

APPLICATION FOR RELEASE

APPLICATION FOR RELEASE OF (check one):

XX CULTIVAR

ASSOCIATE CULTIVAR

GERMPLASM

PARENTAL LINE

GENETIC STOCK

1. Crop: Ornamental blueberry hybrid (*Vaccinium* sp.)
2. Experimental no. or name: T-885
3. Pedigree and history: T-885 was selected in 2005 at the Georgia Experiment Station in Griffin, Ga by Dr. Scott NeSmith. It originated from a cross of 'Climax' X US-1056 made by Dr. Mark Ehlenfeldt USDA-ARS, Chatsworth, NJ. 'Climax' is an older standard rabbiteye cultivar (*V. ashei*), while US-1056 is a breeding line with a complex pedigree containing *V. ashei*, *V. constablaei*, *V. corymbosum*, and *V. darrowi*. The selection has been tested in plantings at Alapaha and Griffin, Ga. since 2006.
4. Description of plant material: T-885 is a complex blueberry hybrid, mostly rabbiteye (*V. ashei*), being released as an edible ornamental for the homeowner market. The selection ripens around the time of the early rabbiteye varieties 'Climax' and 'Premier' which are generally available to homeowners in the Southeast through large commercial garden outlets. T-885 produces attractive flowers and an abundance of multi-colored berries as they ripen (Fig. 1 thru Fig. 6). Berries are generally medium size (14 to 16 mm diameter), and progress in color from RHS Yellow-Green 145 C, to RHS Orange-Red 34 C and N34 C, to RHS Red 47 C, to RHS Red-Purple 59 C, to RHS Black 202 A when fully ripe. Fruit are slightly tart when first ripe, and gradually get sweeter as they hang. The plant of T-885 is vigorous, reaching a height of 1.2 m with a canopy width of more than 1 m on 3-year old plants grown in acidic soil (pH < 5.2) with pine bark amendment. The non-glaucous foliage is attractive during the spring and summer months having an upper leaf surface color of RHS Green 137 D and a lower leaf surface color of RHS 138 D on healthy, fully mature leaves (Fig. 4 thru Fig. 6). Fall foliage color is basically nondescript, with complete defoliation usually occurring in early winter. The selection is estimated to have a chilling requirement of 500 to 550 hours below 45 F (based on comparison of flowering dates with those of known standard cultivars).

No notable disease or other pest problems have been noted for T-885 that were not also present on other blueberry varieties and selections in the vicinity of the test plots. For example, in Griffin in 2009, powdery mildew was observed on foliage of T-885 during high rainy periods of late summer, but the disease was prevalent throughout the various blueberry selections in the test. Since T-885 is mostly rabbiteye, it is expected that another rabbiteye cultivar in the vicinity would improve pollination and fruit set since

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rabbiteye blueberries typically do not have a large degree of selfing. While specific containerized growth studies with T-885 have not been conducted, propagation has been easily accomplished with soft wood material. Small 4 to 6 inch rooted cuttings have grown well when moved into 1 gallon production pots of pure pine bark, achieving a 15 to 18 inch plant in 4 to 5 months (Fig. 7).

5. Need for and potential users of plant material: Edible landscape plant material is gaining interest among consumers and home gardeners. Blueberries are of particular interest due to their highly publicized health benefits. Many of the available commercial blueberry varieties do not hold much ornamental appeal. Also, these older commercial varieties have been developed for markets where concentrated ripening and long distant shipping are primary requirements, which are traits not required for home gardeners. We have had contact with several commercial nurseries that have indicated considerable interest in the availability of home-owner type blueberries, particularly those with some novel ornamental appeal. Furthermore, many of the blueberry varieties listed in home-owner nursery catalogs are adapted to more northern climates. Hence, there is an opportunity for new blueberry varieties that can provide attributes for the home gardener and/or landscaper desiring edible ornamentals in the Southeastern US and other regions with similar climates.

