ANNUAL REPORT OF COOPERATIVE REGIONAL PROJECTS

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PROJECT: Regional Research Project S-009

Plant Genetic Resources Conservation and Utilization

COOPERATING AGENCIES AND PRINCIPAL LEADERS:

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Curator, Agronomist	R.N. Pittman

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PROGRESS OF WORK AND PRINCIPAL FINDINGS:

Genetic resources representing over 1,200 new accessions were received, increasing the Unit holdings to in excess of 78,000. New introductions represented a broad range of genera and species. Over 7,500 seed regenerations were accomplished at Griffin or through cooperators across various sites. In response to more than approximately 1,000 requests, more than 35,000 distributions were made (approximately 90% were supplied to domestic users). Over 300 oligomers were distributed as molecular markers to profile ('type') accessions and map useful characteristics. In complement, enhanced effort on database development of the Germplasm Resources Information Network (GRIN) occurred.

In collaboration with crop experts, evaluation studies were conducted on morphological and agronomic/horticultural traits in forage legumes, grasses, sorghum, peanut, watermelon, and pepper. Associated characterizations were conducted in all regenerations by all curators.

Various genetic analysis techniques (PCR-based), *i.e.*, RFLPs, RAPDs, AFLPS, and SSRs, are being applied to established genetic identity, relatedness, and structure of accessions held in *ex situ* plant genetic resources repositories in the U.S. (work focused on holdings from Griffin, Mayaguez, Ames, Miami, and Geneva Based on our experiences to date, we have improved efficiency, simplified protocols, increased the level of automation, and deceased the unit costs of each assay. This genetic analysis is conducted in collaboration with Pioneer Hi-Bred International, Perkin-Elmer, AgraTech Seeds, and Linkage Genetics.

Significant effort went to infrastructure improvement during 1996. Renovation of seed storage facility was completed. Computer hardware, software, and peripherals were purchased for installation. The local area network is the final stage of completion and all staff will be on line by Spring 1997. To support controlled pollination efforts, and addition 55 cages were purchased and will be used for 1997 regenerations of vegetable and annual forage legumes.

USEFULNESS OF FINDINGS:

Results obtained via collaborative efforts among scientists at the regional repository, federal laboratories, state agricultural experiment stations, and industry are mutually beneficial as sources

of information and products for all. Through the efforts at the repository, broad genetic representation of crop plants and their weedy/wild relatives is maintained for ready access. Cooperators identifying desirable traits among accessions aid in crop improvement efforts to produce a higher quality product more efficiently and in an environmentally safe manner. Information gained from cropping system studies of potential new crops may lead to greater diversification of agriculture in the southeastern United States.

STATEMENT OF ACCOMPLISHMENTS:

Over the past four years, approximately 120,000 seed packets were distributed to public- and private-sector scientists. Eighty percent of the distributions were made to researchers in the U.S. These requested and evaluated genetic resources included traits used for incorporating disease resistance, insect resistance, and quality factors to recently released lines of sorghum, peanut, watermelon, cowpea, and pepper among other commodities. Documentation of these desirable traits and other related characters can be accessed through the GRIN (Germplasm Resources Information Network).

WORK PLANNED FOR NEXT YEAR:

Continued emphasis will be placed on regeneration and documentation efforts. Molecular marker development research will focus on applications in the sorghum, peanut, sweet potato, and vegetable crops collections. Pathology research will center on characterization and assay development for viruses of legumes.

PUBLICATIONS:

See attachment.

APPROVED:

Don LaBonte
Chair, Technical Committee

2/27/97
Date

Administrative Adviser

3/10/97
Date

PUBLICATIONS

Alabama

Mosjidis, J.A., C.M. Owsley, M.S. Kirkland, and K.M. Rogers. 1996. Registration of 'AU GroundCover' Caley Pea. Crop Science 36:207.

Xie, C. and J.A. Mosjidis. 1996. Selection of stable cultivars using phenotypic variances. Crop Science 36:572-576.

Mosjidis, J.A. 1996. Variability for biomass production and plant composition in sericea lespedeza. Biomass and Bioenergy 11:63-68.

