

**S-009 Regional Technical Advisory Committee
Minutes of Annual Meeting, August 4-5, 2009**

**Research and Education Garden Building
University of Georgia Griffin Campus
Griffin, GA**

Members present:

Alabama (Auburn University)Jorge Mosjidis (mosjija@auburn.edu)
Florida (University of Florida)Kevin Kenworthy (kenworth@ufl.edu) for Ken Quesenberry
Georgia (University of Georgia).....Paul L. Raymer (praymer@griffin.uga.edu)
Guam (University of Guam).....Mari Marutani (marutani@uguam.uog.edu)
Kentucky (University of Kentucky)Tim Phillips (tphillip@uky.edu)
North Carolina (North Carolina State University).....Tom Stalker (tom_stalker@ncsu.edu) for Tom Isleib
Oklahoma (Oklahoma State University).....Yanqi Wu (yanqi.wu@okstate.edu)
South Carolina (Clemson University).....Emerson Shipe (eshipe@clemson.edu)
Southern Association of Agric. Exp. Sta. DirectorsGerald Arkin (garkin@uga.edu)
Tennessee (University of Tennessee)Fred Allen (allenf@utk.edu)
Texas (Texas A&M University)Gerald R. Smith (g-smith@tamu.edu)

Members absent:

Arkansas (University of Arkansas).....James C. Correll (jcorrell@uark.edu)
Hawaii (University of Hawaii)Mike A. Nagao (mnagao@hawaii.edu)
Louisiana (Louisiana State University)Don LaBonte (dlabonte@agcenter.lsu.edu)
Mississippi (Mississippi State University)[vacant]
Puerto Rico (University of Puerto Rico).....Bryan R. Brunner (brbrunner@yahoo.com)
Virginia (Virginia Polytechnic Inst. and State Univ.)..Richard Veilleux (potato@vt.edu)
Virgin Islands (University of the Virgin Islands)Tom Zimmerman (timm@uvi.edu)

USDA, ARS, PGRCU representatives present:

PGRCU, Griffin, GAGary A. Pederson (gary.pederson@ars.usda.gov)
PGRCU, Griffin, GAMelanie Harrison-Dunn (melanie.harrisondunn@ars.usda.gov)
PGRCU, Griffin, GABob Jarret (bob.jarret@ars.usda.gov)
PGRCU, Griffin, GARoy Pittman (roy.pittman@ars.usda.gov)
PGRCU, Griffin, GAMing Li Wang (mingli.wang@ars.usda.gov)
PGRCU, Griffin, GADave Pinnow (david.pinnow@ars.usda.gov)
PGRCU, Griffin, GAMerrellyn Spinks (merrellyn.spinks@ars.usda.gov)

The meeting was called to order at the UGA-Griffin Research and Education Garden building at 1:00 pm on August 4, 2009 by Gerald (Ray) Smith, President. Those present introduced themselves. Dr. Gerald Arkin, the administrative advisor for the S-009 RTAC, welcomed the group to Griffin, a place where preservation, conservation, collection, and distribution of germplasm has been happening for decades. He relayed to the group that the Directors of Southern Agricultural Experiment Stations hold the Griffin PI station in high regard, but we should help our home directors know how valuable Griffin is to our research programs. He discussed current challenges, such as maintaining funding to support the national germplasm system, training the next generation of plant breeders, filling vacancies in tough budgetary times, etc. Dr. Arkin next discussed the expansion of the UGA-Griffin campus. An \$11 million learning center was close to being opened, and now UGA-Griffin has all three components of the land grant mission. He praised the commitment of the local Griffin community, in that a local option sales tax was used to raise money to build the new learning center. Tom Stalker asked about potential loss of plot land from the PI station as the campus expands. Dr. Arkin suggested that eventually there may be a need to move research and germplasm plots as campus gets crowded in the future, but currently there is lots of space nearby. He mentioned that with fewer Ag students relative to other colleges, traditional College of Agriculture programs may shrink, unless strategic planning is done successfully to deal with this. Paul Raymer commented that although there is plenty of land to move to, resources to cover the relocation and redevelopment are the problem. Dr. Arkin speculated about how big the UGA-Griffin campus could grow, and suggested that eventually Atlanta would be contiguous with Griffin, and perhaps 30,000 students would be enrolled at UGA-Griffin. He stressed the need to

plan, have an outlook for the future in long-term planning. Emerson Shipe asked about student numbers currently. Dr. Arkin said that about 200 students will be enrolled, and 35 have done coursework at Athens. New money will be required to grow this program. The new Student Learning Center building should accommodate 800-1000 students. Gary Pederson asked for a count of those planning on eating together for dinner so reservations could be made.

