMSON.EDU (time, location TBA)

9) August 7 - W. Piedmont Counties (Winston-Salem) Mark Tucker, Forsyth Co. Ag Agent (336-767-8213, mark_tucker@ncsu.edu); Note: this meeting not fully confirmed with participating counties; location is likely to be Forsyth Co. Ag Center. Directions: <http://www.ces.ncsu.edu/forsyth>

10) August 12 - Person, Granville and Upper Piedmont Cos. (Roxboro) - Carl Cantaluppi, 919-603-1350, carl_cantaluppi@ncsu.edu Times: Meeting at 3:30, Supper at 5:30, Location: Person County Extension Center, 304 S. Morgan St. Roxboro, NC. Directions: <http://www.ces.ncsu.edu/person>

11) August 13 - Wilson, Nash, Franklin and Edgecombe (Wilson) - Billy Little (257-237-0111, billy_little@ncsu.edu), Mike Wilder (252-459-9810, mike_wilder@ncsu.edu), Charles Mitchell (919-496-3344, charles_mitchell@ncsu.edu) and Joe Dickens (252-641-7815, joe_dickens@ncsu.edu) (5:30 pm start; Location: Wilson Co. Agricultural Center, 1806 Goldsboro, St., Wilson. Directions: <http://www.ces.ncsu.edu/wilson>

12) August 14 Duplin, Sampson (site and time TBA) Whit Jones (910-296-2143, whit_jones@ncsu.edu) Allan Thornton (910-592-7161, allan_thornton@ncsu.edu)

Virus Indexed Small Fruit from NCSU now Available at Nurseries

Gina Fernandez and Zvezdana Pesic VanEsbroeck, NC-State University and Myron Fountain, NC Crop Improvement Association

The North Carolina Crop Improvement Association operates a certification program for many crops including strawberries and sweet potatoes. In the past year it has established a certification program with brambles. Currently there are five strawberry and one bramble nurseries that sell certified plants. Virus indexed plants are produced by the NCSU Micro-propagation Unit (Dr. Zvezdana Pesic-VanEsbroeck, 919-515-7781) and are sold by the NC Foundation Seed Producers, Inc (Dr. Myron Fountain, 919-513-3444) to certified nurseries. Here is a list of nurseries that are certified by the NC Crop Improvement Association:

STRAWBERRIES:

B & H Nursery (Jeff Hartzog, Keith Barlow),
298 Peak Creek Church Rd., Laurel Springs, NC
28644, phone: 336-982-8155 or 336-982-9585,
e-mail: jdhfarmer@hotmail.com.

McNeill Farms (Steve McNeill), 1621 Kentyre
Farm Rd, Sanford NC 27330 Phone and fax: 919-
499-9706, cell: 919775-9428, email:
skmcneill@alltel.com.

Lewis Nursery and Farms
(Cal Lewis, Sam Harrell), 3500 NC Hwy 133,
Rocky Point, NC 28457, phone: 910-675-
2394, fax: 910-602-3106, e-mail:
lnfcss@bizec.rr.com.

McConnell Farms
Danny McConnell 117 Old Dana Rd.,
Hendersonville, NC 28792, phone and fax: 828-
692-2819, email: mccconnell@brinet.com.

Shingleton Farms
Tommy Shingleton P.O. Box 357, Stantonsburg,
NC 27883, phone and fax: 252-238-2155, cell:
252-236-5187, e-mail:
T.shingleton@cocentral.com.

BLACKBERRIES:

Jones Farm NC
Barbara Jones, 7094 Honeysuckle Ln, Bailey,
NC 27807 phone: 252 235 3248, fax: 252 235
0155, cell: 252 399 9844 e-
mail: jonesfamsnc@aol.com.

Bramble Chores

Summer Bramble Chores

Gina Fernandez
NC State University

Here is a brief summary of chores for the next
few months for the harvest season. If you have
any questions give me a call.

