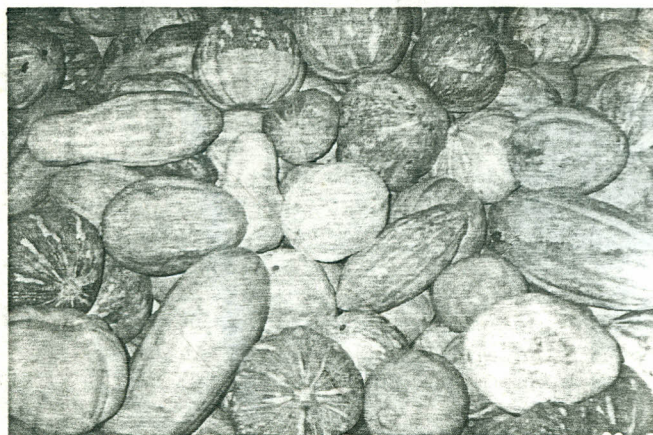


A JICA project for the improvement of vegetable production in Brazil was implemented five years ago at CNPH/EMBRAPA (National Vegetable Research Center/Brazil Agriculture Research Corporation), Brasilia, located in the Central Plateau which is characterized by a sub-tropical semi-arid vegetation (Cerrado). The studies covered a five year period.

Squash/pumpkin is cultivated over about 31,000 ha with a production of 409,000t, and numerous land races and imported hybrid cultivars are planted. Squash/pumpkin is generally designated as Abobora and/or Jerimum in Brazil. However, squash/pumpkin botanically consists of *Cucurbita moschata* which is called Abobora, *Cucurbita maxima* which is called Moranga, *Cucurbita pepo* with round shaped fruits, which is called Mogango, and Italian type zucchini or courgette which is called Abobrinha.

In the 1960's, the inter-specific hybrid cultivar 'Tetsukabuto' was introduced from Japan for the first time into Minas Gerais State. Soon, this cultivar became popular and its cultivation has spread throughout Brazil. This cultivar has significantly contributed to the expansion of cultivation of squash/pumpkin due to its wide adaptability to various climatic conditions as well



Wide diversity Jerimum leite (*C. moschata*) genetic resources at Recife, Pernambuco.

as storability/long shelf life. However, there was a concern that the rapid expansion of the new cultivar may lead to the extinction of Brazilian land races. Therefore, a special project was initiated for the conservation of indigenous *Cucurbita* species. JICA expert team and their counterparts carried out expeditions three times in the Northeastern Region of Brazil, in collaboration with CENARGEN/EMBRAPA (National Agriculture Genetic Resources and Biotechnology Center), where exotic hybrids have not yet been introduced. 149 accessions of *Cucurbita maxima* and 69 accessions of *Cucurbita moschata* were collected during these expeditions, and preserved at CNPH. The evaluation and documentation of these accessions were undertaken by Dr. Jose Flavio Lopes and his staff. Some accessions were found to be useful due to their high tolerance to diseases and pests such as *Phytophthora* rot, papaya ringspot virus-w strain, powdery mildew and white fly. As of 1991, the number of accessions of *C. moschata* at CNPH amounted to 480, *C. maxima* to 130, and *C. lundelliana* to 22. At CENARGEN, 142 accessions of *C. moschata* and 130 of *C. maxima*, as well as 198 accessions of *C. pepo* were preserved as of 1989. Visoza University and San Paulo University are also actively engaged in this field.

During these expeditions, it was found that there are abundant indigenous varieties in Brazil, and that they are on the verge of extinction due to the rapid increase of monoculture of exotic hybrid cultivars even in areas with extensive agriculture.

Under these circumstances, bilateral cooperation projects will be implemented with Brazilian researchers in the Amazon Region, South Mato Grosso state and Tocantin state, to promote Brazilian agriculture.

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### Letter from the Editor

A new project on genetic resources sponsored by JICA is scheduled to be implemented in the Islamic Republic of Pakistan on June 1, 1993. The project aims at strengthening the activities and developing effective methods through transfer of technology for the collection, evaluation, preservation, documentation and distribution of genetic resources of crop plants. The buildings for the project were constructed with a grant-in-aid from the Japanese Government.

A technical manual on cryopreservation will soon be issued. The authors are Drs. A. Sakai (world famous expert on cryopreservation), S. Kobayashi, T. Niino, T. Yamada and A. Uragami.

We would like to invite articles for contribution to this newsletter.

(Torao Goto)