Mosjidis, J.A. 1996. Development of a persistent red clover for the Southeast. p. 20. In: Phillips T. (ed.) Proceedings of the Fourteenth Trifolium Conference, Lexington, Kentucky, May 21-23. 1996.

Mosjidis, J.A., C.M. Owsley, M.S. Kirkland, and K.M. Rogers. 1996. 'AU GroundCover' and 'AU GroundCover': new forage legume cultivars. p. 26. In: Phillips T. (ed.) Proceedings of the Fourteenth Trifolium Conference, Lexington, Kentucky, May 21-23, 1996.

Mosjidis, J.A. 1996. Interaction of the lespedezas with grasses. p. 37-49. In: Springer T.L. and R.N. Pittman (eds.) Identifying germplasm for successful forage legume-grass interactions. Proceedings of a Symposium of the Crop Science Society of America. USDA-ARS, 1996-02 Publications, August 1996.

Chongquing, X. 1996. Selection, sampling error and confidence interval of genetic parameters in red clover (Trifolium pratense L.) Ph.D. Dissertation, Auburn University, Auburn, Alabama.

Ball, D.M., J.A. Mosjidis, D.I. Bransby, and E. van Santen. 1996. Auburn University 1996 Forage Crop Variety Recommendations. Ala. Coop. Ext. Circular ANR-9.

Pittman, W.D. and J.A. Mosjidis. 1996. Competitive ability of sericea lespedeza genotypes in Louisiana Coastal Plains Pastures. Abstracts of technical papers. Southern Branch of American Society of Agronomy. p. 8.

Arkansas

Stewart, J. M. 1996. Inheritance of fertility restoration to the D8 cytoplasmic male sterile. In: D.M. Oosterhuis (ed.). Proceedings 1996 Cotton Research Meeting and 1996 Summaries of Cotton Research in progress. (In Press).

Stewart, J.M. and R.T. Robbins. 1996. Enhancement of cotton germplasm resistant to reniform nematode. In: D.M. Oosterhuis (ed.). Proceedings 1996 cotton Res. Mtg. and 1996 summaries of cotton research in progress. (In press).

Stewart, J. M. and J.F. Zhang. 1996. Cytoplasmic influence on the inheritance of the D8 CMS restorer. Proc. Beltwide Cotton Conferences, p. 622. National Cotton Council, Memphis, TN . (Abstract).

Wasilwa, L.A., T. E. Morelock, and J.C. Correll. 1996 Inheritance of resistance to colletotrichum orbiculare in cucumber. HortScience (In press).

Wasilwa, L.A., T.E. Morelock, and J.C. Correll. 1996. Examination of the inheritance of resistance of colletotrichum orbiculare race 2 in cucumber. HortScience 31:623. (Abstract).

Florida

Prine, G.M. 1996. Registration of 'Surrey' annual ryegrass. Crop Science Vol. 36:1713-1714.

Prine, G.M. and W.V. McConnell. 1996. Growing tall grass energy crops on sewage effluent spray field at Tallahassee, FL. Proceeding of Bioenergy '96, The Seventh National Bioenergy Conference held Sept. 15-20, 1996 at Nashville, TN Vol. II p. 770-777.

Stricker, J.A., G.M. Prine, D.L. Anderson, D.B. Shililes, and T.C. Riddle. 1996. Biomass/energy crops grown on phosphatic clay in Central Florida. Processing of Bioenergy '96. Seventh National Bioenergy Conference held Sept. 15-20, 1996 at Nashville, TN. p. 822-829.

Prine, G.M., R.N. Gallaher, and D.L. Wright. 1996. Production problems with Lupin in Lower South USA. Abstract Book Eight International Lupin Conference p. 113.

Prine, G.M. Pigeonpea, Grain crop for Lower South USA. 1996. Agronomy Abstracts 1996 Annual Meetings of ASA, CSSA and SSA at Indianapolis, IN, Nov. 3-8, 1996 p. 122.

French, E.C., J.A. Stricker, G.M. Prine, F.S. Zazueta, and A.E. Dudeck. 1996. Response of Perennial Peanut at St. Augustine grass to varied soil moisture. Agronomy Abstracts, Annual Meetings of ASA, CSSA and SSSA at Indianapolis, IN, Nov. 3-8, 1996. p. 144-145.