PRUNING/TRAINING

Prune out spent floricanes after they have
produced fruit, do not thin out primocanes until
mid-to late winter. Train primocanes to trellis to
minimize interference with harvest. Shift trellises
or V trellises make this relatively easy. Contact
your bramble specialists for more information on
these trellis systems.

WEEDS

Weed growth can be very vigorous at the same
time as the bramble crop peaks. Weed control is
best done earlier in the season before harvest
commences. Please note that glyphosphate
application at this time can cause serious injury
to the crop. See article at
[http://www.smallfruits.org/Recent/AvoidGlypho
sate.htm](http://www.smallfruits.org/Recent/AvoidGlyphosate.htm) for details.

INSECT AND DISEASE CONTROL

See bramble disease control recommendations at
[http://www.smallfruits.org/GrowerInfo/brgro.ht
m](http://www.smallfruits.org/GrowerInfo/brgro.htm) and your states Ag. Chemical
recommendations.

IRRIGATION

-Bramble plants need about 1"-2" water/week,
and this amount is especially critical during
harvest. Don't be complacent and think the plant
can get by because of all the rain we have gotten
this spring, keep them watered.
Consider installing an overhead system for
evaporative cooling. We had very good luck
preventing sunscald in our research plots using
this method once or twice a day from 10 am to 3
pm for short periods of time (approx. 15
minutes). Do not use evaporative cooling in the
late afternoon. You need to have the canopy dry
going into the night to minimize disease
problems that may arise due to wet canopy
during the night. Contact me for details.

TISSUE SAMPLING

-Take leaf samples after harvest and send to a
clinic for nutrient analysis. For information on
how to sample and where to send samples in NC
go to:
<http://www.ncagr.com/agronomi/pwshome.htm>

HARVEST AND MARKETING

- Service and clean coolers.
- Make sure you have enough containers for your fruit
- Prepare advertising and signage for your stand
- Contact buyers to finalize orders
- Hire pickers
- Prepare signage for field orientation, it is easier to tell pickers where to go if rows are numbered.
- Keep harvested fruit in shade and move into coolers as soon as possible to lengthen the shelf life of the fruit.
- Do you see white spots on your blackberry fruit? It could be stink bug damage or sunscald. See article at http://www.smallfruits.org/Recent/whitespots_bramble.htm

FALL PLANTING

Order plants now for fall planting see a list of nurseries at:
<http://www.smallfruits.org/GrowerInfo/brgro.htm>

OTHER

-Attend the NCSU Specialty Crops Field Day, July 17, 2003 to see the bramble research trials in eastern NC.
[http://www.cals.ncsu.edu/specialty_crops/.](http://www.cals.ncsu.edu/specialty_crops/)

Tom Monaco is the New Chair of the Southern Region Small Fruit Consortium

Tom Monaco former Head of the Department of Horticultural Science at NC State University became Chair of the Southern Region Small Fruit Consortium effective June 1, 2003. He succeeds Jim Ballington who served as Chair for the past few years. Jim wanted to return full time to his blueberry, strawberry and bramble breeding programs for some time and got the opportunity when Monaco was selected to serve as Chair.

Monaco's goals for the consortium are to maintain the excellent program Jim Ballington has established for the regional effort and build

on it. Jim was successful in recruiting Tennessee as member of the consortium in 2002 to expand the project to a four state program which includes North Carolina, South Carolina and Georgia in addition to Tennessee. Attempts will be made this year to recruit other states in the southern region

Another goal is to expand the grant program by seeking funding from other sources in addition to the member state dues. The call for proposals to be funded in 2004, which will be issued this fall, will include research and extension projects. A separate fund has been established for extension proposals and guidelines for submitting extension proposals will be issued at the same time the RFP for research funding is issued.

Updating the SRSFC web site is another objective and Brenda Willis, web master, for the site has been busy making the changes. We need continuous input by our regional experts and that will be solicited more aggressively so the site will have more current information. Please visit the site and provide us input on how it can be improved.

From the Plant Problem Clinics...