Minutes from the 2008 S-009 meeting in Raleigh were discussed. A motion to approve the minutes was made by Fred Allen, and seconded by Paul Raymer. The motion passed. A committee to nominate candidates for secretary for 2010 was formed, consisting of Emerson Shipe and Jorge Mosjidis. The location for the 2010 meeting was predetermined to coincide with the PGOC-CGG meetings in Geneva, NY during July 27-29, 2010 with our S-009 RTAC meeting for one day during this period.

Gary Pederson gave his report for the Griffin location (Appendix 1) after discussing Peter Bretting's report and Ann Marie Thro's poster from the Horticulture meetings. Gary reported that there are 89,451 accession at Griffin, with 78,349 (87.6%) available and 86,237 (96.4%) backed up. Emerson Shipe asked what kinds of material make up the new accessions. Gary Pederson said that it varies by species, with some new acquisitions. Tom Stalker asked about the backup collection, and wanted to know how often it is tested for germination, and will they need to be updated. Gary Pederson said that it is standard procedure to send an update to the backup site each time a germplasm accession is grown out for renewal. Some species such as sorghum can store for 50 years. Dr. Arkin asked about duplications in the collection and the sorghum association panel. Merrelyn Spinks said that there is a lot of duplication in the system, and some of the duplication has been cleaned up. Paul Raymer asked about backup at Ft. Collins. Gary Pederson answered that seeds at Ft. Collins are stored at -18C, and collections of material outside the National Plant Germplasm System, such as the collection of bermudagrass at Tifton, is not counted as backups. Emerson Shipe asked about other locations for the bamboo collection at Savannah, and Gary Pederson mentioned Puerto Rico. Melanie Harrison-Dunn stated that private collections of bamboo are larger than the PI collection, and that the Savannah collection may be in danger. Tom Stalker asked how many accessions of grasses are vegetative, and Melanie Harrison-Dunn stated that 400 accessions are vegetative. Paul Raymer mentioned that peppers are in high demand, due to many small companies. Gary Pederson reminded us that homeowner requests are not granted. Mari Marutani asked if he didn't want those (homeowner) customers, and he responded that the seed is utilized for research, breeding, and educational purposes. Emerson Shipe asked about cucurbits and okra numbers, and Bob Jarret stated that resource (space) issues are a problem with cucurbits, and that okra is a low-priority crop. Mari Marutani asked about shipping costs. Gary Pederson said that some cooperators supply Fedex account numbers for large requests. Tom Stalker asked about hiring/personnel, specifically what number of curators is needed, what is the critical number. Gary Pederson reminded us that at one time, Gil Lovell was the sole curator at Griffin. Currently, ARS policy requires a budget amount of \$25,000 per SY for operating expenses, and if this isn't available, the slot is terminated. The Unit must have sufficient funding for curatorial support and operating funds. He said that the Vigna curation position (Graves Gillespie) was lost a few years ago due to insufficient funds. He noted the difference in Cat. 1 vs. Cat. 4 positions, in which Cat. 4 personnel (service scientists) do not have to conduct research and publish. Fred Allen asked about shipping costs, but Gary Pederson said that shipping is not a large expense. Yangi Wu asked about seed increase of cross-pollinating species. Melanie Harrison-Dunn replied that spatial separation is used for cross-pollinated grasses. Tom Stalker asked what proportion of support staff is used for activities other than curation. Gary Pederson answered that the molecular laboratory personnel conduct molecular activities and chemical analyses.

The group had a break from 3:00-3:25 pm after which time state reports were given. State reports for Alabama, Florida, Georgia, Guam, Kentucky, North Carolina, Oklahoma, South Carolina, Tennessee, and Texas were presented orally (written reports at the S-009 website).

The nominations committee (Jorge Mosjidis and Emerson Shipe) reported that the candidate for the next secretary of the group was Paul Raymer. No other nominations were made. Fred Allen moved that Paul Raymer be elected by acclamation. The motion was seconded by Tom Stalker and passed. We were reminded that the meeting next year would be in Geneva, NY, July 27-29, 2010. Plans were made for the tour of field plots, greenhouses, and laboratories at Griffin the following morning, August 5, 2009. The meeting was adjourned at 5:00 pm, August 4, 2009.

