



The University of Georgia

College of Agricultural and Environmental Sciences
Department of Horticulture

Rob's copy
Alisa has
the orig.

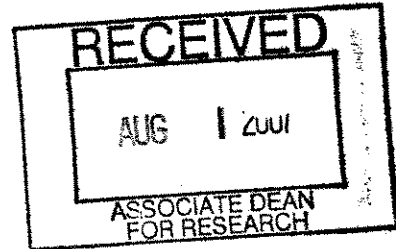
MEMO

Date: 31 July 2007

To: Bob Shulstad

From: D. Bailey *Doug Bailey*

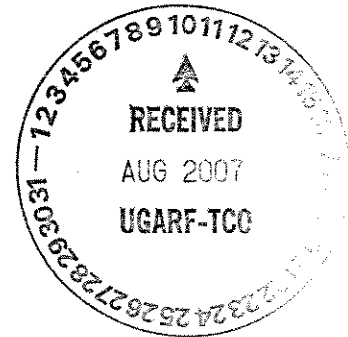
Re: Blueberry Release



The Ornamentals Release Committee (A. Armitage, M. Dirr, D. Knauff, J. Midcap, C. Robacker, J. Ruter and P. Thomas) has reviewed the release request for *Vaccinium sp.* TH-682 and approves the release. The uniqueness of the cultivar was well documented.

Attached please find the completed application for approval of associate cultivars form. Please let me know if any further information is required to process this application.

c. Rob Fincher
Scott NeSmith



APPLICATION FOR APPROVAL OF ASSOCIATE CULTIVAR
D. Scott NeSmith, Dept. of Horticulture, Georgia Station, Griffin, GA 30223

1. **Crop:** Southern Highbush Blueberry (*Vaccinium sp.*)
2. **Experimental no. or name:** TH-682
3. **Pedigree and history:** TH-682 was selected in 2001 at the Georgia Experiment Station in Griffin, Ga by Dr. Scott NeSmith. It originated from a cross of MS-122 X MS-6 made by Dr. Mark Ehlenfeldt USDA-ARS, Chatsworth, NJ. A pedigree of the selection is depicted in Figure 1. The selection is actually a hybrid containing mostly *V. corymbosum* and a small amount of *V. darrowi*. The selection has been tested in plantings at Alapaha and Griffin, Ga. since 2002. The selection was sent to McCorkle's Nursery for testing in 2006.
4. **Description:** TH-682 is a southern highbush blueberry being released for the homeowner market, exclusively with McCorkle's Nursery, a large wholesale nursery supplier from Dearing, GA. The selection ripens early compared to rabbiteye varieties generally available to homeowners in the Southeast through large commercial outlets such as Home Depot. TH-682 produces an abundance of attractive, light blue fruit (see photo) for the homeowner. Also, fruit are generally large, and have good flavor. The plant of TH-682 is vigorous, and attractive fall color has been observed on leaves (see photo). The selection is estimated to have a chilling requirement of 500 to 550 hours below 45 F. It is estimated that TH-682 will perform fairly well in USDA hardiness zones 6a thru 9a. Data describing more details follow in Tables.
5. **Station(s) where developed:** TH-682 was developed at both the Georgia Station and the Coastal Plain Experiment Station.
6. **Participating scientists:** Scientists participating in the development of this blueberry cultivar include D. Scott NeSmith, UGA and Mark Ehlenfeldt, USDA-ARS, Center for Blueberry & Cranberry Research, Chatsworth, NJ.
7. **In what respect is the new cultivar superior to the cultivar now in use?:**

McCorkle's nursery has been working with the UGA Blueberry Breeding Program in trying to come up with an exclusive homeowner blueberry for them to market. This is a very large wholesale nursery located in Dearing, GA. They sell plants to large commercial retail outlets such as Home Depot and Lowe's. They have extensive marketing experience, and have several UGA Ornamental releases in production. McCorkle's has found TH-682 to be desirable for their production operation and marketing plan (see attached letter). Particularly they note that excellent fruit color, plant vigor, and fall color as desirable. They see the selection as having considerable utilization for a homeowner blueberry.