Compiled by Meg R. Williamson, Clemson University

Shown below is a summary of diagnoses on small fruit samples received between January and June, 2003. Data is from the clinics in Georgia (GA), North Carolina (NC) South Carolina (SC), and Tennessee (TN)

HOST	DIAGNOSIS	CAUSAL ORGANISM	NUMBER OF OCCURENCES			
			GA	NC	SC	TN
Blackberry	Anthracnose	<i>Glomerella</i> sp.		1		
	Anthracnose	<i>Elsinoe veneta</i>				1
	Cane dieback	<i>Gloeosporim</i> sp.	1			
	Leaf spots	<i>Cercospora, Phoma, Septoria</i>	1 of each			
	Root rot	<i>Pythium</i> sp.	1			
	Rust, cane and leaf virus	<i>Kuehneola uredinis</i> undetermined				1 4
	Black raspberry	orange rust	<i>Gymnoconia peckiana</i>			1
Blueberry	Blossom blight	<i>Botrytis</i> sp.	1			
	Canker	<i>Botrytis</i> sp.	1			
	Canker	<i>Fusicoccum</i> sp.	1			
	Root rot	<i>Pythium</i> sp.	2			
	Stem blight	<i>Botryosphaeria dothidea</i>		1		
Currant	Rust	<i>Puccinia</i> sp.			1	
Fig	Nematode, root knot	<i>Meloidogyne</i> sp.	1			
	Root rot	<i>Armillaria</i> sp.	1			
Grape	Anthracnose	<i>Elsinoe ampelina</i>				1
	Black rot	<i>Guignardia bidwellii</i>				3
	Coulure (excessive fruit drop)				1	
	Ring nematode	<i>Criconemella</i> sp.			1	
Muscadine	Black rot	<i>Guignardia bidwellii</i>			1	
	Powdery mildew	<i>Oidium</i> sp.	1			
Raspberry	Leaf spot	<i>Phyllosticta</i> sp.	1			
	Root rot	<i>Rhizoctonia</i> sp.	1			
Strawberry	Angular leaf spot	<i>Xanthomonas fragariae</i>		15	1	
	Angular leaf spot	<i>Xanthomonas</i> sp.		1		
	Anthracnose	<i>Colletotrichum acutatum</i>		14		
	Anthracnose fruit rot	<i>Colletotrichum acutatum</i>		3		
	Anthracnose	<i>Colletotrichum gloeosporoides</i>		1		
	Anthracnose	<i>Colletotrichum</i> sp.	3	2		4
	Black spot	<i>Alternaria</i> sp.		1		
	Botrytis crown rot	<i>Botrytis cinerea</i>		9		
	Botrytis dieback	<i>Botrytis cinerea</i>		1		
	Gray mold	<i>Botrytis cinerea</i>		4	1	
	Cold damage/environmental		1		1	
	Common leaf spot	<i>Mycosphaerella fragariae</i>		1		
	Leaf blotch	<i>Gnomonia</i> sp.		1	2	
	Phomopsis leaf blight	<i>Phomopsis</i> sp.	2	1		
	Phytophthora crown rot	<i>Phytophthora cactorum</i>		3		
	Phytophthora crown/root rot	<i>Phytophthora</i> sp.		2	2	
	Phytophthora root rot	<i>Phytophthora cactorum</i>		1		
	Phytophthora root rot	<i>Phytophthora</i> sp.	1			
	Rhizoctonia blight	<i>Rhizoctonia solani</i>		1		
	Rhizoctonia crown rot	<i>Rhizoctonia solani</i>		1		
	Root rot	<i>Pythium/Phytophthora</i> sp.	1			
	Root rot	<i>Pythium</i> sp.	3			
	Root rot	<i>Rhizoctonia</i> sp.				1
	Damping off	<i>Rhizoctonia</i> sp.		1		
	Sclerotinia crown rot	<i>Sclerotinia sclerotiorum</i>			1	
	Stem end rot	<i>Gnomonia comari</i>			1	

Focus

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Small Fruit News

Volume 3, No. 3

July, 2003

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