Appendix 1

DR. GARY PEDERSON

PLANT GENETIC RESOURCES:
CURRENT STATUS

Plant Genetic Resources: Current Status

Gary A. Pederson

USDA, ARS, Plant Genetic Resources
Conservation Unit

Griffin, GA

Outline

- PGRCU mission
- Current status of each crop
- Progress made
 - Distributions
 - Funding
 - Staffing
 - Equipment and facilities
- Needs

What is the mission of PGRCU?

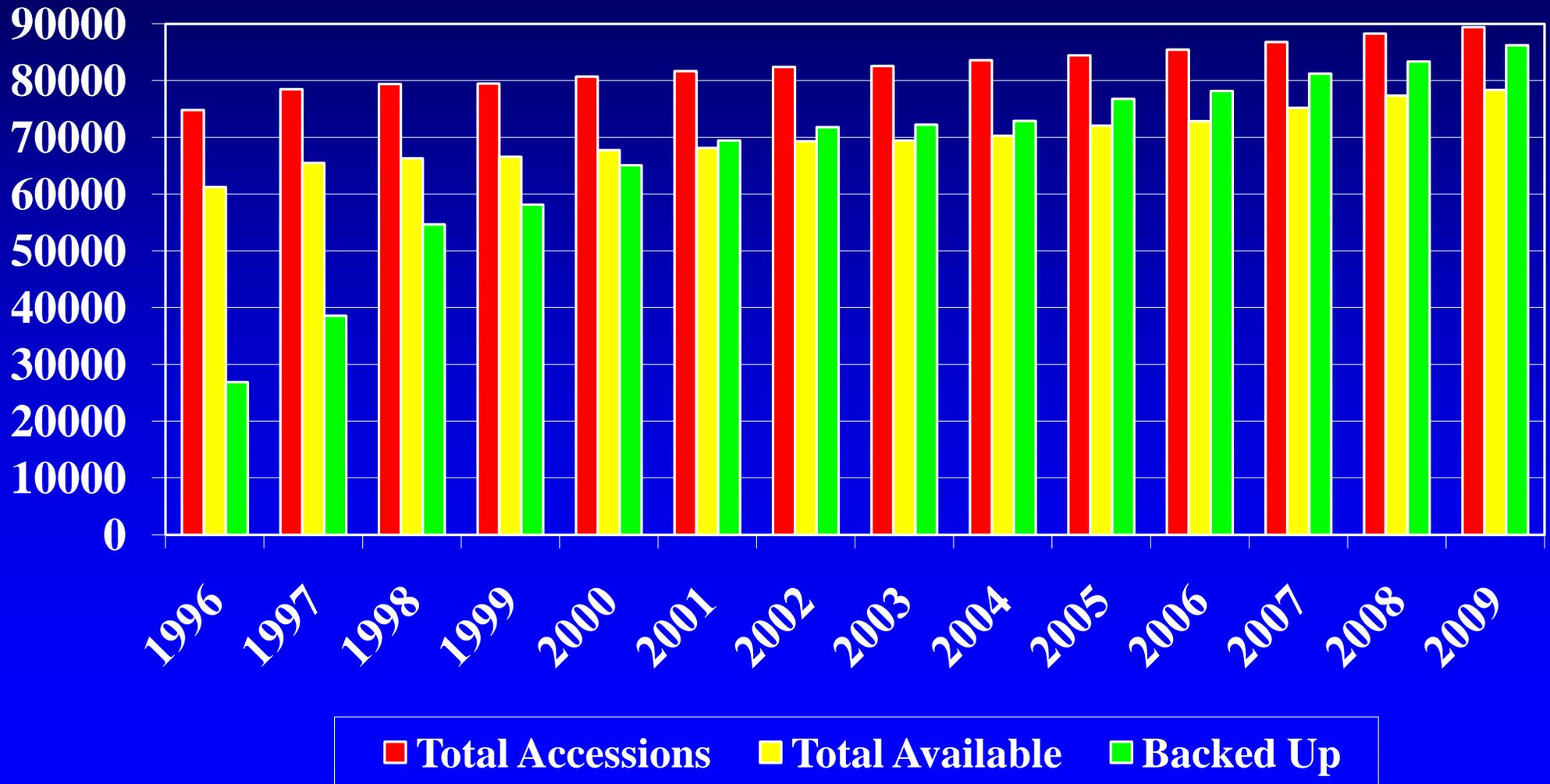
- Plant Genetic Resources Conservation Unit (PGRCU) exists to conserve plant genetic resources for users today and for future generations.
- Mission: "acquire, characterize, maintain, evaluate, document, and distribute plant genetic resources".
- This is what users of the genetic resources maintained at Griffin expect from the Unit.

