THE INAUGURAL ISSUE

Towards exploration, collection and preservation of germplasm of cultivated plants and their wild relatives.

World's longest paddy grains of DOKRA-DOKRI rice variety (14.45 mm.)

Issued by

Dr. R. H. Richharia, Ex-Director
Central Rice Research Institute, Cuttack
Madhya Pradesh Rice Research Institute, Raipur &
Ex-Agriculture Advisor, M. P. Government.
An inside view of the Rice germplasm Bank at Raipur, established by the author with facilities provided by M. P. Government in Agriculture Department (1971-78)
**The establishment of:**

**J. Richharia Germplasm Research Bank**

**I A PROGRAMME**

The Germplasm Research Bank and its centres are concerned with academic activities, relating to the collection and classification of germplasm of cultivated plants and their related wild Taxa, so intimately connected with our heritage wealth and culture, fast disappearing. It is with this aim that the "Crop Gazetteers" will be compiled and herbarium preserved for the benefit of the present and future generations.

Many cultivated crops have Originated in India, such as rice and Sugarcane etc. "Among the many products of civilization that India has given to the world, the cultivation of sugarcane with the manufacture of Sugar and allied products, from its juice is one of the most important" (Sarkar, 1938)*

The richness of the germplasm in India is indicated from the following recorded figures:

<table>
<thead>
<tr>
<th>Crop</th>
<th>No. of Cultivars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>43,000</td>
</tr>
<tr>
<td>Jowar</td>
<td>16,000</td>
</tr>
<tr>
<td>Pulses</td>
<td>6,000</td>
</tr>
<tr>
<td>Lesser millets</td>
<td>2,500</td>
</tr>
<tr>
<td>Bajra</td>
<td>2,000</td>
</tr>
</tbody>
</table>

**II Recommendations of World Organizations and their involvement:**

The publication of the Book entitled "Crop genetic resources for today and tomorrow" edited by World renowned Scientists, O. H. Frankel and J. G. Hawkes in 1975 (Cambridge University Press, U. K.) is an excellent exposition of the modern trend towards collection, conservation and utilization of the fast disappearing indigenous germplasm of different crop plants and their wild relatives in the world. This has inspired me to create an organisation as an individual's efforts, enabling me to continue my pursuit so entertaining to me, which will enable me to make my humble contribution towards this important subject and noble cause, considered by the Director General of F. A. O. (1973) Dr. A H. Boerma

*Sarkar, B. N. (1938). A Short history of Sugarcane Cultivation in Bihar upto the middle of the 19th Century.  
* Agric. Live-Stk. India, 8 : 167 - 173.
as of highest priority. Strongly worded recommendations were carried at the United Nations Environment Conference at Stockholm in 1972, "Urging Governments and United Nations agencies to save and preserve irreplaceable genetic resources for the good of present and future generations "(c.f. Frankel and Hawkes, 1975)"

Realising the gravity of the situations, arising in many parts of the world, international organizations have taken the lead on global basis, such as for rice, the International Rice Research Institute, Laos, Banos in the Philippines and F. A. O. agencies, towards collection of indigenous germplasm, storing it and keeping it rejuvenated for use in the future. The International biological programmes are also involved in this pursuit. Spirited public men, individuals and philanthropic organisations may come forward to extend their helping hand, in this noble cause.

III Centres of activities:

The germplasm reasearch bank neither needs big palacial buildings for the type of field and exploration work under my planning nor the sophisticated equipment, as it is intended to maintain the cultivars in rejuvenated condition under their natural habit at with environmental manipulation, at different places, by establishing "Composite treasuries" with the Bank's two main centres Viz., (1) A centre near Bhopal at village, Sagoni Kala, where I have fixed a piece of ten acres of well-developed agricultural land with full irrigation facilities which I possess and on this account I am grateful to the authorities of the State Bank of India Bhopal, who readily agreed to advance a loan for developing farm facilities. & (2) A centre in Chhattisgarh Zone where germplasm diversity is Nature's law, not only of rice but also of other cultivated plants and there wild relatives, such as the lesser millets and root crops in Bastar region,

The most original germplasm of different crops exists in the tribal areas (districts) where rare types still persist. The first preference, therefore, will go to the areas, shown below (Fig. I) where "Composite germplasm treasuries" will be organised first.

1. Jagdalpur
2. Abuzmad (Orcha)
3. Raipur (Amlipadar)
4. Bilaspur (Pondi Uproda)
5. Raigarh (Sanna)
6. Surguja (Ambikapur)
7. Surguja (Samri Pat)
8. Sidhi
9. Mandla
10. Chhindwara (Tamia)
11. Betul (Bhippur)
12. Jhabua
The bank will also establish contacts with International Organizations through the Central Institutes in respect of exchange of germplasm.

IV. National Parks for protecting National Wild Plant Life.

National Parks have been established to protect the wild life. The time is now ripe to think in those terms to protect the wild forms of cultivated plants as well by establishing the national parks for protecting related wild plant life. At places dual purpose national parks can also be established and the existing ones considered to serve as dual purpose.
V. LIBRARY

I possess a fairly good personal library of scientific books and scientific journals (over 2000) to make a beginning. I am a life member of seven societies and getting the following journals regularly: (1) Indian Journal of Plant Breeding and Genetics, (2) Indian Journal of Botany, (3) Indian Agriculturist, (4) Journal of Royal Society of Arts, (U. K.), (5) Oryza, (6) Journal of Bihar Academy of Agricultural Sciences, & (7) Journal of Fitzwilliam House, Cambridge, U K.

A view of fields at the Rice germplasm centre, Baronda, showing high yielding dwarf rice varieties, selected from indigenous types, collected during our botanical exploration.