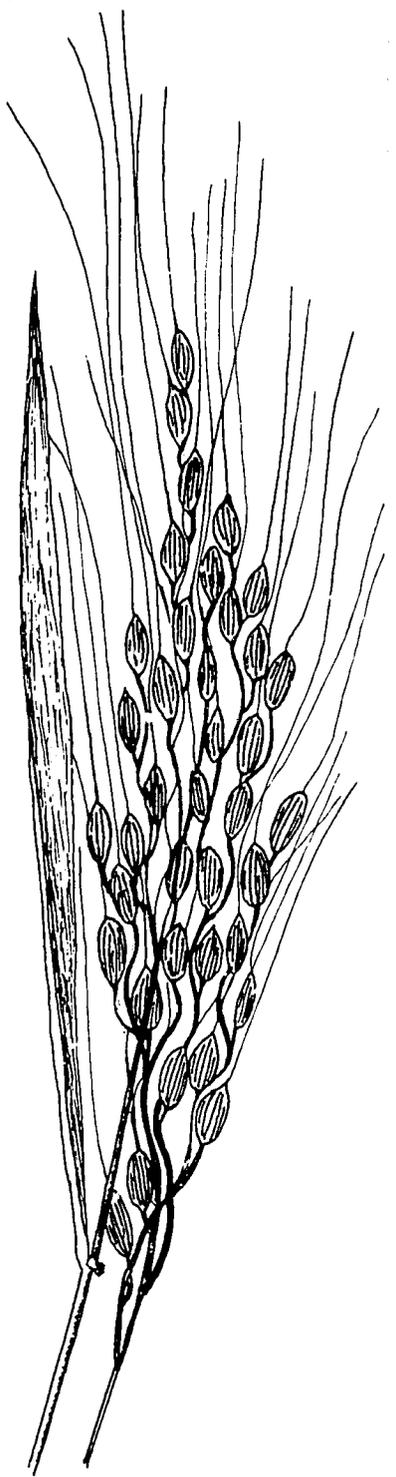
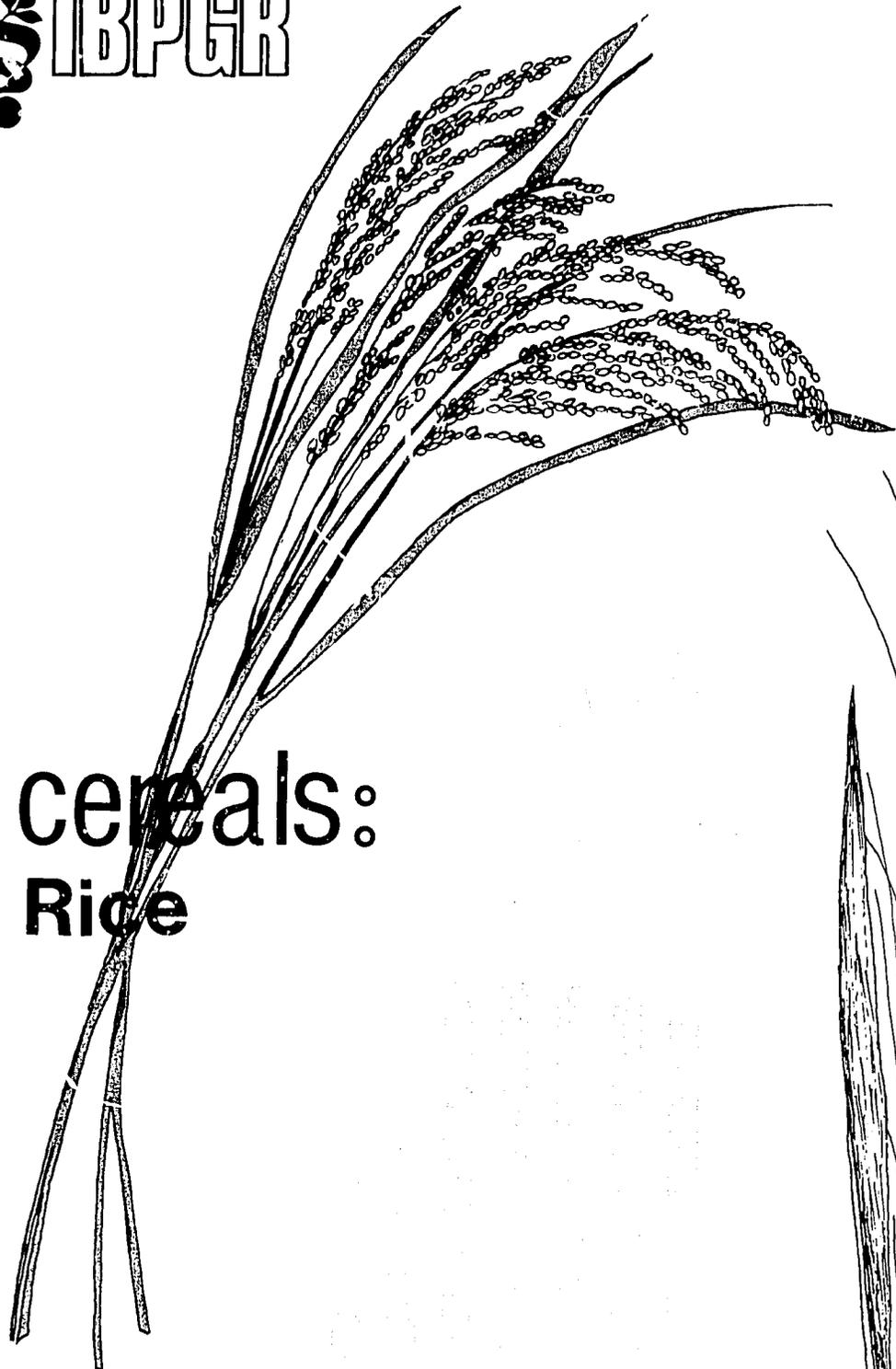




