

Production, Maintenance, and Evaluation of Triploid Interspecific Bermudagrass Hybrids for QTL Analysis

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Objectives:

1. Increase the size of the T574 x T89 mapping population by 100 or more triploid interspecific hybrids.
2. Evaluate the hybrids for characteristics important in turf improvement and provide the information to Dr. Paterson for association to the molecular map.

Start Date: 1999

Project Duration: ongoing

Total Funding: \$80,000

Hand pollinations of the *Cynodon transvaalensis*-T574 x *C. dactylon*-T89 cross were made in the spring of 2006. Crosses have been harvested and the products of this cross will be planted in the greenhouse in the spring of 2007.

Hybrids will be identified (using flow cytometry when necessary), transplanted to 5-cm pots, and then single plants will be established in 2m x 2m plots (methyl bromide fumigated soil) in the field in 2007. Plant samples will be provided to A. Paterson for molecular study.

Two replications of the present 94 hybrids used for the molecular map, spaced on 1-meter centers, were established in 2005. Each hybrid was rated for seedhead formation at two dates in May



The products of the cross between *C. tranvaalensis*-T574 and *C. dactylon*-T89 are being propagated and established in field plots on 2-meter by 2-meter centers at the University of Georgia research facilities.



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These hybrids will be rated for characteristics such as leaf texture, density, color, pest resistance(s), heading, green-up when differences are evident. These ratings will be forwarded to A. Paterson, who will relate them to molecular markers.

Summary Points

- Data are being gathered on the first 94 hybrids used to develop a molecular map.
- New crosses have been made to develop additional hybrids for use in the genetic map.