

**PLANT GENETIC RESOURCES
RESSOURCES GÉNÉTIQUES VÉGÉTALES
RECURSOS GENETICOS VEGETALES**

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**INTERNATIONAL BOARD FOR PLANT GENETIC RESOURCES
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**FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
ORGANISATION DES NATIONS UNIES POUR L'ALIMENTATION ET L'AGRICULTURE
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THE CROP GENETIC RESOURCES OF TURKEY HAVE BEEN OF MAJOR INTEREST FOR DECADES. SEVERAL PROJECTS HAVE BEEN OPERATIONAL AND THIS ARTICLE SUMMARIZES THE HISTORICAL BACKGROUND AS WELL AS OUTLINING THE CURRENT NATIONAL PROGRAMME.

The NATIONAL PROGRAMME of TURKEY

H. Ayla Sencer

As early as the 1930's, when the first agricultural research stations of the Turkish Republic were established in Istanbul-Yesilkoy, Eskisehir and Ankara, collections of primitive cultivars of major crops, grown in Asia Minor for thousands of years, were made for the initiation of crop improvement programmes. The very first improved crop varieties distributed to the Turkish farmers were selected from these collections. During a period of 15-20 years, thousands of collections were accumulated and their maintenance became difficult objective.

A group of Turkish scientists, who participated in a EUCARPIA meeting held at Cologne, Federal Republic of Germany, in 1958, brought the subject to the attention of the participants; the value of these collections was recognized and their safe-guarding considered important. Upon the recommendations made, the Turkish Government approached the United Nations Special Fund (UNSF) for assistance in 1961. A consultant was sent to Turkey to study and identify the problem. Following these developments, an agreement was signed between the UNSF and the Turkish Government in 1963, for the establishment of a Crop Research and Introduction Centre at Izmir, Turkey, under the UNSF/FAO/TUR-8 Project.

The purpose of this project was the survey, collection, conservation and evaluation of primitive cultivars of crops grown in Turkey as well as their wild relatives, and wild economic plants, besides the introduction of plant material from outside Turkey for crop improvement programmes. Provision was also made for these activities to be extended to the

neighbouring countries.

The project became operational in June 1964 and the first phase was extended to 1973.

In 1971, a review mission made a strong recommendation for the activities of the Project to be followed by a regional one to enable similar operations in neighbouring countries. Actions by the UNDP with SIDA funds and later by the IBPGR through FAO resulted in the TF/REM 5 (SWE) and TF/REM 31 (IBPGR) regional projects.

The "Plant Genetic Resources Project" of Turkey, which was prepared in 1975-76, forms a part of the regional effort for the exploration, documentation and conservation of plant genetic resources in South-west Asia.

The project is located at the Regional Agricultural Research Institute, ARARI, at Menemen, Izmir. Overall planning and coordination of the activities are made by the centre. The programmes of the project are revised annually by the Research Committees of ARARI and the Aegean Region, as well as a Plant Genetic Resources Working Group, which consists of project leaders, directors of crop specific research institutes, representatives from the General Directorate of Agricultural Research and from the Universities.

The activities undertaken by the staff of the project centre include systematic evaluation of the collections; storage and processing of plant genetic resources data; long-term and short-term conservation of seed collections, tissue culture multipli-

cation and conservation and introduction. Project activities such as collection, evaluation, rejuvenation and multiplication of seed collections are coordinated and conducted under eight separate programmes, i.e. cereals, food legumes, forage and fodder plants, vegetables, industrial crops, tree-fruits and vines, ornamental plants and other economic plant genetic resources programmes. These programmes are coordinated by the staff of the centre and conducted in cooperation with scientists engaged with other research programmes carried out at ARARI and other agricultural research institutes. So far, cooperation with scientists from outside Turkey has only been possible for collecting and obtaining seeds from ARARI.

ARARI hosts collectors from outside Turkey every year and sends out sub-samples of its collections upon request. However, it is strongly felt that, so far, ARARI has been giving help to scientists by providing expertise, collections and data without any feed-back. It is planned that cooperation with the on-going Genetic Resources Project of Turkey should be based on joint projects covering not only joint expeditions for collecting but also the subsequent evaluation of the collections, jointly made or received from ARARI, by scientists in and outside Turkey. Through these projects ARARI expects to accumulate evaluation data of its collections and lines with unique characteristics can be identified and selected from the original collections in long-term storage.

The activities (see diagram) of the on-going Plant Genetic Resources Project in Turkey from 1976 onwards can be summarized as follows:

Exploration

In June-July and August-September 1976, two expeditions visited the Southeast and Northeast regions of Turkey to collect wild and glumaceous, diploid and tetraploid wheat species. Collections of primitive cultivars of other crops in areas which were inaccessible previously, *Sanguisorba minor* Scop. and *Onobrychis* spp. were also made during these expeditions. During a joint Turkish-Japanese expedition to the Black Sea coast, C. Anatolia and southeastern Turkey in July 1976, additional collections of wild *Triticum* and *Aegilops* spp., *Sangui-*

sorba minor Scop. and *Onobrychis* spp. were made.

An inventory of the existing tree-fruit and vine collections was made during 1976 by visiting the nurseries of all agricultural institutions and Universities, with a view to bringing the existing tree-fruit and vine collections together in conservation nurseries in the near future.

During a joint Turkish-Japanese expedition in August-September 1977, further collections of *Dactylis glomerata* L. and some other forage species were made in C. Anatolia, northwest of the Black Sea region, Marmara and the Aegean regions.

