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The National Fruit and Nut Germplasm Repository System[1]

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At the APS-ASHS Symposium on Fruit Germplasm in Guelph in 1974,[3] a group of the scientists of this Society spoke out on the need for a system of national repositories, and presented concepts of the way in which these might be organized. It is my intent here to speak to you in my capacity as Chairman of the National Plant Germplasm Committee to bring you up-to-date on the happenings on this subject which have occurred since 1975. At the same time, I will dwell somewhat on the events leading up to the 1975 Symposium, and do some projection on developments which we anticipate in the year ahead. Please be assured at this point that I will try to lay a foundation in this presentation for what I hope will be a useful open discussion of the aspects of the program.

In 1958, the National Coordinating Committee on New Crops asked three ASHS members—John Einset, Freeman Howlett, and Quentin Zielenski—to prepare a report on the status of fruit germplasm collections. This report brought out strongly the jeopardy in which fruit germplasm collections were placed in this country without national oversight. Specific examples were given of both State Station and USDA actions which resulted in diminished resources. Basically, the report was a compelling plea that a national system of repositories be developed. The National Coordinating Committee took this report and embarked on an effort to get State, USDA, and industry leaders interested in developing a plan. What it had was a concept with which many agreed, but the effort fell short because there was no well-thought-out plan for implementation. We know now that the National Coordinating Committee itself did not take the steps it could have in getting such a plan organized.

In 1974, the National Plant Germplasm Committee was formed. This

[1]Text of a talk presented to the Fruit Breeding Working Group of the American Society for Horticultural Science at the 74th Annual Meeting, Salt Lake City, Utah.
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[3]"Future Germplasm Reserves in Fruit and Nut Crops." *Fruit Varieties Journal,* V. 28, Oct. 1974, 74-99.

group, with representation from research administrators from the State Experiment Stations, USDA, and industry has been given responsibility for an oversight over germplasm needs in the United States. As a first action, this Committee decided to follow through on the subject of Fruit Germplasm Repositories. Several actions were identified that were essential to getting support. For each major fruit category, information was needed on justification, kind of repository in terms of materials, management practices, acreages, buildings, staffing, location, and budget costs. Such a plan required scientist inputs from all parts of the country. Accordingly, a series of seven committees on pome fruits, stone fruits, small fruits, grapes, citrus, nuts, and subtropical fruits was formed, each broadly representative, and each given an identical charge. As you know, ASHS membership was predominant in the scientists participating in these committees. The basic reports were in preparation at the time of your Guelph symposium in 1975.

The Repository Committees reported to the NPGC in November 1975. The reports indicated that the needs of the nation for preservation of fruit germplasm could be met with a system of twelve repositories, and that while in certain instances the same category of fruit might be represented in more than one location, this was due to climatic considerations, and not to need for duplication of collections.

The NPGC immediately met with Committee Chairmen to develop details of how certain repositories could be combined to avoid proliferation of facilities and duplication of staffing needs, i.e. to develop a consolidated facility and staffing budget. Time was of the essence, because the process of budgeting at the National level requires budget action almost two years ahead.

Discussions were initiated in November 1975 with USDA administrators and State Experiment Station Directors. The NPGC has insisted throughout these discussions that the National Fruit and Nut Germplasm Repository System should be jointly managed by SAES and USDA, and with this, also comes the implication that funding will be jointly shared. The basic reasoning for this approach is to insure that no unilateral action by either can jeopardize the national collections.

Without unduly expanding my discussion, I want you to understand that selling to administrators a national plan involving an investment of about five million dollars in capital and a continuing operating budget, five years ahead, of about two and a half million dollars, to be managed and funded jointly by SAES-USDA, is a formidable task.

At the Experiment Station level, this meant meeting with the Committee of Nine, Experiment Station Committee on Organization and Policy (ESCOP), the legislative subcommittee of ESCOP, and with each of the four Regional Associations of Experiment Station Directors. It meant frank and open discussions of the need and concepts of national repositories, locations, alternative choices of funding, and ways in which repositories would be managed. This time we had the answers to all, except where the funds would come from.

On the USDA side of the discussions, the report had full support of the National Program Staff, and meetings were held with the Administrator of ARS, and with the Administrator of CSRS. The total plan was also discussed with them, and their support was solicited.