Data from Georgia has indicated that TH-682 is a very nice selection with desirable attributes for a homeowner type blueberry. One of the more outstanding characteristics of TH-682 is its very light blue fruit (Fig. 2 and 3). Table 1 lists average berry and plant attributes for TH-682 compared to two early rabbiteye cultivars (Climax and Premier) and one southern highbush standard cultivar (O'Neal) grown under field conditions at Alapaha, Ga. Plants were established in 2002, and data are averages over the years 2004 thru 2006. TH-682's most prominent features have been early ripening, large berry size and outstanding light blue fruit color.

Table 2 presents 3-year average data for plants grown in Griffin, Ga. In Griffin, TH-682 had better berry color than all varieties, and had good plant vigor. Additionally, berry size was good for TH-682 in Griffin, and average crop load was very good.





The large berry size and light blue fruit make the selection TH-682 desirable for the homeowner consumer. In general, large retail chains such as Home Depot carry only early rabbiteye varieties like Premier and Climax, or the older southern highbush O'Neal. TH-682 has been more vigorous than O'Neal at both the Griffin and Alapaha locations, and has produced much larger berries that have a better color rating. Also, O'Neal typically blooms too early for most homeowners, subjecting it to spring freezes during flowering. TH-682 on the other hand had flowering dates 10 to 14 days later than O'Neal. In fact, TH-682 typically flowered with, or later than, the two rabbiteye cultivars. However, TH-682 ripened considerably earlier than the early rabbiteye cultivars. The period of ripening of TH-682 tends to be too protracted to be suitable for commercial usage. However, this trait would be desirable for homeowners, as they can harvest berries over a longer period of time. Thus, the expectation is that TH-682 will provide homeowners early, high quality blueberries.

Two final attributes that TH-682 has that should appeal to homeowners is attractive flowers and fall leaf color. Fig. 4 shows plants of TH-682 during flowering in Griffin. Fig. 5 shows the same plants with some fall coloring in leaves.

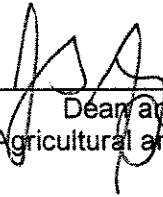
8. **Method of propagation:** Propagation of TH-682 has been easily accomplished from softwood cuttings.
9. **Amount of breeder seed stocks available (if applicable):** NA
10. **Amount of foundation seed stocks available if applicable:** NA

11. **Amount of cutting or bud material available for vegetatively propagated material for nursery distribution (if applicable):** McCorkle's nursery has more than 100 2-year old plants for propagation stock. Also, field grown plants are available at Griffin for additional stock material.
12. **Is there likely to be unusual difficulty in the production of any class of seed stocks?** No.
13. **Three suggested names for the cultivar:** Proposed name: 1) *Suzi-Q*
14. **Name approved by Ornamentals Release Committee:**
15. **Form of intellectual property protection:** Selection should be patented.
16. **Is a royalty assessment recommended?:** Yes No

RECOMMENDED BY:

- A.  7/16/07 B.  7/31/07
Originating Scientist Department Head
- C.  7/31/07 D.  8/8/07
Chairperson, GAES Ornamentals Associate Dean for Research
Release Committee
- E. _____ F. _____

APPROVED:


