

## S-9 REGIONAL PROJECT

### NEW PLANTS AND PRESERVATION OF GERM PLASM

ANNUAL REPORT - June 30, 1949 - January 31, 1950

#### Regional Funds and Primary Station Establishment

- (a) \$15,000 of 9b3 funds approved by Southern Directors on November 11, 1948 for 1949-1950, for starting one central station and providing travel.
- (b) The Technical Committee was organized February 3, 1949 and designated the Georgia Experiment Station as the Primary Station.
- (c) On March 28, 1949 the Southern Directors approved the Georgia Experiment Station as the Primary Station and approved \$15,000 9b3 funds for the S-9 project for 1949-1950.
- (d) 9b3 funds were made available to the Georgia Experiment Station October 19, 1949 by the Office of Experiment Stations.
- (e) Prospective candidates for Regional Coordinator were considered during the spring and summer of 1949 and Dr. Edwin James was appointed and assumed duties as Coordinator November 1, 1949.

#### Work Accomplished From June 30, 1949 to January 31, 1950

- (a) Survey of plant needs in the South. The Technical Committee members of the ten states and Puerto Rico originally involved in this project, made a survey of plant materials needed in each respective state and Puerto Rico. Priority ratings, based on most urgent state needs, were made by each state to each plant species or crop plant and to each of ten general crop groups. It was the feeling of the Technical Committee and of the Division of Plant Introduction and Exploration that it was desirable to have some expression of what the most urgent needs were in the southern region for new plant materials so that the S-9 project and the Division of Plant Exploration would be of greatest service to the region. The summary of these plant surveys was submitted to the Division of Plant Exploration to guide them in planting future exploration and introductions for plant material. Copies of this plant survey summary were also submitted to each of the southern states. A preliminary survey was also made of plant germ plasm which the individual state felt was in need of preservation in the South. A copy of the Summary of New Plant Needs in the South is appended.
- (b) National Coordinating Committee for the National "New Plants" Project RLB-111 Technical Committee representatives O. E. Sell and H. W. Bennett and Administrative Advisor R. D. Lewis represented the S-9 southern

regional project on the national coordinating committee at its meetings in Ames, Iowa, April 19-20, 1949. Minutes of this meeting and its accomplishments have been distributed and are still available.

- (c) Regional Coordinator. Dr. Edwin James was employed in this capacity effective November 1, 1949, as a joint employee of the Georgia Experiment Station and the Division of Plant Exploration and Introduction B.I.S.A.E.
- (d) National Seed Storage Needs. Regional Coordinator Edwin James made a survey of seed storage needs and policy desires in the South. A summary of the results of this survey in the South has been submitted to the Committee on National seed storage.
- (e) Coordinator's Meeting. Regional Coordinator Edwin James attended a meeting of all regional coordinators of the Nation "New Plants" RMB-111 Project in Washington, D. C.
- (f) All 13 states in the South have been visited by Regional Coordinator Edwin James to promote activities and coordination of the S-9 regional project. As an additional result of these activities, the states of Virginia, South Carolina and Tennessee, who had not previously participated in the regional project, appointed state representatives to the S-9 Technical Committee and are now taking an active part in the regional project.

#### Primary Station Facilities and Activities

The Primary Station was established at Experiment, Georgia when funds became available in October, 1949. Twenty-five acres of land have been set aside for the New Crops Project. Ten acres of this land is located so they can be conveniently irrigated.

Existing greenhouse facilities are being made available for the activities of this project.

A cold storage room of 1,300 cu. feet capacity has been assigned for seed storage. This room is already refrigerated and negotiations are in progress to obtain air dehydrating equipment.

A new tractor and equipment with adequate housing facilities has been provided for use in the New Crops nursery.

Mr. Lee DeYoung of Clemson South Carolina is assuming duties as Technical Assistant as of February 1, 1950.

To provide transportation for the coordinator and minor trucking at the Station, a Sedan Delivery has been purchased for exclusive use on this project.

### Plant Introduction

Five hundred and forty-nine accessions have been distributed in the Southern region through the Primary Station and the Division of Plant Exploration and Introduction.

Over five hundred accessions are on hand at the Primary Station for spring planting. Work began at the Station too late for fall planting. A cover crop has been planted in the nursery area for turning under when plowing is done in the spring.

