Book Reviews

International Board for Plant Genetic Resources (IBPGR) (ed.): Annual Report 1980. X, 107 pp. Rome: IBPGR Executive Secretary/FAO, 1980

Hawkes, J.G.: Crop Genetic Resources Field Collection Manual for Seed Crops, Roots and Tuber Crops, Tree Fruit Crops and Related Wild Species. 37 pp. 3 tabs. Rome: IBPGR and Eucarpia, 1980

Withers, L.A.: Tissue Culture Storage for Genetic Conservation. IBPGR Technical Report. 6 figs., 3 tabs. Rome: IBPGR Secretariat, 1980

IBPGR Working Group on Genetic Resources of *Coffee arabica:* Report. 13 pp. 1 fig. Rome: IBPGR Secretariat, 1980

The International Board for Plant Genetic Resources (IBPGR), established in 1974, is an autonomous, international scientific organization under the aegis of the Consultative Group on International Agricultural Research, and linked with the FAO of the United Nations. The basic function of the IBPGR is to promote the installation of genetic resource centers in order to further the collection, conservation, documentation, evaluation and use of plant germplasm. The IBPGR is composed of 15 members, one from each of the following countries: Australia, Belgium, Denmark, France, Federal Republic of Germany, Italy, Japan, The Netherlands, Norway, Sweden, United Kingdom, the United States of America, as well a representative of the UNEP and the World Bank.

From the Annual Report 1980 it appears that one of the high points of the year was the completion of a world survey of wheat genetic resources. Progress is being made on surveys of forage collections, vegetables and tropical fruits. Regional collections in the Mediterranean, South, South-west and South-east Asia, East and West Africa, as well as in Central and South America have been supported and organized. Crop advisory committees for wheat, maize, rice, sorghum, millets and *Phaseolus* have been established and are now operating. The Board also reports on its usual bureaucratic operations: the assisting, supporting, establishing and continuing of working, consulting, advisory and expert groups.

Special attention is given to the genetic resources of coffee. Genetic erosion of the existing variability of *Coffee arabica* in Ethiopia is substantiated. Maintenance of coffee germplasms as well as exchanges under recommended safe quarantine conditions is advocated. Major germplasm collections are already being held in Ethiopia, Tanzania, Rwanda, Ivory Coast, India, Costa Rica and Indonesia.

The necessity for new in vitro germplasm conservation methods in several plant groups is emphasized. The broadest possible examination of the present level of expertise in the use of tissue culture methods is presented. It is suggested that not all possible methods for genetic conservation should be used, but the broadest possible range of samples should be obtained. The special report refers to such problems as genetic stability, the freeze-thaw process, recovery, and which is the most suitable specimen for storage. Slow, stepwise, or pre-freezing are the most likely methods to meet most of the requirements for freeze-preservation. The IBPGR, together with the European Association for Research on Plant Breeding has produced a nice handly booklet, with J. G. Hawkes from the Botany Department of the University of Birmingham as author, on field sampling. It is a general guide for those people involved in the collecting of genetic resources material from seed crops, root and tuber crops, tree and fruit crops, as well as the wild species related to them. Given the fact that an increasing number of sometimes untrained people are involved in germplasm exploration missions in all parts of the world, this short and clearly written instruction manual can become extremely valuable. One feels the field experience of the author on each page as he draws the attention of potential collecters to orchard and kitchen gardens, markets, shops and farmers' stores. It gives detailed instructions about the size of the samples to be collected, the cleaning and treatment of seeds, how to keep the right stage of maturity, as well as excellent descriptions and storage methods.

With these above mentioned reports IBPGR has documented its function in promoting an international network of genetic resource centers for plant germplasm, and thereby contributing to raising the standard of living and welfare of people throughout the world.

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