Gardner, C.S., G.M. Prine, and G.L. Queeley. 1996. Pigeopea (*Cajanus cajan* L.): An alternative sustainable crop for the Southern US. Abstracts for Proceedings of National Small Farm Conference held at Nashville, TN., Sept. 10-13, 1996. 13.

French, E.C. and G.M. Prine, 1996. Perennial Peanut: An Alternative Forage of Growing Importance. University of Florida Cooperative Extension Service Publication. SS-AGR-39.

Austin, M.T., M.J. Williams, A.C. Hammond, J.H. Frank, and C.G. Chambliss. 1996. Psyllid population dynamics and plant resistance of *Leucaena* selections in Florida. Trop. Grassl. 30:223-288.

Georgia

No publications.

Hawaii

No publications.

Kentucky

Taylor, N.L. and K.H. Quesenberry. 1996. Germplasm acquisition, maintenance, and evaluation. p. 206-220. In: Red Clover Science. Kluwer Academic Publishers. The Netherlands.

Louisiana

O'Barr, R., et. al. 1996. "Creek", a new pecan variety. Jointly released by the Louisiana, Texas, Alabama, and Georgia Agric. Exp. Stations and the ARS/USDA.

Jodari, F., S.D. Linscombe, P.K. Bollich, J. Bett, D.E. Groth, L.M. White, and R.T. Dunand. 1996. Registration of 'Delrose' Rice. Crop Science 36:1413.

Mississippi

Wallace, T.P. and C.E. Watson. 1996. Combining ability for plant shape. p. 598-599. In: D.A. Richter and J. Armour (ed.), Proc. Beltwide Cotton Conf., Nashville, TN. 8-12 Jan. 1996. National Cotton Council, Memphis, TN.

Jung, G.A., A.J.P. Van Wijk, W.F. Hunt, and C.E. Watson. 1996. Ryegrasses. p. 605-641. In: L.E. Moser, D.R. Buxton, and M.D. Casler (ed.) Cool-Season Forage Grasses. Agron. Monogr. 34. ASA, CSSA, and SSSA, Madison, WI. (invited)

Philley, H.W., J.V. Krans, Jr., C.E. Watson, Jr., J.M. Goatley, Jr., V.L. Mattox, and M. Tomaso-Peterson. 1996. Turf performance of St. Augustinegrass cultivars in north Mississippi. Miss. Agric. & Forestry Exp. Stn. Bull. 1043.

McCarty, J.C., Jr., B. Tang, J.N. Jenkins, and C.E. Watson. 1996. Genetic analysis of primitive cotton germplasm accessions. Crop Sci. 36:581-585.

Shappley, Z.W., J.N. Jenkins, C.E. Watson, Jr., A.L. Kahler, and W.R. Meredith. 1996. Establishment of molecular markers and linkage groups in two F_2 populations of upland cotton. Theor. Appl. Genet. 92:915-919.

Ouma, J.P., J.O. Garner, L.M. Gourley, and C.E. Watson. 1996. Effect of chilling stress on fatty acid composition of total membrane lipids of sorghum. American Society of Agronomy Annual Meeting, Indianapolis, IN. 3 Nov. - 8 Nov. 1996. Agron. Abstr. p. 110.

Watson, C.E., T. Aung, C.O.A. Oduori, and L.M. Gourley. 1996. Selection for spikelet and floret number in annual ryegrass. American Society of Agronomy Annual Meeting, Indianapolis, IN. 3 Nov. - 8 Nov. 1996. Agron. Abstr. p. 89.

Nduulu, L.M. 1996. Screening sorghum [Sorghum bicolor (L.) Moench] germplasm for tolerance to media low in Phosphorus. M.S. Thesis. Mississippi State University. 72 p.

Kamau, C.K. 1996. Phosphorous-use efficiency in sorghum [Sorghum bicolor (L.) Moench]. M.S. Thesis. Mississippi State University. 71p.

Ouma, J.P.A. 1996. Inheritance and physiology of chilling tolerance in sorghum [*Sorghum bicolor* (L.) Moench]. Ph.D. Diss. Mississippi State University. 134p.

Shepherd, R.L., J.C. McCarty, Jr., J.N. Jenkins, and W.L. Parrott. 1996. Registration of nine cotton germplasm lines resistant to root-knot nematode. Crop Sci. 36:820.