Twenty-two inventories of plant material introduced under the direction of the Division of Plant Exploration have been distributed to the Technical Committee members and others interested in the Southern states and Puerto Rico

### State Projects

Two state projects have been activated, one supporting the Primary Station in Georgia and one at Texas as follows:

Georgia (Primary Station) - The Introduction, Testing, Multiplying and Preservation of New and Useful Plants of potential Value for Industrial and Other Uses".

Texas - "Introduction, Multiplication, and Determination of Potential Value of New Plants for Industrial and Other Purposes, and for the Preservation of Valuable Corn Plasma of Economic."

Several other projects have been proposed by experiment station staff members but their futherance depends on formal initiation by the directors of the respective experiment stations. The tentative proposals are as follows:

Tennessee - Preservation of Germ Plasma of Pears

Kentucky - (a) Maintenance of Adapted Open-pollinated Varieties of Corn.

(b) Domestic Exploration for, and Evaluation of Semi-native and Native Grasses.

North Carolina - Preservation and Multiplication of Rubus.

Oklahoma - Maintenance of Greater Stocks of Cowpeas.

South Carolina - Maintenance of Genetic Stocks of Orkra and Sesame.

Virginia - Preservation of Genetic Stocks of Apples.

Present Technical Committee Organization

All states in the region are now represented on the Technical Committee with the present membership as follows:

- Alabama Dr. C. F. Simmons
- Arkansas Dr. R. P. Batholomew
- Florida Dr. F. E. Hull (replacing S. C. Litzenberger)
- Georgia Dr. O. E. Sell (Chairman)
- Kentucky Dr. L. M. Josephson
- Louisiana Dr. J. C. Miller
- Mississippi Dr. H. W. Bennett (Secretary, temporary)
- North Carolina Dr. F. D. Cochran (replacing Dr. R. L. Lovvorn,  
Secretary)
- Oklahoma Dr. H. F. Murphy
- Puerto Rico J. Velez Fortuna (replacing E. Molinary-Sales)
- Tennessee J. K. Underwood
- Texas Dr. R. G. Reeves
- Virginia Dr. T. J. Smith

United States Department of Agriculture - (Division of Plant Exploration) - Dr. C. O. Erlanson

Administrative Advisor - Dr. R. D. Lewis

The Executive Committee has lost one member, Dr. R. L. Lovvorn, secretary. Dr. H. W. Bennett is serving temporarily as secretary.

Thus the Executive Committee now consists of:

- Dr. O. E. Sell - Chairman
- Dr. H. W. Bennett - temporary secretary and representative on National Coordinating Committee
- Dr. R. D. Lewis - Administrative Advisor
- Dr. Howard P. Barss represents the Office of Experiment Stations in an advisory capacity.

Work Planned for Fiscal Year July 1, 1950 to June 30, 1951

- (a) Increase and evaluation of introductions on hand and expected.
- (b) Compilation and distribution of seed list of materials increased during season.
- (c) Cataloguing of plant introductions and of plant germ plasm being maintained in the Southern States.
- (d) Completion of seed storage facilities.
- (e) Activation of proposed state projects where possible and where funds permit.
- (f) Begin construction of greenhouse headhouse and office space for coordinator and staff.
- (g) Further visits to experiment stations assisting in new plant evaluation and preservation of plant germ plasm.
- (h) Participate in activities of National Coordinating Committee for RMB-111 project.

Respectfully submitted,

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O. E. Sell, Chairman  
Technical Committee

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Edwin James, S-9 National  
Coordinator

SUMMARY OF CROP GROUP PRIORITY RATINGS  
S-9 Plant Survey of Plant Needs in the South