DIRECTORY OF GERMPASM COLLECTIONS

cereals:
Rice



AGP: IBPGR/80/109
December 1980

INTERNATIONAL BOARD FOR PLANT GENETIC RESOURCES

DIRECTORY OF GERMPLASM COLLECTIONS

3. CEREALS

III. RICE

by

Jane Toll, N. Murthi Anishetty and G. Ayad

IBPGR Secretariat
Rome, 1980

The International Board for Plant Genetic Resources (IBPGR) is an autonomous, international, scientific organization under the aegis of the Consultative Group on International Agricultural Research (CGIAR). The IBPGR, is composed of 15 members from 13 countries; its Executive Secretariat is provided by the Food and Agriculture Organisation of the United Nations. The basic function of the IBPGR, as defined by the Consultative Group, is to promote an international network of genetic resources centres to further the collection, conservation, documentation, evaluation and use of plant germplasm and thereby contribute to raising the standard of living and welfare of people throughout the world. The Consultative Group mobilizes financial support from its members to meet the budgetary requirements of the Board.

IBPGR Secretariat
Plant Production and Protection Division
Food and Agriculture Organization of the United Nations
Via delle Terme di Caracalla, Rome 00100, Italy

PREFACE

With the development of a global network of genetic resources activities it has become increasingly apparent that there is an information gap relating to what material is held where. This gap will persist until all major collections are adequately documented and information as well as samples readily exchanged.

The IBPGR has therefore agreed to issue directories of collections which should not only be useful to scientists involved with genetic resources but also should stimulate curators to provide more detailed information.

The data included in these directories are, of necessity, incomplete: we have relied upon answers to questionnaires, data held in the Secretariat and in published reports, indices seminar and verbal communications. It is our intention to keep the directories under continuing review and to issue revisions as and when necessary. All data are being computerized so that ultimately we can answer queries more readily. We apologize to those centres which should perhaps be included; but we have attempted to incorporate information on all major holdings. Additions and corrections will be welcomed.

J.T. Williams
Executive Secretary

AFGHANISTAN

Plant Genetic Resources Unit
Ministry of Agriculture and Land Reform
Darul Aman Research Station
Kabul

Curator/person in charge: M.A. Rashid
Details of samples: *O. sativa*, 102 landraces
Geographical representation: Afghanistan
Evaluation and documentation: Partial and manual
Storage: Medium-term. Seeds stored in cans at 0°C and 35% R.H.