Dean and Director
College of Agricultural and Environmental Sciences

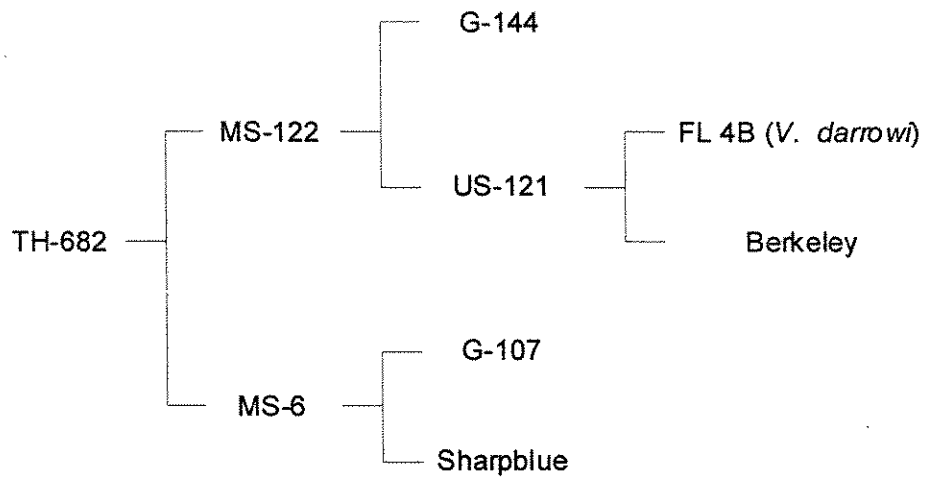


Figure 1. Pedigree of TH-682 southern highbush blueberry.

Table 1. Average ratings of some fruit and plant characteristics of TH-682 and two rabbiteye (Climax and Premier) and one southern highbush (O'Neal) standard cultivars over a 3 year period (2004-2006) at Alapaha, Ga. Rating scales are based on a 1 to 10 score, with 1 being the least desirable and 10 being the most desirable. A value of 6-7 is generally considered to be the minimum acceptable rating for a commercial cultivar.

Berry and plant attribute	TH-682	Climax	Premier	O'Neal
Berry size	8.3 ± 0.4	6.7 ± 0.3	7.7 ± 0.4	6.8 ± 0.6
Berry scar	7.8 ± 0.6	8.3 ± 0.2	8.2 ± 0.2	7.0 ± 0.1
Berry color	9.5 ± 0.3	7.5 ± 0.3	8.0 ± 0.3	7.2 ± 0.2
Berry firmness	7.7 ± 0.2	8.3 ± 0.2	6.8 ± 0.1	6.7 ± 0.2
Berry Flavor	7.7 ± 0.2	7.8 ± 0.2	8.0 ± 0.1	7.7 ± 0.2
Crop load	4.8 ± 1.2	4.3 ± 1.6	6.0 ± 0.8	4.7 ± 1.3
Plant vigor ^{z/}	7.0 ± 0.1	8.5 ± 0.8	9.0 ± 0.1	6.0 ± 0.5
Date of 50% flowering	March 21	March 10	March 18	March 5
Date of 50% ripening	May 24	June 3	June 6	May 15

^{z/} Plant vigor is a relative scale (1 to 10) that considers overall robustness and durability of the plant itself (wood and vegetation). Vigor does not reflect berry quality, nor is it necessarily related to yield, especially annual yield.

Table 2. Average ratings of some fruit and plant characteristics of TH-682 and two rabbiteye (Climax and Premier) and one southern highbush (O'Neal) standard cultivars over a 3 year period (2004-2006) at Griffin, Ga. Rating scales are based on a 1 to 10 score, with 1 being the least desirable and 10 being the most desirable. A value of 6-7 is generally considered to be the minimum acceptable rating for a commercial cultivar.

Berry and plant attribute	TH-682	Climax	Premier	O'Neal
Berry size	8.1 ± 0.4	7.4 ± 0.3	8.1 ± 0.4	7.2 ± 0.7
Berry scar	7.0 ± 0.1	8.2 ± 0.1	7.5 ± 0.5	7.0 ± 0.1
Berry color	9.0 ± 0.3	7.9 ± 0.1	7.5 ± 0.5	6.9 ± 0.1
Berry firmness	7.3 ± 0.2	8.3 ± 0.1	6.9 ± 0.2	6.9 ± 0.1
Berry Flavor	7.7 ± 0.2	7.9 ± 0.1	8.0 ± 0.1	7.9 ± 0.1
Crop load	8.0 ± 0.3	7.3 ± 0.3	3.5 ± 1.5	5.5 ± 0.5
Plant vigor ^{z/}	8.3 ± 0.2	7.8 ± 0.1	8.0 ± 0.1	5.5 ± 0.5
Date of 50% flowering	March 28	March 25	March 29	March 18
Date of 50% ripening	June 3	June 15	June 19	May 26

^{z/} Plant vigor is a relative scale (1 to 10) that considers overall robustness and durability of the plant itself (wood and vegetation). Vigor does not reflect berry quality, nor is it necessarily related to yield, especially annual yield.