	: Number of states placing crop group in each of the ten :										: Total :	: Av. score :
	: priority positions below :											
	: Crop group priority position :										:	: priority :
	: 1 :	: 2 :	: 3 :	: 4 :	: 5 :	: 6 :	: 7 :	: 8 :	: 9 :	: 10 :		
Oil bearing	: 1 :	: 1 :	: 1 :	:	: 1 :	:	: 1 :	:	:	:	: 18 :	: 3.6 :
Fiber	:	:	:	:	: 1 :	: 1 :	:	: 1 :	:	:	: 19 :	: 6.3 :
Cash (to replace cotton)	:	:	: 1 :	:	:	:	:	:	:	: 1 :	: 13 :	: 6.5 :
Pasture, forage, cover	: 4 :	: 2 :	: 2 :	: 1 :	:	:	:	:	:	:	: 14 :	: 1.6 :
Small grains	:	: 3 :	: 1 :	: 1 :	:	:	: 2 :	:	:	:	: 27 :	: 3.9 :
Other field crops	: 1 :	: 1 :	:	:	: 1 :	:	:	: 1 :	:	:	: 16 :	: 4.0 :
Tree-fruits & nuts	:	:	:	: 1 :	:	: 2 :	: 1 :	:	: 1 :	:	: 32 :	: 6.4 :
Small fruits	:	:	:	:	: 2 :	: 1 :	:	:	:	:	: 16 :	: 5.3 :
Vegetables	: 1 :	:	: 2 :	: 2 :	: 1 :	:	:	:	:	:	: 20 :	: 3.3 :
Special	:	:	:	:	:	:	: 1 :	: 1 :	:	:	: 14 :	: 7.0 :

- (1) The number of states giving any crop a priority rating was multiplied by the priority position number in which the crop was placed, and the sum of these is the "total scoring".
- (2) The "total score" was divided by the number of states that designated a priority for the particular crop group, to give an average score of priority rating. The smaller this average score, the higher is the crop's priority rating for the region as a whole.

PLANT INTRODUCTIONS RECEIVED AND DISTRIBUTED AT SOUTHERN  
REGION. PRIMARY STATION

Field Crops Genera	Number Received	Number Distributed
Grasses		
Andropogon	20	14
Aristida	1	
Chloris	5	
Digitaria	2	
Eleusine	1	
Eragrostis	2	
Leptochloa	1	
Panicum	1	
Pappophorum	3	
Pennisetum	22	
Pharus	1	
Setaria	1	
Sorghastrum	2	2
Sorghum	159	78
Sporobolis	1	1
Stipa	3	
Stenotapharum	1	
Thrasya	1	
Trachypogon	1	
Trichachne	1	
Trichloris	1	
Zea	20	
Legumes		
Aeschynomena	2	
Calopogonium	1	
Cassia	2	
Crotolaria	3	
Eriosema	2	
Medicago	49	
Onobrychis	14	
Rhynchosia	2	
Sesbania	1	
Fruits & vegetables		
Alium	1	
Brassica	58	58
Lactuca	11	8
Lepidium	44	
Lycopersicon	4	
Pastinacea	1	
Phaseolus	273	27
Pisum	76	2
Rheum	1	
Oil Crops		
Arachis	16	15

PLANT INTRODUCTIONS DISTRIBUTED IN SOUTHERN REGION BY DIVISION  
OF PLANT EXPLORATION AND INTRODUCTION

Genus

Field Crops		Vegetable Crops and Trees	
Grasses		Citrus	1
Agropyron	22	Pinus	1
Andropogon	14		
Axonopus	1	Fiber Crops	
Bromus	19	Crotolaria	9
Chloris	1	Corchorus	18
Paspalum	50	Hibiscus	19
Pennisetum	4	Abutilon	2
Setaria	2	Sesbania	1
Sorghum	18	Linum	3
Stipa	1	Cannabis	2
Zea	34	Urena	1
		Sansevieria	7
Legumes		Plantago	1
Acacia	8	Sida	2
Adesmia	4	Phormium	6
Cajanus	3	Musa	1
Canavalia	1	Ananas	2
Cassia	1	Ramie	15
Cicer	33	Furcraea	2
Crotolaria	6		
Desmodium	14		
Glycine	2		
Indigofera	3		
Lupinus	13		
Medicago	8		
Melilotus	1		
Onobrychis	6		
Phaseolus	16		
Stylosanthes	4		
Tephrosia	2		
Trifolium	41		
Vicia	163		
Other Forage			
Atriplex	12		
Casuarina	1		
Dodonaea	1		
Eremophila	1		
Geijera	1		
Hyppaenea	1		
Pittosporum	1		
Sterculia	1		