PGRCU Collection - June 2009

- Total Accessions
 - 89,451
- Total Available
 - 78,349 (87.6%)
- Backed Up
 - 86,237 (96.4%)

Acknowledgement: Merrelyn Spinks and Lee Ann Chalkley, PGRCU, compiled and summarized all numbers shown in this presentation.

PGRCU Collection 1996 - 2009



Vigna

CURATOR	CROP	TOTAL ACCESSIONS	TOTAL AVAILABLE	NUMBER BACKED UP	ITEMS SHIPPED IN 2008
Gary Pederson	Cowpea	8,043	6,303	7,998	1,133
	Mung bean	4,203	3,822	4,203	44
	Other Vigna spp.	599	314	357	22

Vegetable Crops & Sweetpotato

CURATOR	CROP	TOTAL ACCESSIONS	TOTAL AVAILABLE	NUMBER BACKED UP	ITEMS SHIPPED IN 2008
Bob Jarret	Cucurbits	2,046	932	1,876	809
	Eggplant	1,016	915	992	512
	Okra	2,970	1,549	2,934	118
	Peppers	4,699	4,598	4,694	3,873
	Sweetpotato - tissue culture	764	724	672*	230
	Other Ipomoea spp.	471	207	411	297
	Watermelon	1,896	1,664	1,864	2,901

Legumes and Misc. Crops

CURATOR	CROP	TOTAL ACCESSIONS	TOTAL AVAILABLE	NUMBER BACKED UP	ITEMS SHIPPED IN 2008
Brad Morris	Castor bean	374	192	373	628
	Kenaf & Roselle	340	285	338	186
	Legumes	3,647	2,700	3,481	891
	Miscellaneous	136	100	130	90
	Sesame	1,216	1,195	1,216	305

Warm-Season Grasses

CURATOR	CROP	TOTAL ACCESSIONS	TOTAL AVAILABLE	NUMBER BACKED UP	ITEMS SHIPPED IN 2008
Melanie Harrison- Dunn	Bamboo	98	98	3	42
	Grasses	7,060	6,074	6,726	1,693
	Pearl millet	1,319	1,048	1,091	111

Clover and Sorghum

CURATOR	CROP	TOTAL ACCESSIONS	TOTAL AVAILABLE	NUMBER BACKED UP	ITEMS SHIPPED IN 2008
Gary Pederson	Annual Clover	2,154	1,768	2,138	576
	Sorghum	36,433	35,242	35,359	13,889

Peanuts

CURATOR	CROP	TOTAL ACCESSIONS	TOTAL AVAILABLE	NUMBER BACKED UP	ITEMS SHIPPED IN 2008
Roy Pittman	Cultivated Peanuts	9,182	7,959	9,004	2,313
	Wild Peanuts	785	660	378	156

Number (and %) of accessions that are unavailable

Crop	2008	2009	Crop	2008	2009
Cowpea	1,839 (23%)	1,740 (22%)	Kenaf/roselle	55 (16%)	55 (16%)
Mung bean	363 (9%)	381 (9%)	Legumes	969 (27%)	947 (26%)
Cucurbits	818 (59%)	816 (58%)	Sesame	20 (2%)	21 (2%)
Eggplant	84 (8%)	101 (10%)	Grasses	913 (13%)	986 (14%)
Okra	1,419 (48%)	1,421 (48%)	Pearl millet	40 (4%)	271 (21%)
Peppers	122 (3%)	101 (2%)	Annual clover	401 (19%)	386 (18%)
Sweetpotato (TC)	40 (5%)	40 (5%)	Sorghum	1,301 (4%)	1,191 (3%)
Watermelon	194 (10%)	232 (12%)	Cultivated peanuts	1,140 (12%)	1,223 (13%)
Castor bean	168 (45%)	182 (49%)	Wild peanuts	126 (16%)	125 (16%)
			TOTAL	10,948 (12%)	11,102 (12%)