ARGENTINA

Estacion Experimental Agropecuaria
INTA, Manfredi
Córdoba

Curator/person in charge: R. Mantironi/J.H. Larocca
Details of samples: 3200
Geographical representation: Unspecified
Evaluation and documentation: Partial and manual
Storage: Active collection

BANGLADESH

Bangladesh Rice Research Institute
Joydebpur
Dacca

Curator/person in charge: S.M.H. Zaman
Details of samples: *O. sativa*, 5100 + landraces
Geographical representation: Bangladesh
Evaluation and documentation: Complete for cold and photoperiod sensitivity
Storage: Medium-term. Seeds with 10% m.c. stored in paper envelopes inside glass jars containing silica at 5°C

BRAZIL

Empresa Brasileira de Pesquisa
Agropecuária (EMBRAPA)
Centro Nacional de Recursos
Genéticos (CENARGEN)
Cx. P. 10.2372
70.000 Brasília D.F.

Curator/person in charge: D. Giacometti (National Coordinator for Genetic Resources)

Details of samples: *O. sativa*, 463 landraces

Geographical representation: Brazil

Evaluation and documentation:

Storage: As an active collection at:
Banco Activo de Germoplasma - Arroz
Cx. P. 179
74.000 - Goiânia - GO
Curator: E.H. Neves Vieira
The collection will be duplicated at CENARGEN, Brasília where both long-term (-18°C) and medium-term (-1°C) stores will be operational in 1981. CENARGEN coordinates the germplasm activities of Brazil

BURMA

Agricultural Research Institute
Central Farm
Hwambi Extension Service
Yezin

Curator/person in charge: U. Ohn Kyan

Geographical representation: Burma

Evaluation and documentation: Partial for adaptability

Storage: Medium-term (4-5°C)

CHINA

Crop Germplasm Institute (CGI)
Chinese Academy of Agricultural Sciences (CAAS)
Beijing

Curator/person in charge: Xu Yun-Tian

Details of samples: *O. sativa* details unknown. 1000 accessions of wild rice including *O. sativa* var. *spontanewm*, *O. meyeriana* and *O. officinalis*

Geographical representation: China. Recollection of local varieties of *O. sativa* in progress. Wild rice species collected recently in Yunnan, Guangdong and Guangxi provinces

Evaluation and documentation: Partial for quality, tolerance to low temperature, resistance to lodging and rice blast

Storage: Active at institutes of the CAAS and at provincial agricultural academies. The CGI coordinates national germplasm activities. A medium-term store is under construction at Beijing and a long-term store is planned. This national genebank will hold duplicates of all germplasm collections. Germplasm exchange with IRRI, Manila, Philippines is being developed

CHINA

Taiwan Agricultural Research Institute
Taipei

Curator/person in charge:

Details of samples: 2500 samples of *O. sativa*

Geographical representation: Unspecified

Evaluation and documentation: Partial and manual

Storage: Active collection

COLOMBIA

Instituto Colombiano Agropecuario (ICA)
Tibaitatá
AA 151123 El Dorado
Bogotá

Curator/person in charge: L.E. Lopez

Details of samples: *Oryza* spp. 500 cultivars, 500 breeding lines

Geographical representation: Colombia (about 10% of cultivars) and many other countries

Evaluation and documentation: Partial and computerized

Storage: 12°C and 65% R.H. Duplicates at IRRI

FRANCE

Institut de Recherches Agronomiques
Tropicales (IRAT)
110 Rue de l'Université
75340 Paris, Cedex 07

- and -

Office de la Recherche Scientifique et
Technique Outre-Mer (ORSTOM)
24 Rue Bayard,
75008 Paris

Curator/person in charge: M. Jacquot (IRAT)
M.J. Pernes (ORSTOM)

Details of samples: 996 *O. sativa*, 636 *O. glaberrima*,
292 *O. breviligulata*, 158 *O. longistaminata*,
36 *Oryza* spp. landraces and wild and weedy
species. Collected by IRAT/ORSTOM from
1974-79

Geographical representation: Cameroun, Chad, Gambia, Guinea, Guinea-
Bissau, Ivory Coast, Mali, Senegal,
Tanzania, Upper Volta and Zambia (including
bordering areas of Botswana and Malawi)

Evaluation and documentation: In progress at IRAT and ORSTOM research
centres in France and Ivory Coast for
agronomic characters and disease resistance

Storage: Medium-term storage (5°C, 30% R.H.) at
ORSTOM, Bondy and active collections in the
Ivory Coast at ORSTOM, Adiopodoumé, BP V-51,
Abidjan and IRAT, B.P. 635, Bouake.
Duplicates at IITA, Ibadan, Nigeria; IRRI,
Manila, Philippines and WARDA, Monrovia,
Liberia

