

MINUTES  
OF THE  
MEETING OF THE TECHNICAL COMMITTEE  
SOUTHERN REGIONAL COOPERATIVE PROJECT S-9,  
"NEW PLANTS"

MEMORIAL STUDENT CENTER, TEXAS A. & M. COLLEGE  
COLLEGE STATION, TEXAS

JUNE 5-6, 1951

Members Present

Administrative Advisor - R. D. Lewis  
Texas Agr. Exp. Sta.  
College Station, Texas

Regional Coordinator - Edwin James  
Experiment, Georgia

U.S.D.A. - C. O. Erlanson  
Division of Plant Exploration and Introduction  
Beltsville, Maryland

Alabama - Absent

Arkansas - Absent

Florida - Fred H. Hull  
Fla. Agr. Exp. Sta.  
Gainesville, Florida

Georgia - O. E. Sell, Chairman  
Ga. Agr. Exp. Sta.  
Experiment, Georgia

Kentucky - L. M. Josephson  
Ky. Agr. Exp. Sta.  
Lexington, Kentucky

Louisiana - Julian C. Miller  
La. Agr. Exp. Sta.  
Baton Rouge, Louisiana

Mississippi - Absent

North Carolina - Fred D. Cochran, Secretary  
N. C. Agr. Exp. Sta.  
Raleigh, N. C.

Oklahoma - L. L. Ligon  
Okla. Agr. Exp. Sta.  
Stillwater, Oklahoma

Puerto Rico - J. Velez Fortuna  
Insular Agr. Exp. Sta.  
Rio Piedras, P. R.

South Carolina - J. A. Martin  
S. C. Agr. Exp. Sta.  
Clemson College, S. C.

Tennessee - J. K. Underwood  
Tenn. Agr. Exp. Sta.  
Knoxville, Tennessee

Texas	-	R. G. Reeves Texas Agr. Exp. Sta. College Station, Texas
Virginia	-	T. J. Smith Virginia Agr. Exp. Sta. Blacksburg, Virginia

The meeting of the Technical Committee was held in the Student Memorial Center on the campus of Texas A & M College. The meeting was called to order at 9:00 A.M. by Chairman Sell. Dr. Lewis, Administrative Advisor, welcomed the group and introduced cooperators in the Texas project 717 and other members of the staff present. Minutes of the 1949-50 meeting held at Experiment, Georgia were approved and distributed.

### Report on National Coordinating Committee Meeting

Erlanson reviewed annual report for 1950 on Rm:b-111 and briefly discussed plans for future explorations. He pointed out that some domestic explorations were being considered, but additional foreign explorations would be limited due to insufficient funds. Erlanson stated that the Ethiopian exploration is bringing in many forage grasses and legumes.

Motion made by James, and seconded by Reeves that the S-9 Technical Committee go on record as favoring and recommending to the Division of Plant Exploration and Introduction that domestic explorations in U. S. and adjacent countries be made rather than foreign explorations for the year 1951-52. The motion was carried.

Chairman Sell read the report on the handling of cotton introductions and passed out a letter from Dean Lambert to Dr. Barker regarding the handling of introductions and arrangement for coordination with the Southern Regional Project S-9.

Dr. Richmond reported on the procedure in the Cotton and Other Fibers Division of receiving, testing, and maintaining cotton introductions. Erlanson indicated that introduced cottons have to be grown under quarantine. This is handled by Divisions of the Bureau handling the crop. He made a motion that Project S-1 furnish Project S-9 with reports annually on the introductions evaluated, their disposition, provision for maintenance, and future needs. Seconded by Hull - passed.

### National Seed Storage

Sell summarized report by Robertson given at the meeting of the National Coordinating Committee. This report included recommendations on storage facilities needed, personnel, and operating budget. The general objective of the national seed storage is well understood. Materials that go into storage to be decided by screening committees for specific crops in question.

Josephson stated that Southern Corn Conference is preparing a list for storage. It is the duty of the national seed storage to preserve and catalog all material that goes into storage. A discussion of ways and means of expediting the erection of such a storage followed. Erlanson suggested that it will be necessary to prepare and get a bill before Congress. Miller made a motion that a sub-committee be appointed to assist the National Committee in developing the program. This was seconded and passed. The sub-committee consists of the following: J. R. Quinby, Chairman; J. C. Miller; R. C. Potts; and Edwin James. Lewis was asked to notify Robertson of the sub-committee from S-9 that will work with the National Committee.