Hartwig, E.E., L.D. Young, and P. Gibson. 1996. Registration of soybean germplasm line D83-3349 resistant to sudden death syndrome, soybean cyst nematode, and two root-knot nematodes. Crop Sci. 36:212.

Kilen, T.C., and L.D. Young. 1996. Registration of D93-8664 soybean germplasm line resistant to phytophthora rot and soybean cyst nematode races 3 and 14. Crop Sci. 36:822.

Tyler, J.M. 1996. Characterization of stem canker resistance in 'Hutcheson' soybean. Crop Sci. 36:591-593.

Bowman, D.T., O.L. May, and D.S. Calhoun. 1996. Genetic base of upland cotton cultivars released between 1970 and 1990. Crop. Sci. 36:577-581.

Greene, S.L. and G.A. Pederson. 1996. Eliminating duplicates in germplasm collections: a white clover example. Crop. Sci. 36:1398-1400.

Pederson, G.A., T.E. Fairbrother, and S.L. Greene. 1996. Cyanogenesis and climatic relationships in U.S. white clover germplasm collection and core subset. Crop Sci. 36:427-433.

North Carolina

Hilu, K., and H.T. Stalker. 1995. Genetic relationships between peanut and wild species of *Arachis* section *Arachis* (Fabaceae): Evidence from RAPDs. Plant Syst. Evol. 198:167-178.

Kochert, G., H.T. Stalker, M. Gimenes, L. Galaro, C.R. Lopes, and K. Moore. 1996. RFLP and cytogenetic evidence on the origin and evolution of allotetraploid domesticated peanut, *Arachis hypogaea* (Leguminosae). Amer. J. Bot. 83:1282-1291.

Stalker, H.T., G.D. Kochert, and J.S. Dhesi. 1995. Variation within the species *A. duranensis,* a possible progenitor of the cultivated peanut. Genome 38:1201-1212.

Oklahoma

Baker, C.A., Porter, D.R., and J.A. Webster., 1996. Inheritance and mechanisms of Russian wheat aphid (Homoptera: Aphididae) resistance in PI 225217. Proc. 20th Hard Red Winter Whest Work. Conf. p. 106.

Baker, C.A., D.R. Porter, and J.A. Webster. 1996. Identification of genetic diversity for Russian wheat aphid resistance in wheat. Agron. Abstr., Am. Soc. Agron. p. 93.

Gatschet, M.J., C.M. Taliaferro, D.R. Porter, M.P. Anderson, J.A. Anderson, and K.W. Jackson. 1996. A cold-regulated protein from bermudagrass crowns is a chitinase. Crop Sci. 36:712-718.

Hopkins, A.A., C.M. Taliaferro, C.D. Murphy, and D. Christian. 1996. Chromosome number and nuclear DNA content of several switchgrass populations. Crop. Sci. 36:1192-1195.

Sebesta, E.E., E.A. Woods, D.R. Porter, Jr., J.A. Webster. 1996. Development of a triticale resistant to the greenbug: An historical perspective. Euphytica 87:67.

Webster, J.A., D.R. Porter, J.D. Burd, D.W. Mornhinweg. 1996. Effect of growth stage of resistant and susceptible barley on the Russian wheat aphid, Diuraphis noxia. J. Agric. Entomol. 13(4):283-291.

Puerto Rico

Colberg-Rivera, O., R. Velez-Colon, C.I. Alamo-Gonzalez, and C. Chao de Baez. 1996. Commercial tomato cultivars trials at two locations. J. Agric. Univ. PR. 80: In Press.

Cabrera-Asencio, I. 1996. Cultivares de Cebolla de dias intermedios en el sur de Puerto Rico durante 1994. J. Agric. Univ. Pr. 80: In Press.

South Carolina

Rhodes, B.B., X.P. Zhang, J.T. Garrett, and C. Fang. 1996. Watermelon fruit blotch infection rates in diploids and triploids. Curcurbit Genetics Cooperative Report 19:70-72.

Zhang, X.P., B.B. Rhodes, W.V. Baird, II., T. Skorupska, and W.C. Bridges. 1996. Phenotype, inheritance and regulation of expression of a new virescent mutant in watermelon: juvenile albino. J. Amer. Soc. Hort. Sci. 121:(4):609-615.