GHANA

Crops Research Institute
Plant Introduction and Exploration Section
Agricultural Research Station
Bunso

Curator/person in charge: H.L.O. Holloway
Details of samples: *Oryza* spp. 109 landraces
Geographical representation: Ghana
Evaluation and documentation: Partial and manual
Storage: Active. Duplicates at Agricultural
Research Station, Okumaning, Ghana and
IITA, Ibadan, Nigeria

INDIA

Central Rice Research Institute (CRRI)
Cuttack - 6

Curator/person in charge: J.K. Roy
Details of samples: *Oryza* spp. 14905 samples of landraces,
cultivars and wild species including
AC numbers 3564
JBS " 1368
MNP " 759
ARC " 5528
NC8 " 1431
Genetic lines markers 2055
Geographical representation: Mostly India
Evaluation and documentation: Complete for 6000 samples for
enviromental stresses, protein level and
partial for disease and pest resistance
(in total 60 characters)
Storage: Medium-term. Seeds stored at 1-5°C
and 50% R.H. Major collections have been
sent to IRRI, USSR, USA, Viet Nam, WARDA
and various agricultural universities
and research institutes in India (in total
21 institutions holding 40911 samples).
National Bureau of Plant Genetic Resources
(NBPGR), IARI Campus, New Delhi coordinates
the national germplasm activities
(Director: K.L. Mehra)

INDIA

National Bureau of Plant Genetic
Resources (NBPGR)
Indian Agricultural Research Institute
(IARI) Campus
New Delhi 110012

Curator/person in charge: K.L. Mehra

Details of samples: *Oryza* spp. 33833 landraces, cultivars and wild species. (Includes duplicates of CRRI, Cuttack, and other Indian collections)

Geographical representation: India and introductions

Evaluation and documentation: Partial and manual

Storage: Medium-term (-5°C) and active collections at many research stations and agricultural universities throughout India. A long-term seed store is planned for NBPGR

INDONESIA

Germplasm Unit
Central Research Institute for Agriculture
Jalan Merdeka 99
Bogor

Curator/person in charge: B.H. Siwi

Details of samples: *O. sativa*, 5917 landraces and cultivars including races *indica* and *javanica*

Geographical representation: Indonesia and other south and southeast Asian countries

Evaluation and documentation: Partial for resistance to brown plant hopper

Storage: Medium-term. Refrigerator at 4°C. Duplicates at IRRI, Manila, Philippines

IRAN

Seed and Plant Improvement Institute (SPII)
Plant Genetic Resources Division
Karaj

Curator/person in charge:	P. Parvaneh
Details of samples:	<i>O. sativa</i> , 495 landraces and cultivars
Geographical representation:	Iran
Evaluation and documentation:	Partial for blast resistance
Storage:	Short-term. Seeds stored in paper bags at room temperature and rejuvenated yearly. Medium-term store under construction

IRAQ

Agricultural Research Centre (ARC)
Plant Genetic Resources Unit
Abu Ghraib
Bagdad

Curator/person in charge:	A.T. Sharif
Details of samples:	<i>O. sativa</i> , 29 landraces and cultivars
Geographical representation:	Iraq
Evaluation and documentation:	Partial and manual
Storage:	Medium-term. Seeds stored at 5-10°C

JAPAN

National Institute of Agricultural
Sciences (NIAS)
Division of Genetics
Seed Storage Laboratory
Kannon-dai 3.1.1.
Yatabe-machi
Tsukuba-gun
Ibaraki-ken 300-21

Curator/person in charge:

K. Kumagai

Details of samples:

O. saliva, 18000 landraces and cultivars
(90% *japonica* and 10% *indica* and *javanica*).
O. glaberrima, 420 and *Oryza* spp. 500
wild species

Geographical representation:

World-wide

Evaluation and documentation:

Complete for heading date, culm length,
panicle length, length and width of grain,
lodging resistance, adaptability and
partial for disease and pest resistance.
Computerization in progress

Storage:

Seeds with 6-7% m.c. stored in vacuum
sealed cans at -10°C for long-term
storage and in screw lid cans at -1°C
and 35% R.H. for medium-term storage.
Duplicates at Kyushu University, Kyushu,
Japan and several other agricultural
stations throughout Japan