Digital photos

Crop	Images
Sorghum	6,731
Watermelon	1,484
Pepper	1,418
Peanuts	546
Pearl millet	445
Cowpea	382
Cucurbits	273
Bamboo	84
Other crops	119
Total	11,480 (12.8%)

Germination Testing

(Accessions with seed only, tested since 2002)

Crop	Accessions	%	Crop	Accessions	%
Sorghum	25,095	68.9	Okra	1,755	59.1
Peppers	4,640	98.7	Watermelon	1,742	91.9
Mung bean	3,899	92.8	Grasses	1,373	19.4
Peanuts	3,044	33.2	Sesame	1,211	99.6
Legumes	2,345	76.2	Pearl millet	1,069	81.0
Cowpea	2,188	27.2	Eggplant	930	91.5
Clover	1,836	85.2	Cucurbits	655	46.9
			TOTAL	54,054	60.4

Accessions in -18 C storage

(Accessions with seeds only, seed splitting initiated in 2001)

Crop	Accessions	%	Crop	Accessions	%
Sorghum	24,321	66.8	Watermelon	1,896	100.0
Grasses	6,761	100.0	Cucurbits	1,391	99.6
Peppers	4,699	100.0	Sesame	1,216	100.0
Mung bean	4,045	96.2	Eggplant	1,016	100.0
Legumes	3,074	100.0	Cowpea	838	10.4
Okra	2,970	100.0	Gourds	485	100.0
Peanuts	2,558	27.9	Ipomoea spp.	454	97.0
Clover	2,140	99.4	TOTAL	60,269	68.7

Requested for regeneration in CY2008

Crop	# accessions	Crop	# accessions
Cowpea	124	Grasses	190
Sorghum	1,260	Legumes	225
Cucurbit	28	Wingbean	22
Clovers	233	Other Vigna	95
Pearl millet	51	Cult peanut	478
Peppers	121	Guar	50
Watermelon	5	Castor bean	11

