



Breeding Project to Obtain Improved Ornamental Sweetpotato Cultivars

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Background:

With the advent of “Blackie” and “Margarite” ornamental sweetpotatoes have become a staple of landscape and container plantings throughout the United States and beyond. The development of new types of ornamental sweetpotatoes is largely dependent on whether or not these and other ornamental sweetpotatoes can be made to flower and set seed.

Purpose of study:

To induce flowering and seed set on ornamental sweetpotato cultivars with desirable characteristics for the nursery and landscape industries and to identify subsequent crosses for commercial potential.

Design of study:

Both grafted and ungrafted sweetpotato plants were used in this study. Grafted plants were produced by introducing a seldom flowering variety to a profusely flowering, robust rootstock. Rootstocks used were *Ipomoea fistulosa* and DW-8. To induce natural cross pollination, pots containing the sweetpotatoes were juxtaposed in random order. After flowering and seed set, seed was collected and labeled from selected plants for subsequent propagation.

Grafted plants include “Blackie,” “Black Heart,” “Tri-color,” “Margarite,” and numbered varieties not yet in the trade, including DW-8, DW-241S, GA-3, GA-10, GA-108, GA-119, GA-142, GA-162, and GA-212. These plants were chosen for the breeding project due to their particular characteristics, which included leaf color/size/configuration, flowering, disease/insect resistance, and growth habit.

Evaluation:

Seeds were collected from most of the lines selected with the exception of “Blackie” and “Margarite.” Even though “Blackie” and “Margarite” were grafted onto flowering rootstocks, flowering did not occur. Collected seeds will be planted and the plants produced evaluated for desired characteristics, including leaf color/size/configuration, flowering, disease/insect resistance, and growth habit.

Significance to the Industry:

The ornamental sweetpotato has become a staple of the landscape industry. It covers vast areas with one plant very quickly, thrives even under harsh conditions, and requires very little, if any, upkeep. With this breeding project Georgia has the potential to furnish our growers with new, very useful series of ornamental sweetpotatoes.