KOREA, REPUBLIC OF

Agricultural Experiment Station
249 Seodun dong
Suweon 6191-3

Curator/person in charge:

G.S. Chung

Details of samples:

Oryza spp. 4227 landraces and introduced
cultivars

Geographical representation:

Korea and introductions

Evaluation and documentation:

Korean material complete for blast
resistance and cold tolerance

Storage:

Seeds stored in aluminium cans at -10°C
and 50% R.H. for long-term storage and
at -1°C and 60% R.H. for medium-term
storage

LIBERIA

Central Agricultural Experiment Station (CAES)
Suakoko
Bong County

Curator/person in charge:

Details of samples: 409 *O. sativa*, 60 *O. glaberrima*,
landraces

Geographical representation: Liberia

Evaluation and documentation: Complete for plant height, tillering,
growth duration, photoperiod sensitivity,
grain size and shape

Storage: Active. Duplicated at IITA, Ibadan,
Nigeria

LIBERIA

West Africa Rice Development
Association (WARDA)
E.J. Roye Memorial Building
Ashum Street
P.O. Box 1019
Monrovia

Curator/person in charge: B.A.C. Enyi

Details of samples: *O. sativa*, *O. glaberrima*, *O. barthii*,
O. longistaminata and *Oryza* spp. 7650
landraces and wild species

Geographical representation: Cameroun, Chad, Ivory Coast, Mali,
Nigeria, Senegal

Evaluation and documentation: Partial for morphological and agronomical
characters

Storage: Cold room (21°C, 60% R.H.). Medium-term
store (0-5°C and 50-60% R.H.) under con-
struction. Duplicates at ORSTOM/IRAT,
Ivory Coast, IITA, Ibadan, Nigeria and
IRRI, Manila, Philippines

MADAGASCAR

Institut de Recherches Agronomiques
B.P. 1444
Tananarive

Curator/person in charge: M. Arrandean
Details of samples: 2000 samples of *O. sativa*
Geographical representation: Unspecified
Evaluation and documentation: Partial and manual
Storage: Action collection. Duplicates at IRAT,
France

MALAWI

Chitedze Agricultural Research Station
P.O. Box 158
Lilongwe

Curator/person in charge: P. Sibale
Details of samples: *Oryza* spp. 1400 landraces and cultivars
including 550 indigenous varieties
Geographical representation: Ivory Coast, Kenya, Malawi, Senegal,
Sierra Leone; Bangladesh, China, India,
Indonesia, Japan, Malaysia, Pakistan,
Sri Lanka, Thailand; El Salvador, Surinam,
USA
Evaluation and documentation: Partial for yield components and disease
resistance
Storage: Medium-term. Seeds stored in tins, packets
or jars at 6-10°C and 50% R.H. Some
duplicates at IITA, Ibadan, Nigeria

MALAYSIA

Koitotron Seed Bank
Rice Research Branch
Bumbong Lima
Penang

Curator/person in charge:

M.K. Bin Mohammed Zain

Details of samples:

Oryza, spp. 3130 landraces and 1500 introductions

Geographical representation:

Malaysia and other southeast Asian countries

Evaluation and documentation:

Complete for morphological characters, grain characters, maturity and disease resistance

Storage:

Seeds with 13% m.c. stored in sealed plastic bags at -10°C and 60% R.H. for long-term storage and bags put in cans with silica gel in a cold room for medium-term storage

NEPAL

Agricultural Development Office
Katmandu

Curator/person in charge:

G.L. Shrestha

Details of samples:

O. sativa, 780 landraces

Geographical representation:

Nepal

Evaluation and documentation:

Partial for photoperiod sensitivity, bacterial blight resistance and protein content

Storage:

Short-term. Seeds stored in cloth bags at room temperature

NIGERIA

International Institute of Tropical
Agriculture (IITA)
Genetic Resources Unit (GRU)
P.M.B. 5320
Ibadan

Curator/person in charge: W.M. Steele

Details of samples: *O. sativa*, 3765 landraces, *O. glaberrima*,
1515 landraces, 86 *O. breviligulata*, 10
O. punctata, 94 *O. longistaminata*, 228 *Oryza*
spp. (some still in transit to GRU)