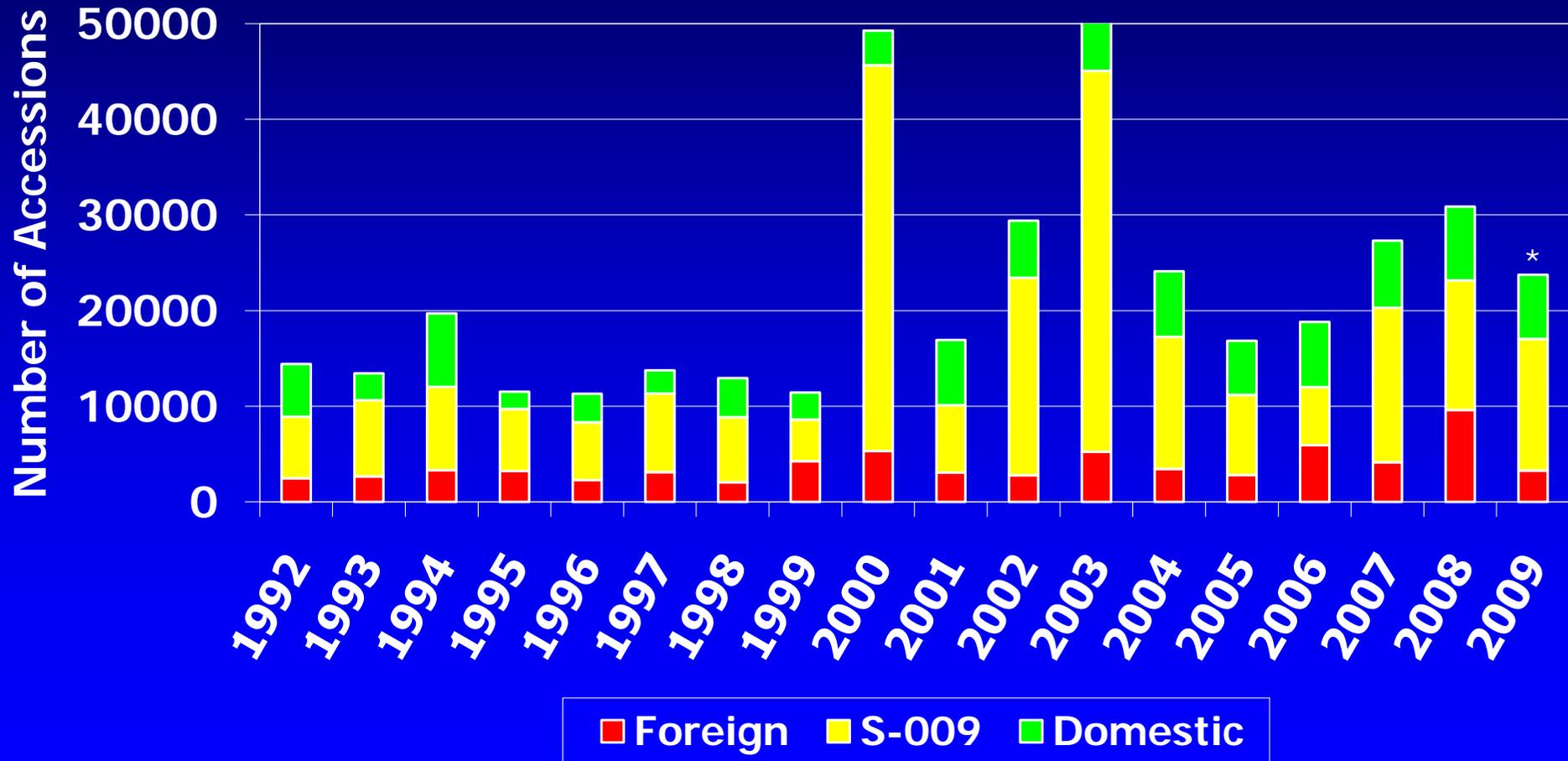
Regenerations by others in CY2008

- 52 cowpea, 10 *Leucaena leucocephala* accessions
 - Ricardo Goenaga, USDA, ARS, St. Croix
- 112 peanut accessions
 - Charles Chen, USDA, ARS, Dawson, GA
- 75 peanut accessions
 - Hassan Melouk, USDA, ARS, Stillwater, OK
- 109 pearl millet accessions (quarantine increase)
