

2. CORN COÖP -- Present Problems and Future Possibilities

A meeting of corn workers was held on the morning of September 12, 1951 at the University of Minnesota (AIBS Meetings) to consider problems in relation to the Corn Coöp. There were 35 in attendance. A summary of the discussions at this meeting, taken largely from notes of E. F. Frolik, and some comments on subsequent developments were prepared for the News Letter by C. R. Burnham. They are as follows:

"The activities and problems of running the Corn Coöp at Cornell were discussed by H. H. Smith. About 220 different genes are at present being preserved and the stocks are replenished every three or four years since no special storage facilities for seed preservation are available. The planting and pollination procedures are handled largely by one graduate assistant. The Department of Plant Breeding furnishes land and labor. Two hundred copies of the News Letter are issued each year and distributed in March to a regular mailing list of about 175. The Coöp has been financed largely through Rockefeller Foundation Grants which in recent years have amounted to \$1900 annually. Of this approximately \$1500 is for a graduate assistantship, \$200 for the News Letter, and \$200 for supplies. About 150 letters are answered each year and approximately 350 gene stocks sent out. Clerical services are furnished by the Department of Plant Breeding.

"Various attempts have been made to get increased and permanent support for the Corn Coöp. It was considered that it would be particularly helpful to add a full time technical assistant to give greater continuity to the program and to extend the work into other desirable phases. Much interest was shown but support did not materialize. Consequently, an attempt has been made to maintain the status quo (with some additions) of the stocks, a holding action until more adequate support could be obtained.

"A regional sub-project under-provisions of the Research and Marketing Act to cover the Maize Genetics Cooperation activities was drawn up for the Northeastern Region and was approved by the NE Technical Committee on New Crops for the fiscal years 1948-49, 1949-50 and 1950-51. No 9B-3 funds were made available for this purpose and neither the NE-9 project nor this sub-project was activated. In November 1950 the NE-9 Technical Committee suggested that the Maize Genetics sub-project be written up as a national project but, since it appeared unlikely that approval would be obtained, a compromise measure was adopted of making it a North Central and Northeastern inter-regional sub-project. A tentative draft of this sub-project was approved by the Northeastern Directors; was given a vote of confidence, insofar as it fits into the general project on the storage and maintenance of valuable germplasm, by the National Coordinating Committee; and was discussed by the directors of the North Central Region.

"Since money was not in prospect by July 1, 1951 another grant from the Rockefeller Foundation was requested and was received for a two-year period ending July 1, 1953. This is definitely a final grant from this source.

"Considerable discussion followed. Comments were added by M. M. Hoover, Director of the introduction center at Ames, Iowa, under R & M New Crops

project funds; and later by D. C. Smith a member of the Technical Committee of the N. C. Region. It was pointed out that the North Central region is the only one in which New Crops Projects has been activated, that the Technical Committee is sympathetic toward the proposed corn genetics program but is limited in what it might do. These projects are set up for the maintenance of stocks; the development of new stocks can not be included. Certain routine things might be handled by the organization at Ames, e.g., sending out of stock lists.

"The importance of adapted stocks for use in different regions was emphasized by several and that the Coöp stocks were not as useful as they might be because of their limited adaptation. In view of this it was suggested that the needs of corn workers in all regions would best be served by a system of regional projects for the maintenance and increase of adapted stocks, but that these would not necessarily replace the present Cornell Coöp project. To the question whether such regional projects might be approved, the answer was that experience with other R & M projects favored regional projects rather than national ones; but that this does not preclude cooperation on a national basis in other ways.

"It was moved, and carried that the group go on record as favoring a regional maintenance program of seed stocks. The need for some kind of coordination was discussed.

"A motion was made and carried that the chairman appoint a committee of 4 to plan a national coordinated program of corn genetics to coordinate all maize genetic work which might develop in different regions. That among other things it make arrangements needed for an annual meeting of corn geneticists and workers at the time of the A.I.B.S. meetings. The meeting adjourned and those from the North Central Region continued in session to consider the problem. After some further discussion, four proposals were made and approved, namely:

1. The maize geneticists of the North Central Region favor the establishment in the area of a project in support of maize genetics research which would have the following objectives among others.

- a) Maintenance of adapted genetic and chromosomal tester stocks.
- b) Development of new combinations of testers.
- c) Determination of linkage relations.
- d) Discovery of new genes.

2. The group suggests that support be sought from NC-7 funds through the appropriate channels for the gemplasm maintenance phases of this project (item a above).

3. The possibilities of support for the other portions of the program from other sources should be explored also.

4. A committee representing the maize geneticists of the North Central area be elected at this meeting and empowered to aid in the organization of the above project and to render such other services as are appropriate.

"A committee of three consisting of J. R. Laughnan (Illinois), Oliver E. Nelson (Purdue), and C. R. Burnham (Minnesota) was elected to aid in the organization of this project. They met at noon (M. M. Rhoades substituted for Laughnan since he was not available). After some discussion, it was the opinion of this committee that Illinois, from the standpoint of its central location, range of adaptation of its stocks, and climate, and that it has leaders and students active in corn genetics research, would be an ideal center for such a project. Rhoades indicated that he would be willing to act as leader of the project if the necessary funds for support could be found and the departments involved and his institution were also interested. Sources of possible support in addition to R & M were also discussed. (Adjourned)"

"A letter from the committee was then sent to Rhoades setting forth the results of the meetings and asking him to ascertain if his institution were interested in the project. Rhoades has informed us that their Agronomy Department and their Associate Director agreed that a maize research center at Illinois is desirable and that they are willing to sponsor a request for 9B-3 Research and Marketing NC-7 funds. A Project Proposal by the Illinois Experiment Station has been written up requesting support for the assembly, increase, and distribution of seed of new introductions, gene stocks, and chromosomal types in maize. This work is to be closely coordinated with the activities of the North Central Primary Introduction Station at Ames, Iowa. The Project is being considered by the North Central Technical Committee and, if approved, calls for each of the Experiment Stations of the North Central Region to make an inventory of its genetic and chromosomal tester strains. From these lists as complete a collection as possible of the available and desirable tester stocks would be assembled and maintained at Illinois.

"If those in the North Central Region will keep this in mind as seed is prepared for this year's work, the foundation may be laid for a better start."

It is planned to schedule a meeting of corn workers during the A.I.B.S. meetings at Ithaca in September and a notice will be printed in the regular program of events.

H. H. Smith