6. Justification for release: While T-885 has limited commercial production value, its primary features are unique multi-colored berries and non-glaucous foliage, which make it an attractive plant for ornamental purposes that also has edible fruit. The selection T-885 is a vigorous blueberry plant having fruit that ripen around the time of the older rabbiteye blueberry standards 'Climax' and 'Premier', which are both considered to be vigorous cultivars with early ripening berries. Several photographs attached characterize the plant's ornamental appeal (Fig. 1 thru Fig. 6). It has established well at research field sites in both Alapaha (sandy soils having a pH < 4.9; amended with pine bark) and Griffin, Ga (sandy clay loam soils having a pH < 5.2; amended with pine bark).

Fruit and plant data (2 year average) typically taken for commercial blueberries are listed in Table 1 for T-885 compared to the two early rabbiteye cultivars Climax and Premier grown under field conditions at Alapaha, Ga. Plants were established in Fall 2006, and data are averages for 2008 and 2009. The selection has shown very good plant vigor and a reasonable crop load. Berry size has been similar to 'Climax', but smaller than 'Premier'. The color rating indicates ripe fruit does not have much waxy bloom, which is typically a favorable commercial trait. However, this lack of waxy bloom adds to the ornamental appeal of T-885. Berry flavor of T-885 is good, but not exceptional.

Table 2 presents 2-year average (2008 and 2009) data for T-885, 'Climax', and 'Premier' plants grown in Griffin, Ga since Fall 2006. At this site, T-885 had very good

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plant vigor and a good crop load as compared to the two rabbiteye standards, while ripening time of T-885 tended to be about a week later than the rabbiteye varieties.

7. 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.

8. Location(s) at which plant material was developed: T-885 was developed at both the Georgia Station and the Coastal Plain Experiment Station.

9. Recommended form of intellectual property protection and royalty: Plant should be patented and a per plant sold royalty charged.

Cultivar and associate cultivar applications only provide the following information:

10. Method of propagation: Propagation of T-885 has been easily accomplished from softwood cuttings.

11. Amount of breeder seed stocks available (if applicable): NA

12. Amount of foundation seed stocks available if applicable: NA

13. Amount of cutting or bud material available for vegetatively propagated material for nursery distribution (if applicable): More than 30 one gallon plants available, and an additional 36 rooted cuttings taken in 2009. Plant material (4 year old plants) is available in the field at Griffin and Alapaha for additional cuttings.

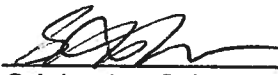
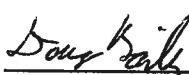
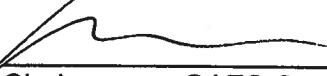

14. Describe any unusual difficulty anticipated in the production of any class of seed stocks:

15. Suggest up to three names for the cultivar, if appropriate: 1) Summer Sunset; 2) Setting Sun; 3) Sundown

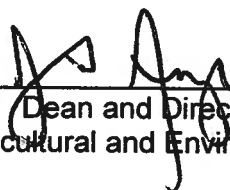
16. Name approved by plant cultivar and germplasm release committee:

13. Three suggested names for the cultivar: Proposed name: 1) **Southern Sunset**
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.		10/26/09	B.		11/2/09
	Originating Scientist			Department Head	
C.		12/4/09	D.		12/08/09
	Chairperson, GAES Ornamentals Release Committee			Associate Dean for Research	
E.	_____	_____	F.	_____	_____

APPROVED:



 Dean and Director
 College of Agricultural and Environmental Sciences

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Table 1. Average fruit and plant ratings of T-885 and two rabbiteye (Climax and Premier) standard cultivars over a 2 year period (2008-2009) 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 for a commercial blueberry variety. Values in rows followed by the same lower case letter are not significantly different.

Berry and plant attribute	T-885	Climax	Premier
Berry size	6.8 b	6.8 b	7.8 a
Berry scar	7.0 b	7.8 a	7.8 a
Berry color	4.5 b	7.0 a	7.8 a
Berry firmness	7.0 ab	7.6 a	6.8 b
Berry Flavor	7.0 a	7.3 a	7.8 a
Crop load	5.0 ab	6.0 a	4.0 b
Plant vigor	8.8 a	6.7 b	9.3 a
Date of 50% flowering	March 23	March 14	March 21
Date of 50% ripening	June 5	June 3	June 3

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Table 2. Average fruit and plant ratings of T-885 and two rabbiteye (Climax and Premier) standard cultivars over a 2 year period (2008-2009) 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 for a commercial blueberry variety. Values in rows followed by the same lower case letter are not significantly different.