Figure 2. TH-682 bush with very light blue fruit during early June in Griffin, Ga.

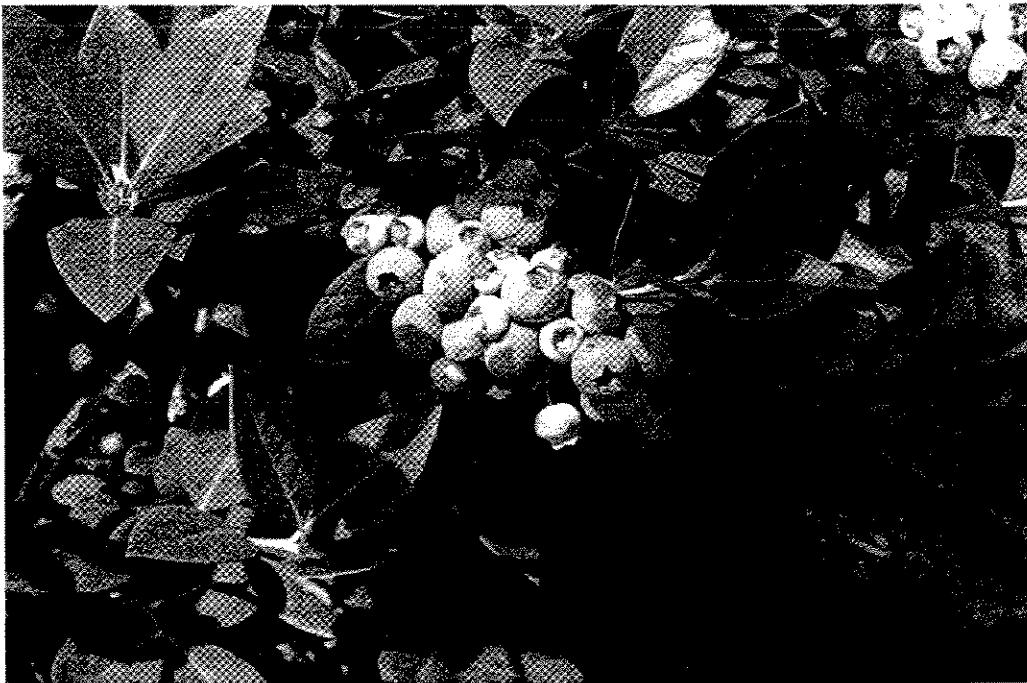


Figure 3. TH-682 close-up of fruit.



Figure 4. TH-682 flowering during late March in Griffin, Ga.



Figure 5. TH-682 Fall color development during late October in Griffin, Ga.



McCorkle

NURSERIES, INC.

July 5th, 2007

Dear Dr. NeSmith,

McCorkle Nurseries would first like to express thanks for the opportunity to evaluate some of your blueberry selections. As you are aware, McCorkle has been trialing a few in an effort to identify selections that exhibit good homeowner appeal as part of an ornamental edible series.

From your data and our own evaluation, we feel that TH-682 will be suitable for the retail garden center and landscape markets. The attractive light blue fruit, and the earliness of ripening should make the selection highly desirable for the homeowners seeking to grow some of their own food while enjoying the ornamental aspects of the plants in their landscape or garden. The presence of some fall leaf color is beneficial too. The ability to self-pollinate is also important when looking at the use these selections may have in urban patio gardening.

We respectfully request that you consider releasing TH- 682 as an Associate Cultivar for exclusive licensing to MNI. We have a several ready made market places in which to introduce this selection, and potential future ones from your breeding program.

We are ready to work with you and UGARF on the introduction of this cultivar if awarded the opportunity to do so. We would be honored to have the opportunity to present our preliminary marketing plan for these plants at an appropriate time.

Sincerely,

Skeetter McCorkle

Growing
Operations and
Customer Service

4904 Luckey's
Bridge Road
Deering, GA 30808
Ph 706-595-9702
Fax 706-595-9678

Marketing and
Sales Management

3535 Roswell Road
Suite 27
Marietta, GA 30062
Ph 770-578-9583
Fax 770-578-9519

toll free
800-572-2874

www.mccorklenurseries.com
"Just what you need... always!"