### Inter-Regional Potato Improvement Project

Cochran gave summary of report of sub-committee meeting at Madison, Wisconsin, May 15-16. This committee was appointed to draft a potato improvement project out-

line that would be coordinated with the National Potato introduction project, IR-1. The committee drew up a project proposal consisting of three sub-projects. These were: (1) Cytogenetics and taxonomy of introductions of wild and cultivated species or varieties of potatoes, (2) Determination of pathological, morphological and physiological characteristics of wild and cultivated species or varieties of potatoes, and (3) Co-ordination of various potato improvement program of the Nation. The proposal was accepted by the National Coordinating Committee and the sub-committee was dissolved by the chair with commendation for its good work. It was the consensus of the National Coordinating Committee that the initiation of the Potato Improvement Project must be a responsibility of the potato breeders, and it is hoped that they will organize their work to correlate it closely with the IR-1 project.

Lewis stated that Southern Directors intended Cochran to be the representative from Southern Region Technical Committee of IR-1 at their meeting at Stillwater, Oklahoma on May 16, 1950. A motion made by Miller that Cochran represent the Southern Region on the Technical Committee of IR-1 was seconded and passed.

### Survey of the Needs for Storing Vegetatively Reproduced Crops

Sell summarized the action taken at the Chicago meetings. At that time a report was submitted by McCann on a survey of these needs. This report emphasized (a) that vegetatively reproduced species and varieties do not lend themselves, in general, to long term storage as in the case of seeds, (b) that the varieties now in the trade are being preserved adequately, with some exceptions, and (c) that collection of this material is too costly to finance under this project.

It was pointed out that certain stations are receiving 9b3 support for the evaluation and preservation of woody materials; namely, South Dakota, Minnesota, Indiana, and Ohio.

In view of the above facts, it was recommended that a program for the inventory classification and publishing of information concerning location of germ plasm collections now being maintained. This would enable research men to locate and utilize wider and more useful selections for breeding and thereby reduce the chances of valuable materials being lost.

### Maintenance of Maize Genetic Stocks

Sell reviewed project submitted by Heinicke and the subsequent discussion at the National Committee meetings. This proposal centered around the maintenance and distribution of the genetic stocks now being carried on at Cornell by a grant from the Rockefeller Foundation. This support terminates on July 1, 1951. A project outline on the collection, maintenance, preservation, and distribution of valuable genetic stocks in maize was presented by Heinicke. This would take the form of an inter-regional project with formal cooperation between the North Central and Northeast Regions. He pointed out since material would be of nationwide interest to corn geneticists, it appears logical that the work should be supported by the National Cooperative Plant Introduction Program, as one of its principal tenets is the preservation of genetic stocks. The National Coordinating Committee went on record as being sympathetic to this tentative project and that this draft be referred to the Technical Committees for Regional Projects S-9, W-6, NC-7, and NE-9 for action.

Erlanson expressed opinion that if S-9 Technical should take any action that it should join in formal cooperation with the Northeast and North Central Regions. Josephson moved that S-9 Technical Committee go on record as favoring continuation

of maize genetics cooperation and that project should be supported on inter-regional basis if funds are available. This was seconded by James and the motion passed. Lewis pointed out that 9b3 funds will probably not be allocated as in IR-1, also that this may not be "new" work as specified in the Research and Marketing Act.

Erlanson suggested the possibility of cooperation with a project being prepared by the National Research Council. Erlanson summarized this new project as follows:

"Under the Division of Biology and Agriculture of the National Research Council a committee was appointed to consider what might be done to preserve the indigenous strains of maize in the Western Hemisphere. This Division has been concerned with the accelerated disappearance of many old varieties due to the inroads of hybrid corn and other improved varieties.

The committee appointed is as follows:

Edgar Anderson	G. H. Stringfield
John O. Drew	Paul Weatherwax
Paul C. Mangelsdorf	C. O. Erlanson
L. J. Stadler	Claud Horn

A project was prepared under the title, "Preservation of indigenous strains of maize", and submitted to the Point IV Program of the Federal Government, asking for \$85,000 to support the collection and maintenance of indigenous varieties of corn in the Western Hemisphere. It was proposed that preservation centers be established at Piracicaba, Brazil; Medellin, Colombia; and Mexico City, Mexico. Also inherent in the plan was the preservation of a duplicate collection in the United States to safeguard the collections held in Latin America centers.

The project for \$85,000 has been approved by the Technical Cooperation Administration (Point IV Program) and now plans are being made for explorations to collect the maize varieties and establish the centers mentioned above. Mr. Erlanson is attempting to bring about coordination between this National Research Council Program and the New Plant Program in a way that will be mutually beneficial to both. It is hoped that duplicate collections of all material can be absorbed in the "New Plants" program so that, should anything happen to the Research Council's program, the material will not be lost to the corn breeders of the Western Hemisphere.

### Sorghum Introductions

James reviewed the contractual agreement with the Chillicothe Sub-station in Texas for the evaluation of sorghum introductions. One hundred and seventy-five foreign introductions have been grown and examined. None of these appeared to have genetic characteristics different from materials already being grown by the station. About 10% of the introductions did not mature seed. Arrangements for growing these "short day" types in south Texas and at the Rockefeller Center in Mexico City have been made. Lewis and Erlanson suggested that it would be advisable to test sorghum introductions in other areas than the ideal locations.