Geographical representation: Benin, Cameroon, Chad, Egypt, Gambia,
Ghana, Ivory Coast, Kenya, Liberia, Malawi,
Mali, Nigeria, Sierra Leone, Sudan, Tanzania,
Togo, Upper Volta, Zaire, Zambia

Evaluation and documentation: Partial and computerized

Storage: Seeds with 6% m.c. stored in foil envelopes
at -20°C for long-term storage and at 0°C
and 60% R.H. for medium-term storage.
Duplicates at CAES, Suakoko, Liberia;
IRAT/ORSTOM, France and Ivory Coast; IRRI,
Manila, Philippines and WARDA, Monrovia,
Liberia

NIGERIA

Rice Research Station
Badeggi
Nr. Bida

Curator/person in charge:

Details of samples: *O. sativa* 700⁺ and *O. glaberrima* 70⁺

Geographical representation: Unspecified

Evaluation and documentation: Partial and manual

Storage: Active collection. Duplicates at IITA,
Ibadan, Nigeria

PAKISTAN

Agricultural Research Council (ARC)
Islamabad

Curator/person in charge:	A. Khan
Details of samples:	<i>O. sativa</i> , 1404 cultivars and landraces
Geographical representation:	894 samples from Pakistan, 510 introductions
Evaluation and documentation:	Complete for cold, heat, salinity and zinc deficiency tolerance; resistance to blast, bunt, stem rot, stem borers, brown leaf spot, botanical traits and yield components
Storage:	Seeds stored in cans at 0°C for medium-term storage

PHILIPPINES

Bureau of Plant Industry (BPI)
Maligaya Rice Research and Training Centre
Maligaya

Curator/person in charge:	T.M. Masajo
Details of samples:	<i>O. sativa</i> , 735 lowland and 108 upland varieties
Geographical representation:	Philippines
Evaluation and documentation:	Partial and manual
Storage:	Short-term. Seeds stored in galvanized iron cans at room temperature and re-juvenated yearly. Duplicates at IRRI, Manila, Philippines

PHILIPPINES

International Rice Research Institute (IRRI)
P.O. Box 933
Manila

Curator/person in charge:

T.T. Chang

Details of samples:

O. sativa, 53418 cultivars and breeding lines, 2299 *O. glaberrima*, 955 wild *Oryza* spp. In addition 5415 samples being registered and 6385 duplicate samples

Geographical representation:

World-wide

Evaluation and documentation:

Cultivated taxa complete for: tolerance to deep water, drought and submergence, photoperiod sensitivity, elongation ability, alkali tolerance, growth duration, shattering, grain dormancy, fertilizer response, grain size and shape, growth analysis, response to air temperature, effect of strong wind, response to wide range of soil, iron toxicity, endosperm characters, protein and lysine contents, milling ability, disease and pest resistance and various cooking characteristics. Wild taxa complete for botanical characterization. Data computerized in the following forms:

- 1) Basic file of 38 morpho-agronomic traits, hybridization records and records of other breeding nurseries
- 2) Country file
- 3) Mini-file (registry of accessions)
- 4) Record of wild taxa encompassing 91 botanical characteristics

Storage:

Seeds with 6% m.c. stored in vacuum sealed cans at -10°C for long-term storage; at $2-4^{\circ}\text{C}$ and 30% R.H. for medium-term storage; and at $19-21^{\circ}\text{C}$ and 45-60% R.H. for short-term storage. Duplicates at NSSL, Fort Collins, USA

PHILIPPINES

National Plant Genetic Resources Laboratory
Institute of Plant Breeding
University of the Philippines at
Los Baños (UPLB)
Laguna 3720

Curator/person in charge:	N.G. Mamipic
Details of samples:	<i>O. sativa</i> , 240 majority <i>indica</i> and a few <i>javanica</i>
Geographical representation:	Philippines
Evaluation and documentation:	Partial and manual
Storage:	Seeds with 5% m.c. stored in sealed containers at -10°C for long-term storage and at 5°C for medium-term storage. Duplicates at IRRI, Manila, Philippines

SIERRA LEONE

Rice Research Station
Rokupr

Curator/person in charge:	
Details of samples:	<i>O. sativa</i> 500 ⁺
Geographical representation:	Unspecified
Evaluation and documentation:	Partial and manual
Storage:	Active collection. Duplicates at WARDA, Monrovia, Liberia