This brings us to the present situation with regards to repository funding. In the Fiscal 1978 USDA-ARS budget recently passed by Congress, there is one million dollars designated for funding of fruit and nut germ-

plasm repositories. This will be a continuing appropriation. The Experiment Station Directors have chosen to utilize a USDA-CSRS granting route for the repositories, and have a request for Fiscal 1979 in the amount of one and one-half million dollars for fruit and nut repositories. We have assurances that the leadership of the USDA will support this request.

Meanwhile, we have been moving systematically toward activation of the repository plans. Obviously it is not possible to activate all repositories at once. Certain limitations on the use of fund sources from USDA-ARS, and on the anticipated resources from the CSRS grants are requiring a joint budget plan. Construction will be done with ARS funds, as well as some staffing. CSRS funds will be used for maintenance and operations, equipment, and some staffing.

We have decided to start with the Corvallis repository. Accordingly, early this year we initiated planning with the Corvallis staff. Their Repository Committee has been working closely with the architectural staff of the USDA, Western Region. We expect that the site details will be worked out, and the actual construction at the Corvallis repository will be underway early in 1978.

The Repository Committee at Davis has also begun active planning. A meeting will be held with that Committee in late November to discuss location, construction, budget, and timing of phasing in that site.

The Geneva Repository Committee has refined its building, land, and staffing plan, and will be meeting with the Northeastern Regional USDA committee to initiate its planning in the near future.

I wish to shift now to the subject of management and oversight of the Repositories. The content of the repositories is the meat of the program. That is where the action is, and what the whole program is about. The NPGC gave a lot of thought and discussion to the subject of technical management and advice. There can be no simple scheme to involve national input from USDA-SAES-Industry scientists in seven major categories of fruits and nuts. I hope you have had access to the article which Howard Brooks and I had in HortScience 12(4):298-300, 1977. That article describes the Advisory Committees and repository locations.

We are convinced that the seven Technical Advisory Committees, each with basic representation of nine scientists (less for citrus and subtropical fruits), can give the appropriate advice to the curators of the repositories. Provision has been made for appointment of the Advisory Committees by the regional Associations of Experiment Stations and by regional ARS administrators. At least initially, we expect that the Plant Introduction Regional Coordinators will be taking leadership in these advisory committees. The Regional Coordinators are experienced in running coordinated national programs, and their advice will be helpful as the system evolves.

It now seems evident that it will be necessary in 1978 to activate most of the Technical Advisory Committees. The Corvallis location will require input from the Pome Fruit and Small Fruit TAC's. Davis would require Stone Fruit, Nuts, and Grape TAC's. With this in mind, it probably will be best to get all TAC's organized on a standby basis.

It is my intent to open this topic up for general discussion following my next comments. There are two things about this program that should be brought out before this group.

First, the thing that has brought us to the point of activation of fruit and nut germplasm repositories has been a lot of teamwork and determination. I wish to acknowledge and thank those of you who worked on the Committees that gave us a program

to sell. Next I want to acknowledge the full support of the National Plant Germplasm Committee, under whose auspices the cause has been carried in the past two and one-half years. And finally, I want to pay special tribute to Howard Brooks, who has spearheaded the USDA effort, and who, as a member of the National Program Staff, has played a major role in the development of the USDA support funds.

The other point I wish to make in advance of our discussion concerns the implementation phase. For some of those on the sidelines, the events of the past two years have seemed to move slowly. For others, we have taken strides too rapidly. In our fervor in developing national support, we have made some errors in not getting local or regional scientists and administrators briefed soon enough. I want to caution you not to let these kinds of "growing pains" get magnified out of proportion. Our goal of a national system is an ambitious one which will be realized in a few years. We are, in a sense, pioneering in this endeavor. We paint with a broad brush, and must systematically see that the finer details get adequately covered. It is our hope that through communication and forums such as this, we can adequately plan for and anticipate the appropriate next steps in assuring that the National Fruit and Nut Germplasm Repositories do, in fact, fulfill the needs of this nation.

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I certify that the statements made by me above are correct and complete. Loren D. Tukey, Business Manager, September 30, 1977.