During June 1978, a joint Turkish-Canadian team visited the Aegean, Mediterranean, southeastern and eastern regions of Turkey, C. Anatolia and collections of *Triticum*, *Hordeum*, *Avena* and *Aegilops* spp. were made. During the same period and in the same areas, a joint ARARI-ICARDA team, which was operating in close contact with the Turkish-Canadian team, made further collections of annual forage legumes, i.e. *Medicago*, *Onobrychis*, *Vicia*, *Lathyrus*, *Trifolium* spp. and a few others. In July-August 1978, a Turkish team visited the southeastern region of Turkey to make further collections of primitive vegetable, food legume and tobacco cultivars.

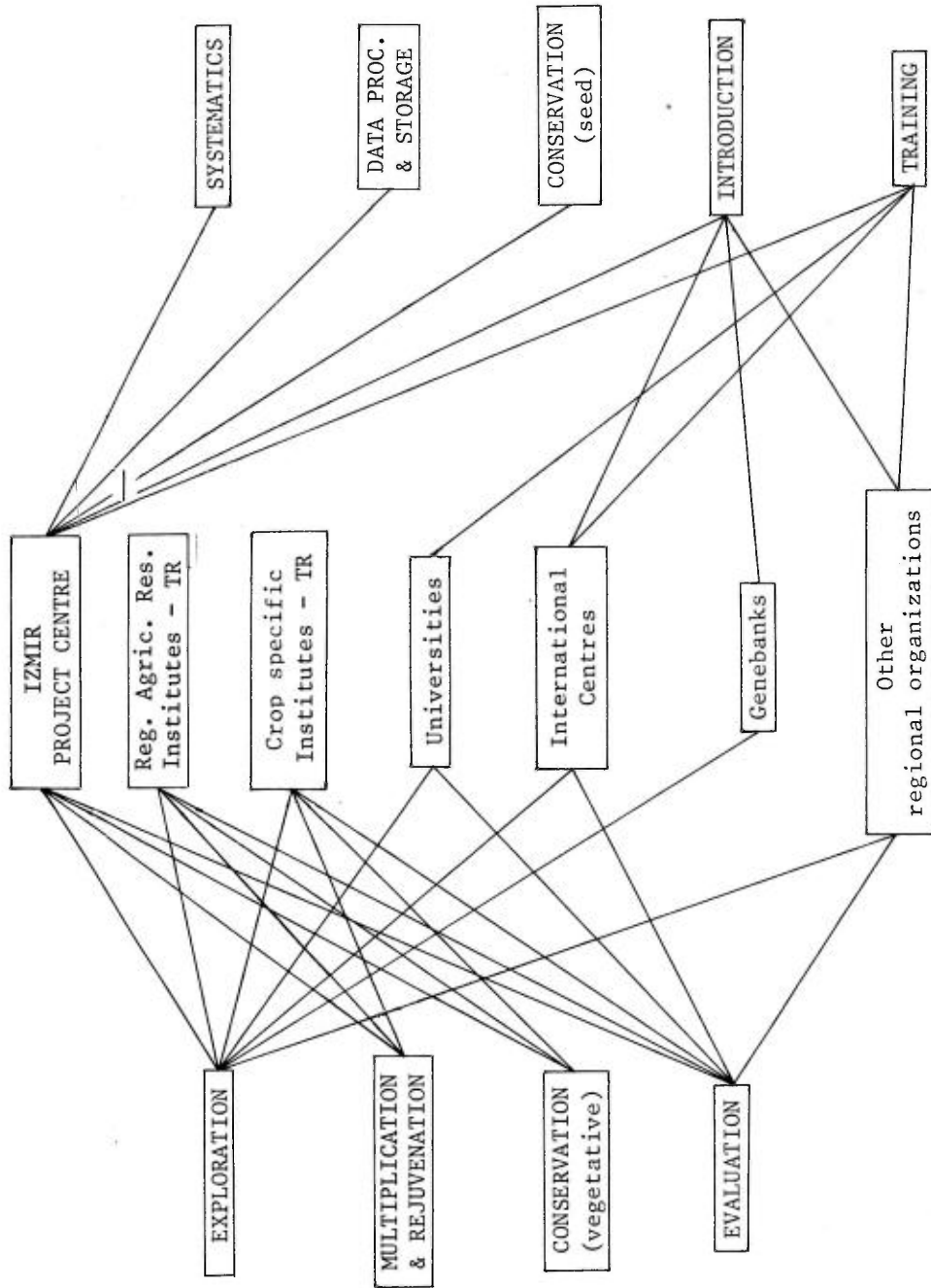
Survey and preliminary evaluation of native tree-fruit varieties grown in the Aegean region has been going on since May 1978.

Résumé

Cet article contient un résumé historique succinct des projets qui ont été mis en oeuvre à Smyrne. Il présente les principales attributions du personnel du programme national, notamment en ce qui concerne les missions d'exploration et les rapports avec d'autres institutions pour les questions d'évaluation et de multiplication.

Resumen

El artículo ofrece un resumen histórico condensado de los proyectos que se han ido realizando en Esmirna. Se describen en líneas generales las tareas principales del personal del programa nacional, con especial referencia a las misiones de exploración y a los enlaces con otras instituciones para evaluación y multiplicación.



Activities of the Plant Genetic Resources Project of Turkey and the cooperation scheme