Zhang, X.P., B.B. Rhodes, W. V. Baird, W.C. Bridges, and H.T. Skorupska. 1996. Development of genic male-sterile lines with juvenile albino seedling marker. HortScience 31(3):426-429.

Zhang, X.P., B.B. Rhodes, W.V. Baird, W.C. Bridges, and H.T. Skorupska. 1996. Development of genic male-sterile watermelon lines with delayed-green seedling marker. HortScience31(3):123-126.

Adelberg, J., X. Zhang, and B. Rhodes. 1996. Micropropagation of Watermelon. In: Biotechnology in Agriculture and Forestry. Vol. 39., High-Tech and Micropropagation V. Y.P.S. Bajaj (ed.). Springer-Verlag, Heidelberg, Germany. In Press.

Havey, M.J., J. McCreight., B. Rhodes, and G. Taurick. 1996. Inheritance and evolution of the cucurbit organeller genomes. HortScience 31(4):601. Abstract.

Zhang,, X., B. Rhodes, V. Baird, and H. Skorupska. 1996. A tendrilless mutant in watermelon: phenotype and development. HortScience 31(4):602. Abstract.

Tennessee

MacDermott, J. and D. L. Coffey. 1996. Growth analysis of 'Dalvia' Chicory grown under bare soil or straw mulch conditions. HortScience 31(4):587.

Texas

Burson, B.L. and P.W. Voigt, 1996. Cytogenetic relationships between members of the Eragrostic curvula and E. lehmanniana complexes. Intern. J. Plant Sci. 157:632-637.

Crasta, O., W. Xu, D. Rosenow, J. Mullet, and H. Nguyen. 1996. Molecular genetic analyis of the relationship of staygreen trait and grain yield in sorghum. p. 65. In: Plant Genome IV, Jan. 14-18, 1996, San Diego, CA.

Dahlberg, J.A., D.T. Rosenow, G.C. Peterson, L.E. Clark, F.R. Miller, A. Sotomayor-Rios, A.J. Hamburger, P. Madera-Torres, A. Quiles-Belen, and C.A. Woodfin. 1996. Release of forty converted sorghum lines from the World Sorghum Collection. Intl. Sorghum and Millets Newletter. ISMN No. 37. p. 53-56.

Hussey, M.A., and E.C. Bashaw. 1996. Performance of Buffelgrass germplasm with improved winter survival. Agron. J. 88:944-946.

Miller, F.R., K.L. Prihoda, L.W. Rooney, D.T. Rosenow, and R.D. Waniska. 1996.Registration of a food quality sorghum restorer parent, Tx2907. Crop Sci. 36:479.

Rosenow, D.T., G. Ejeta, L.E. Clark, R.G. Henzell, and A.K. Borrell. 1996. Breeding for pre- and post-flowering resistance in sorghum. In: Proc. Intl. Conf. on the Genetic Improvement of Sorghum and Pearl Millet. Sept. 22-27, 1996, Lubbock, Texas (In Press).

Rosenow, D.T., J.A. Dahlberg, G.C. Peterson, L.E. Clark, F.R. Miller, A. Sotomayor-Rios, A. Quiles-Belen, P. Madera-Torres, and C.A. Woodfin. 1996. Registration of fifty converted exotic sorghums. Crop Sci. (In Press).

Rosenow, D.T., J.A. Dahlberg, J.C. Stephens, F.R. Miller, D.K. Barnes, G.C. Peterson, J.W. Johnson, and K.F. Schertz. 1996. Registration of sixty-three converted sorghums from the sorghum conversion program. Crop. Sci. (In Press).

Smith, G.R., D. Wofford, and J.L. Starr. 1996. Evaluation of Alysicarpus germplasm for resistance to root-knot nematode. Plant Disease 80:1147-1150.

Smith, O.D., and C.E. Simpson. 1996. Release of Tamrun 96 runner peanut. A release document submitted to the Texas Agricultural Experiment Station, Texas A&M University, College Station, TX 77843.

Virginia

Liang, H. and K.W. Hilu. 1996. Application of matK gene sequences to grass systematics and evolution. Can. J. Bot. 74:125-134.