 - Jeff Wilson, USDA, ARS, Tifton, GA
- 565 sorghum accessions (sorghum association panel)
 - John Burke, USDA, ARS, Lubbock, TX

Distributions in CY2008

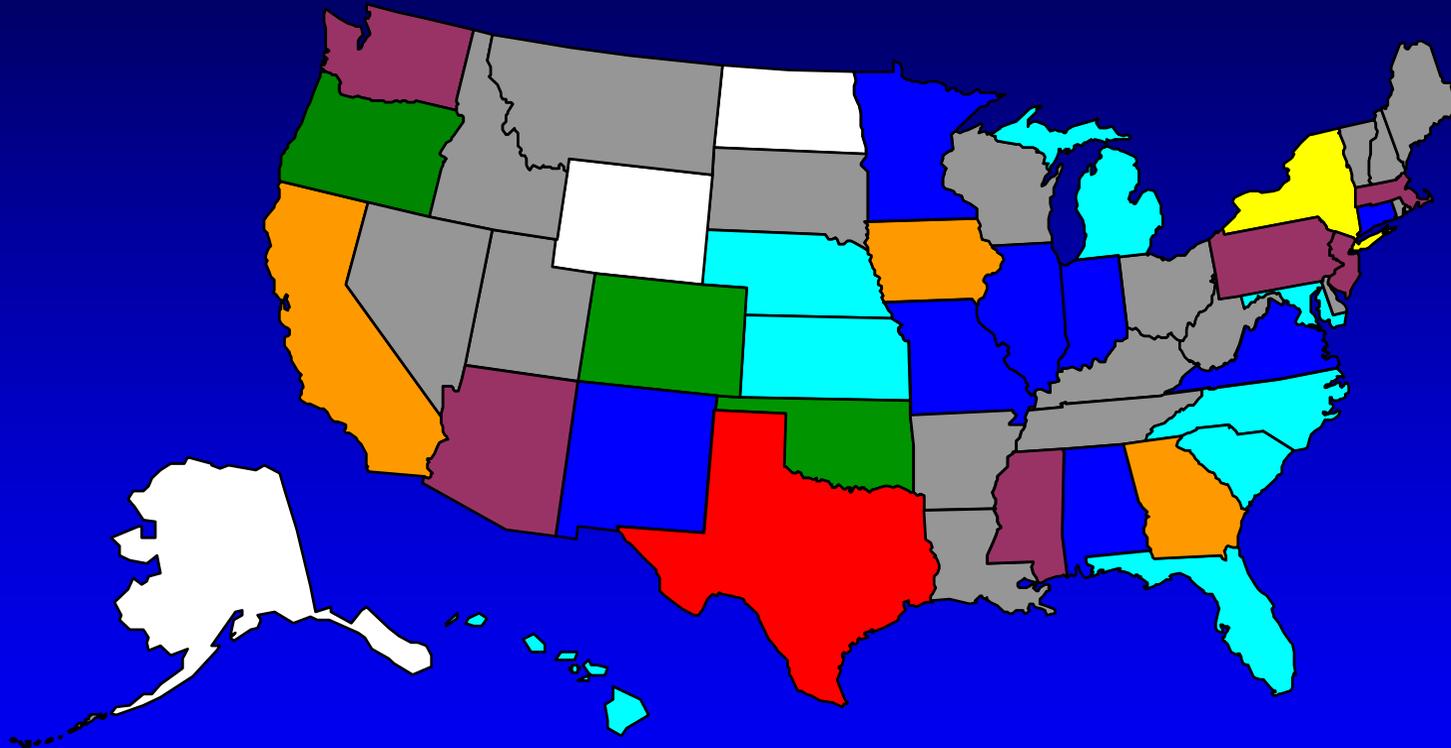
- Domestic = 21,272 items in 685 orders
 - S-9 region = 13,563 items
- Foreign = 9,611 items in 196 orders
- Total CY2008 distributions = 30,883 items

