

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 63 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 2012:

- A total of 40,465 accessions (15,802 in S-009 region) were distributed in 1,081 orders to users worldwide in 2012. Distributions were made to users in 48 states and 41 countries.
- The plant genetic resources collection totals 91,930 accessions of 1,553 species and 260 genera with 87.9% available for distribution and 96.6% backed up at Ft. Collins, CO.
- Over 550 accessions were added including sorghum, pepper, grass, cowpea, and peanut.
- Currently, 67,567 accessions or 74.6% of the 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 7,966 accessions. Since 2002 when germination testing began, tests have been conducted on 73,886 accessions (81.6% of collection).
- A new 4C cold room with moveable storage shelves in an addition to the ARS Seed Processing building was completed. An existing 4C cold room will be converted to -18C to store bulk seed of the entire Griffin collection in -18C for improved seed longevity.
- Three different methods used by researchers to detect the high oleic acid trait in peanuts were compared. The genotyping and capillary electrophoresis methods were effective in detecting high oleic acid peanuts, while the near infrared method was not as effective.
- Salt tolerance screening was conducted on the U.S. zoysia collection.
- Seed oil content and fatty acid composition was determined for the entire U.S. collections of kenaf, roselle, okra (oil content only), and two pumpkin species.
- Due to the susceptibility of most peanut accessions to tomato spotted wilt virus at Georgia regeneration sites, peanut regenerations were successfully conducted with cooperators in south Georgia, Florida, North Carolina, Oklahoma, and New Mexico.
- A plant collection trip was conducted in Georgia, North Carolina, and South Carolina adding 25 new switchgrass accessions to the collection for bioenergy research.
- Morphological descriptor, oil content, fatty acid composition, and genetic variability data are being used to develop a core subset from the U.S. castor bean collection.
- Over 4,616 digital images of sorghum, cucurbit, cowpea, and warm-season grass accessions were added to GRIN.
- Fiscal resources were optimized by obtaining items from closures of ARS locations at Watkinsville, GA; Brooksville, FL; and Clemson, SC. These included 3 vehicles, 2 tractors, lab balances, ice machine, mowers, sprayers, chisel plow, glassware, work tables, file cabinets, office chairs, and others with an estimated value of over \$177,000.
- Five-year ARS Project Plan for 2013-2018 was completed and approved.

- All available S-009 annual reports and minutes since 1949 are now posted as searchable PDF files online (www.ars.usda.gov/Main/docs.htm?docid=9592).

Financial Situation: Sequestration has greatly impacted the location's financial situation with a 5% cut reducing FY2013 federal funds by \$115,947. All temporary personnel were terminated which has reduced seed distribution efficiency and created a greater workload on federal and S-009 employees. Federal travel was reduced 30% from FY2010 levels. Regeneration numbers have been maintained, however characterization research has been impacted. Increases proposed for the Griffin location in recent President's budgets (FY2011-FY2013) have not materialized.

S-009 Budget Request

Cognizant of sequestration, no program budget adjustments are requested.

Action Requested: Approval of S-009 FY2014 Budget Request of \$431,723.

**PLANT GENETIC RESOURCES CONSERVATION AND UTILIZATION
FUNDING REQUEST FOR FY2014
TO THE SOUTHERN ASSOCIATION OF
STATE AGRICULTURAL EXPERIMENT STATION DIRECTORS**

BUDGET

A. S-009	FY2012	FY2013	REQUESTED FY2014
Personnel	\$338,349	\$352,349	\$352,349
Travel	1,000	1,000	1,000
Operations	78,374	78,374	78,374
TOTAL	\$417,723	\$431,723	\$431,723

B. USDA/ARS	FY2012	PROPOSED FY2013	PROJECTED FY2014
Personnel	\$1,726,559	\$1,757,775	\$1,775,353
Travel	24,385	14,535	14,535
Indirect Research Cost/ Other Services	344,381	330,782	310,830
Operations	202,787 ^{a b}	19,321	21,695 ^d
Equipment	37,200 ^c	0	0
Building and Field Maintenance/Support	80,580	80,580	80,580
TOTAL	\$2,415,892	\$2,202,993	\$2,202,993

^a Decreased by temporary assessment of \$15,676 to help pay for ARS location closures.

^b Includes \$67,515 in temporary funding for greenhouse roof panels and greenhouse electric upgrade.

^c Includes \$28,000 in temporary funding for additional moveable storage shelves for new 4C cold room.

^d Includes 3% waiver of R&M to allow an additional 1% of funds for operations.