M'Ribu, K. and K.W. Hilu. 1996. Application of random amplified polymorphic DNA to study genetic diversity in *Paspalum scrobiculatum* L. (Kodo millet, Poaceae). Genetic Resources Crop Evol. 43:203-210.

NCGR-Tropical Fruit

Zee, F., M. Aradhya, R. Manshardt, and L. Sui. 1996. Utilization of isozyme markers for evaluation of tropical fruit and nut germplasm at the USDA/ARS Clonal Germplasm Repository. International conference on Tropical Fruits- "Global commercialization of Tropical Fruits". Proceeding - Kuala Lumpur, Malaysia (1) 191-202.

Zee, F. 1996. Lychee culture and management. Hawaii Grown Tree Crops Journal. Vol. IV(2), 13-14 & Vol. IV(3) 13-14.

Zee, F. 1996. Longan culture and management. Hawaii Grown Tree Crops Journal. Vol. IV(1), 8-10, 12.

Aradhya, M.K., F.T. Zee, and R.M. Manshardt. 1996. Genetic diversity in Nephelium as revealed by isozyme polymorphism. J. of Horticultural Science 71(6) 847-857.

USDA-Plant Genetic Resources Conservation Unit

Meng, J., S. Zhao, M.P. Doyle, S.E. Mitchell, and S. Kresovich. 1996. Polymerase chain reaction for detecting *Escherichia coli* 0157:H7. Int. J. Food. Micro. 32:103-113.

Satyanarayana, T., S.E. Mitchell, D.V. R. Reddy, S. Kresovich, R.L. Jarret, R.A. Naidu, S. Gowda, and J.W. Demski. 1996. The complete nucleotide sequence and genome organization of the M-RNA segment of peanut bud necrosis tospovirus and comparison with other tospoviruses. J. Gen. Virol. 77:2347-2352.

Szewc-McFadden, A.K., S. Kresovich, S.M. Bliek, S.E. Mitchell, and J.R. McFerson. 1996. Identification of polymorphic, conserved simple sequence repeats (SSRs) in cultivated *Brassica* species. Theor. Appl. Genet. 93:534-538.

Brown, S.M., M.S. Hopkins, S.E. Mitchell, T.Y. Wang, S. Kresovich, R.R. Duncan, M.L. Senior, and F. Gonzalez-Candelas. 1996. Multiple methods for the identification of polymorphic simple sequence repeats in sorghum [*Sorghum bicolor* (L.) Moench]. Theor. Appl. Genet. 93:190-198.

McFerson, J.R., W.F. Lamboy, and S. Kresovich. 1996. Crucifer genetic resources: assessing users' needs and perceptions. Crop Sci. 36:831-837.

Satyanarayana, T., S.E. Mitchell, D.V.R. Reddy, S.M. Brown, S. Kresovich, and J.W. Demski. 1996. Peanut bud necrosis tospovirus S RNA segment: complete nucleotide sequence, coding strategy, and homology to other members of the genus tospovirus. Arch. Virology 141:85-98.

Brown, S.M., and S. Kresovich. 1996. Development and application of simple sequence repeat (SSR) DNA loci for plant genome analysis. In: Methods of Genome Analysis in Plants: Their Merits and Pitfalls, (P.P. Hauhar, ed.), pp. 147-162, CRC Press, Boca Raton.

Xing, C., R.L. Jarret, Z. Li, A. Xing, and J.W. Demski. 1996. Production of fertile transgenic peanut (*Arachis hypogaea* L.) plants using *Agrobacterium tumefaciens.* Plant Cells Reports 15:653-657.

Pio-Ribeiro, G., S. Winter, R.L. Jarret, J.W. Demski, and R.I. Hamilton. 1996. Detection of Sweet Potato Virus Disease-Associated Closterovirus in a Sweet Potato Accession in the United States. Plant Disease 80:551-554.

National Germplasm Resources Lab

No publications.

National Seed Storage Laboratory

No publications.

NCGR-Subtropical Horticultural Res. Stn., ARS

No publications.

Northern Regional Res. Center, ARS

No publications.

Tropical Agricultural Research Station, ARS

No publications.

USDA-Soil Conservation Service

No publications.

USDA-CSREES

No publications.