### Reports on State Supporting Projects

Arkansas - Project 323 - "Investigation with new crops" - Report dealt with the testing of eight varieties of castor beans and 25 varieties and strains of sesame. The range in yields of castor beans was 817 to 1420 pounds per acre, while in sesame yields of about 1000 pounds per acre were obtained. Testing on sesame to be continued with the introduction of non-shattering types.

Texas - (Rm 717) - Main station with nine cooperating sub-stations. Preliminary observations were made on 1828 stocks distributed as follows:

Sesame 454	Sunflower 112
Range plants 244	Forage & pasture 105
Sorghum 237	Peanuts 63
Vegetable Crops 180	Ornamental plants 27
Guayule 161	Safflower 23
Fruit crops 152	Other (miscellaneous) 82

About 100 of the 1928 entires were considered promising. Most of the perennial herbs and woody plants are being retained in the program for further evaluation.

Oklahoma - Ligon reported testing of sesame, cowpeas, sunflowers, safflower, chick peas, guar, mung beans, vetch, winter peas, and castor beans.

Georgia - James reported on expenditures and activities at the primary station. The Georgia station added \$500 to his budget to make up over-expenditures. The Horticulture Department is maintaining and evaluating sweet potatoes and ornamentals. Annual report of work at primary station already distributed.

James also submitted a budget proposal for 1951-52. This was as follows:

Operating expenses	\$1000.00
Travel	800.00
Capital outlay	542.00
Personnel services	
Coordinator 1/2 salary	3200.00
Technical assistant	3600.00
Field foreman	1638.00
Field labor	2240.00
Secretary	<u>1980.00</u>
Total	\$15000.00

Lewis stated that \$15,000 is the total 9b3 funds available for the year 1951-52 and that this is last year that RM funds can be carried over.

Miller made motion that budget as submitted by James be approved, seconded by Cochran, passed. It is understood that contractual agreements be taken from operating expenses and capital outlay. The salary increase for the regional coordinator of \$184.80 was approved, one-half of which will come from the Division of Plant Exploration and Introduction. The committee voted to leave the balance in Trust fund for travel with the Texas Station to be used for travel in 1951-52.

#### New State Supporting Projects

(a) Florida - Hull reviewed history of the testing program in Florida. Plant introductions regarded as valuable source of germ plasm and have been used extensively. Expects to submit project at a later date.

(b) Kentucky - Josephson submitted project which was approved by the Committee. He indicated that final approval had not been given by director of his station.

(c) Louisiana - Miller submitted a tentative project outline and discussed the work being conducted on okra and sweet potatoes. James made motion that project be accepted. Seconded and passed.

(d) North Carolina - Cochran reported that project outline on "New Plants Investigations" had been submitted to the Executive Committee. This project involves both agronomic and horticultural crops. It was approved with minor changes.

(e) Puerto Rico - Project written but not yet submitted to the Committee. Work under this project included sesame, okra, sunflower, fiber crops, legume species for soil conservation, pineapple, and papaya.

(f) South Carolina - Martin reviewed work being done on okra, pepper, and sesame and submitted project outline on "Investigation of New or Special Crops". Another project outline on "Evaluation of Ornamental Woody Plants" was submitted as possibility but withdrawn until funds become available.

Lewis suggested that new projects be distributed through regional coordinator. Twenty-five copies should be furnished.

Erlanson discussed the National Cooperative Plant Introduction Program, pointing out that it now comprised six regional projects. A revised statement of the project was approved by the National Coordinating Committee. This statement reviewed the progress of the project, its objectives and future needs. Erlanson also discussed a one-year contract with the Georgia Institute of Technology to make survey of needs of industry. He pointed out that Signal Corps was interested in research on bamboo for use as poles for communication lines. This work has been contracted with Clemson College on processing and drying.

Lewis reviewed development of state supporting projects and expressed opinion that real progress had been made. He also commended the regional coordinator for his excellent work with limited facilities and funds.

#### Other Business

Josephson discussed recommendations from the Southern Corn Conference on maintenance of open pollinated corn. Corn breeders have submitted list of open pollinated varieties that are sold and maintained in each state. The possibilities of drawing up project to be conducted under S-9 was discussed. A motion was made commending the Southern Corn Improvement Conference for their effort toward the maintenance of open pollinated varieties having valuable germ plasm. For financial support the S-9 Technical Committee recommended that the Southern Corn Conference approach the National Research Council for support. It was also suggested that the Committee provide National Seed Storage Committee with the number of lots and the quantity of each to be stored.

Erlanson stated that Kansas, Nebraska, and North Dakota are maintaining open pollinated varieties of corn.

Chairman Sell asked for discussion on next meeting. This decision was left up to the Executive Committee.

#### Election of Officers

A motion by Miller that all officers be re-elected was passed unanimously.