

**MULTI-STATE RESEARCH PROJECT S-009**  
**PLANT GENETIC RESOURCES CONSERVATION AND UTILIZATION**

**Background:** Crop collections of importance to the Southern Region have been supported since 1949 through a joint partnership, designated as Multi-State Research Project S-009, between the USDA, ARS, Plant Genetic Resources Conservation Unit and the Southern State Agricultural Experiment Stations. For over 60 years, the S-009 Project has served as a major component of the National Plant Germplasm System, and its activities have markedly improved crop technology in the Southern Region, the U.S., and abroad, by providing plant genetic resources and associated information to scientists and educators.

**Accomplishments for 2009:**

- A total of 40,451 accessions (18,446 in S-009 region) were distributed in 900 orders to users worldwide in 2009. This is almost 10,000 more accessions worldwide (5,000 more accessions in S-009 region) than were distributed last year.
- For the first time, distributions of Griffin accessions were made to users in all 50 states (including the District of Columbia) and 38 foreign countries.
- The collection totals 89,986 accessions of 1,542 species and 254 genera with 87.7% available for distribution and 96.8% backed up at Ft. Collins, CO.
- Over 700 accessions were added to the collection including a sorghum association panel, sorghum cold tolerant population, switchgrass, pearl millet, finger millet and other crops.
- Currently, 61,436 accessions or 68.3% of the seeded collection have at least one inventory sample stored at -18 C. Seed longevity is improved by storage in -18 C rather than 4 C.
- Germination tests were conducted on 12,196 accessions. Since 2002 (when germination testing began), tests have been conducted on 58,671 accessions (65.2% of collection).
- Genetic diversity in 96 accessions of the sweet sorghum collection was characterized utilizing 95 SSR markers. A real-time (RT) PCR assay was used to assess the entire sweetpotato collection for sweetpotato leaf curl virus. Over 185 warm-season grass clones were screened for maize dwarf mosaic and johnsongrass mosaic virus. A marker was developed using RT-PCR to identify high oleic acid in peanut and 625 peanut accessions, breeding lines, and wild relatives were tested for presence of the marker.
- A plant exploration trip was conducted in northern Florida to collect 46 native populations of switchgrass. Additionally, 94 switchgrass accessions were obtained from New York. These collections increased the genetic variability of the U.S. switchgrass collection, which has been widely requested for use in biofuel research.
- Peanut accessions were characterized for variation in resveratrol (antioxidant) and flavonoid content and oil and fatty acid composition. Accessions of several legume species were characterized for flavonol composition.
- Characterization and evaluation data were taken on over 1,500 vegetable, peanut, legume, warm-season grass, annual clover, and other accessions in the field. Digital images of 600 chile pepper accessions were taken for entry into GRIN. Original passport data was obtained and updated for over 1,000 big bluestem accessions.
- Additional accomplishments are reported in the S-009 annual report and minutes ([www.ars.usda.gov/Main/docs.htm?docid=9592](http://www.ars.usda.gov/Main/docs.htm?docid=9592)).

**Financial Situation:** Through the efforts of Dr. Cole (previous Area Director) and others, the ARS budget was permanently increased by \$80,000 in FY2009. The President's proposed budget for FY2011 also includes an increase in permanent funding for genetic resources, some of which would come to the Griffin location. During the current FY, all University of Georgia personnel (including S-009 personnel) were required to take six furlough days; however no S-009 funds were lost from the project.

**S-009 Budget Request**

Increase the S-009 FY2011 operations budget in the amount of \$10,000 for a total S-009 FY2011 budget of \$425,644. There has not been an increase in S-009 operation funds for supplies and materials (e.g., seed envelopes, fertilizer, laboratory chemicals, etc.) for more than five years. This budget proposes no increase in salary for personnel based on University of Georgia salary projections. Support is requested as this increase is critical to help ratchet up regeneration, germination and characterization activities that have fallen behind due to budget short falls.

Action Requested: Approval of S-009 FY2011 Budget Request.

Action Taken:

**PLANT GENETIC RESOURCES CONSERVATION AND UTILIZATION  
FUNDING REQUEST FOR FY2011  
TO THE SOUTHERN ASSOCIATION OF  
STATE AGRICULTURAL EXPERIMENT STATION DIRECTORS**

**BUDGET**

<b>A. S-009</b>	<b>FY2009</b>	<b>FY2010</b>	<b>REQUESTED FY2011</b>
Personnel	\$330,349	\$336,270	\$336,270
Travel	1,000	1,000	1,000
Operations	78,374	78,374	88,374
<b>TOTAL</b>	<b>\$409,723</b>	<b>\$415,644</b>	<b>\$425,644</b>
<b>B. USDA/ARS</b>	<b>FY2009</b>	<b>FY2010</b>	<b>PROJECTED FY2011</b>
Personnel	\$1,633,845 <sup>a</sup>	\$1,650,000	\$1,684,000 <sup>d</sup>
Travel	22,500	20,000	20,000
Indirect Research Cost/ Other Services	363,082	381,889	391,252
Operations	103,476	181,120	137,757
Equipment	143,017 <sup>b</sup>	10,000	10,000
Building and Field Maintenance/Support	77,736	80,578	80,578
<b>TOTAL</b>	<b>\$2,343,656<sup>c</sup></b>	<b>\$2,323,587</b>	<b>\$2,323,587</b>

<sup>a</sup> One Agric. Sci. Research technician position was vacated in late FY2009 due to transfer and was abolished.

<sup>b</sup> Includes \$35,100 in temporary funding for real-time PCR upgrade and multisample vacuum evaporator.

<sup>c</sup> Includes \$80,000 permanent increase in program funds.

<sup>d</sup> Includes a 1.4% projected salary increase.