Distributions



* As of July 23, 2009

Domestic Distributions in CY2008



Total number of accessions by state



Distributions outside of 50 U.S. states in CY2008

Argentina	Cote D'Ivorie	Israel	Portugal	Switzerland
Australia	Czech Rep	Italy	Puerto Rico	Taiwan
Austria	Denmark	Japan	Singapore	Thailand
Belgium	Egypt	Lithuania	Slovakia	Turkey
Bolivia	France	Mexico	Slovenia	UAE
Brazil	Germany	Netherlands	South Africa	United Kingdom
Bulgaria	Greece	New Zealand	South Korea	Uruguay
Canada	India	Philippines	Spain	Vietnam
China	Ireland	Poland	Sweden	Virgin Islands

Total PGRCU Funding

- ARS base funding
 - FY2009 = \$2,270,142
- S-009 base funding
 - FY2009 = \$409,723

PGRCU Funding

- ARS base funding
 - FY2009 = **\$80,000** permanent funding increase
 - Also received Pay Act increase
- ARS temporary funding increases
 - FY2008 = \$15,000 (cages)
 - FY2008 = \$30,000 (low-gear tractor)
 - FY2008 = \$24,000 (computer fiber optic lines)
 - FY2008 = \$35,000 (gas chromatograph)

Staffing - ARS

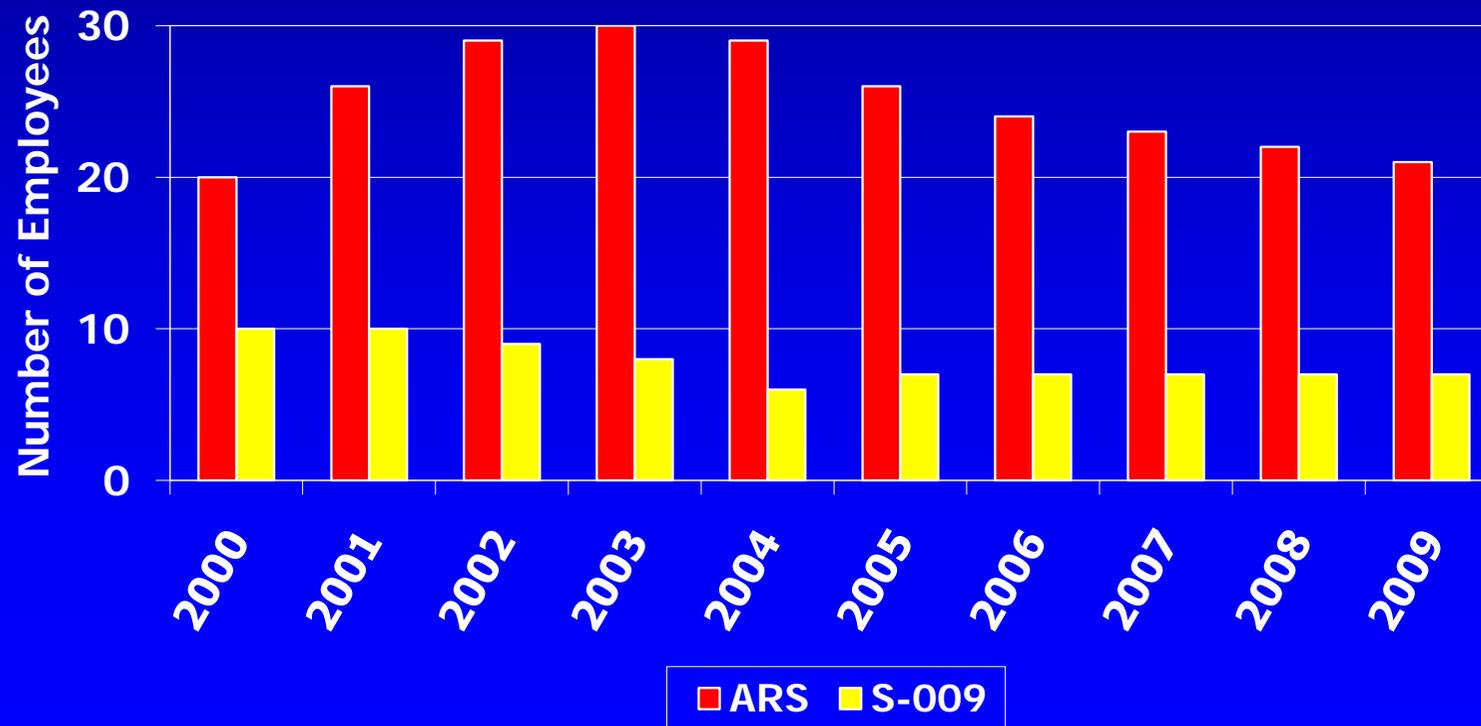
- 21 ARS full-time employees
- One resignation and position terminated
 - Biological Sciences Technician (peanut)

Staffing - S-009

- Seven permanent S-009 employees
- 10 temporary full-time and part-time employees were hired during FY2008 to handle specific labor needs.

Staffing summary

- Current staff is 28 employees (21 ARS and 7 S-009)
- Ten S-009 temporary labor positions



Equipment purchased

- Farm operations
 - Chisel plow
 - Harrow
 - Tiller
 - Eco Weeder (Byron)
 - Plow



Equipment purchased

Laboratory

- Benchtop NMR to measure seed oil content
- PCR
- Lab refrigerator
- Lab freezer



Vehicles

American Recovery and Reinvestment Act

(Federal vehicle replacement program)

- Two Ford Escape Hybrids
 - Traded in 1995 Ford truck and 1993 Dodge Caravan
- Two other trades proposed
 - To obtain two Jeep Patriots

Obtained (surplus)

- 2001 Dodge Caravan (~30,000 miles)

Purchased

- Ford F350 truck to haul equipment on trailer
 - Replaced 1996 Dodge truck

Facility Repair and Maintenance

- Replaced roofing and installed hardiboard soffit, siding, and eaves on State Seed Storage building.
- Installed new cooling pad system for the peanut bays of ARS greenhouse.
- Raised sagging ceiling in 4C cold room in ARS Seed Storage building.
- Installed four new evaporative coolers in two small ARS greenhouses.



Other information



- UGA Student Learning Center will be dedicated this month.
- Leases (5 yr) on UGA buildings used by PGRCU approved by Board of Regents
- UGA service road (Fields M&N)
- UGA Continuing Education will host the 3rd Curators workshop, Atlanta, Feb. 2-4, 2010

Needs

- Technical support
 - Peanut: Field support
 - Forage legumes: HPLC characterization
 - Grass: labor to support grass tissue culture
 - Seed storage: seed processing
 - Field crew: weeding, irrigation, harvesting
- Curation
 - Cat. 4 curator (Vigna, watermelon, cucurbits)

Needs

- Equipment

- Tissue culture chamber (grasses) \$ 8,000
- Nitrogen evaporator \$ 9,000
- Ultra low temp freezer \$ 9,500
- Real Time PCR upgrade \$14,000
- Thresher (peanut) \$14,000
- Cages \$26,000
- Moveable storage shelves for 4C room \$93,000

- Building

- Addition of 4 C cold storage room \$375,000
(convert existing 4 C to -18 C storage)

Plant Genetic Resources Conservation Unit



April 2007