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SYMPOSIUM PAPERS AND AUTHORS

Presiding over the symposium were Louis N. Bass and Eric E. Roos.

INTRODUCTION TO THE SYMPOSIUM. Louis N. Bass.

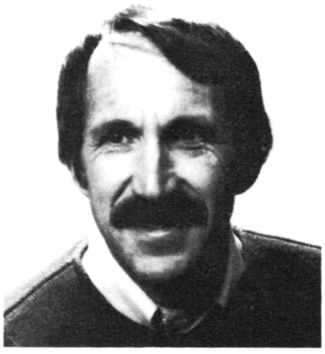
UTILIZATION OF VEGETABLE GERMPLASM. F.A. Bliss.

UTILIZATION OF FRUIT AND NUT GERMPLASM. Maxine M. Thompson.

UTILIZATION OF FLOWER GERMPLASM. Lowell C. Ewart.

UTILIZATION OF WOODY ORNAMENTAL GERMPLASM. Roger D. Uhlinger.

L.N. Bass



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INTRODUCTION TO THE SYMPOSIUM

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Most cultivated crop plants are native to some country other than the United States. Therefore, plant breeders in the United States have to depend heavily upon introduced germplasm. To assure an adequate germplasm base for our plant breeding programs, the U. S. Department of Agriculture, through its Plant Introduction Office, has for many years had a national program for acquisition, preservation, and utilization of germplasm.

At past meetings of ASHS, workshops have been held on germplasm acquisition and preservation, but they have not dealt with germplasm utilization, which constitutes an integral part of the national plant germplasm system. It is true that it is not necessary for every item in a germplasm collection to be used every year or even every 2 or 3 years. It is, however, important that the germplasm holdings be carefully surveyed and those items which show promise for a specific purpose be utilized. Preservation of germplasm for use by future generations of plant breeders is the primary objective of the National Seed Storage Laboratory. Multiplication and preservation of germplasm for present and future plant breeders is a primary objective of the regional plant introduction stations and of curators of special collections such as for small grains, cotton, sorghum, etc.

Several national fruit and nut repositories will be located in areas of the country where the germplasm is most likely to survive environmental conditions and natural pests. These repositories will contain a wide array of primitive and advanced germplasm collected from within the United States and around the world. A repository for strawberries, cranberries, blueberries, pears, filberts, hops, and mints located at Corvallis, Oregon has been established. A repository for stone fruits, grapes, waluts, almonds, and pistachio nuts located at Davis, California will soon be in operation. Other repositories will be developed as construction and operational funds become available.

Utilization is an important aspect of the germplasm system as it is only through utilization of a broad germplasm base that varieties with a diverse genetic background become available for farmers and home gardeners.