Berry and plant attribute	T-885	Climax	Premier
Berry size	6.3 b	6.9 b	7.7 a
Berry scar	7.2 a	7.5 a	7.5 a
Berry color	4.0 b	7.2 a	7.5 a
Berry firmness	6.5 b	8.0 a	6.8 b
Berry Flavor	7.0 a	7.2 a	7.2 a
Crop load	6.0 a	5.5 a	3.5 b
Plant vigor	8.0 a	7.6 ab	7.0 b
Date of 50% flowering	March 28	March 23	March 28
Date of 50% ripening	June 24	June 17	June 16

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Figure 1. TH-885 bushes in Alapaha during June 2008 (2 year plants).

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Figure 2. Three year old plants of ornamental blueberry selection T-885 during fruiting in 2009 at Alapaha (upper photo) and Griffin (lower photo).

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Figure 3. T-885 flowering during late March 2009 in Griffin, Ga.



Figure 4. T-885 fruit during ripening.

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Figure 5. Close-up views of T-885 ornamental fruit during ripening at Alapaha in 2009.

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Figure 6. Additional close-views of T-885 ornamental blueberry fruit during ripening in 2009 in Alapaha (upper photo) and Griffin (lower photo).

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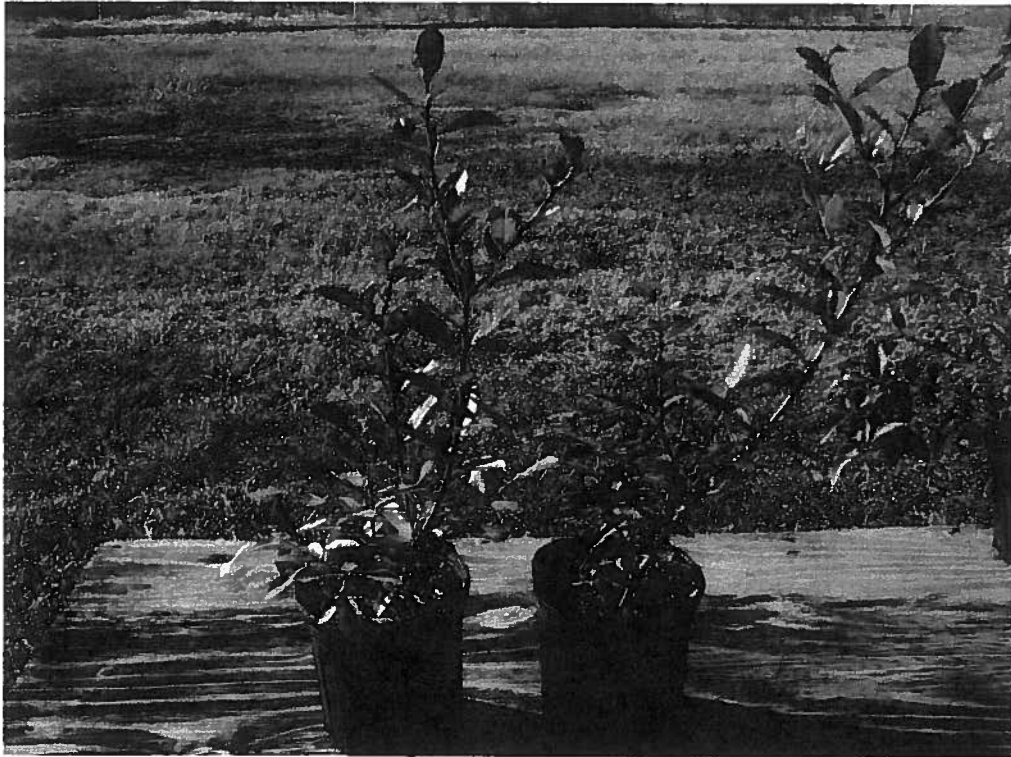


Figure 7. Nursery containers with 5 month old plants of T-885 ornamental blueberry started from a 4 to 6 inch rooted cutting.