SPAIN

Instituto Nacional de Investigaciones
Agrarias (INIA)
Banco de Germoplasma
Finca 'El Encin'
Ap. 127 Alcala de Henares
Madrid

Curator/person in charge:	Maria A. Bueno
Details of samples:	<i>O. sativa</i> , 50 cultivars
Geographical representation:	Unspecified
Evaluation and documentation:	Complete data in process of computerization
Storage:	Medium-term (-2°C) and long-term (-18°C and 35-30% R.H.) stores

SRI LANKA

Central Agricultural Research Institute
Gannoruwa
Peradeniya

Curator/person in charge:	I.E. Gunawardene
Details of samples:	<i>O. sativa</i> , 2516 landraces
Geographical representation:	Sri Lanka
Evaluation and documentation:	Complete for resistance to iron toxicity, low phosphorous, cold, drought, salinity, flooding, bacterial leaf blight, leaf roller, brown plant hopper and other characters
Storage:	Seeds stored in a controlled low temperature and humidity chamber for medium- term. Duplicates at IRRI, Manila, Philippines

THAILAND

Rice Cultural Improvement and Seed
Storage Branch
Bangkhen Rice Station
Bangkhen
Bangkok 9

Curator/person in charge: S. Awakul

Details of samples: 2000 *O. sativa*, mostly *indica* landraces
and some wild species

Geographical representation: Thailand

Evaluation and documentation: Complete and manual

Storage: Seeds stored in tin cans or glass jars
at 23°C and 80% R.H. for short-term
storage. A medium-term seed store (0-5°C
and 20-25% R.H.) is being constructed at
the Thailand Institute of Scientific and
Technological Research (TISTR).

TURKEY

Aegean Regional Agricultural Research
Institute (ARARI)
P.O. Box 9
Menemen
Izmir

Curator/person in charge: K. Temiz

Details of samples: *Oryza* spp. 88 landraces

Geographical representation: Turkey

Evaluation and documentation: Computerization in progress

Storage: Medium-term. Seeds with 6% m.c. stored
in sealed metal cans at 0°C. Long-term
store (-15°C) constructed but not yet
operational

UNION OF SOVIET SOCIALIST REPUBLICS

N.I. Vavilov All-Union Institute of
Plant Industry (VIR)
44 Herzen Street
Leningrad

Curator/person in charge: V.F. Dorofeev

Details of samples: *Oryza* spp. 3514 landraces, cultivars and wild species

Geographical representation: World-wide

Evaluation and documentation: Complete for morphological and ecological traits. Data computerized

Storage: Seeds with 2-8% m.c. stored in sealed cans at -10°C and 30% R.H. for long-term storage and at 4-5°C and 30% R.H. for medium-term storage

UNITED STATES OF AMERICA

Beltsville Agricultural Research Center
Germplasm Resources Laboratory
Beltsville, Maryland 20705

Curator/person in charge: A.J. Oakes

Details of samples: *Oryza* spp. 5000 + landraces, cultivars and wild species

Geographical representation: World-wide

Evaluation and documentation: Virtually complete for disease resistance, cold tolerance and other desirable traits, unspecified. Data computerized

Storage: Medium-term. Duplicates at NSSL, Fort Collins, USA and IRRI, Manila, Philippines

UNITED STATES OF AMERICA

* National Seed Storage Laboratory (NSSL)
U.S. Department of Agriculture
Colorado State University
Fort Collins, Colorado 80523

Curator/person in charge:

L.N. Bass

Details of samples:

O. sativa, *O. galberrima*, 18065 landraces,
cultivars and wild species (duplicates of
the IRRI Rice Collection additional)

Geographical representation:

World-wide

Evaluation and documentation:

Passport data computerized

Storage:

Long-term. Seeds with 4-7% m.c. stored at
-10°C in permanently sealed metal cans.
* Beltsville is the national focal point for
the introduction, documentation, initial
distribution and exchange of germplasm.
Plant Introduction Officer, G.A. White

VENEZUELA

Centro Nacional de Investigaciones
Agropecuarias (CENIAP)
Apartado 4653
Maracay

Curator/person in charge:

A. Bejarano

Details of samples:

352 *O. sativa*

Geographical representation:

Unspecified

Evaluation and documentation:

Partial and manual

Storage:

Medium-term. Seeds stored at 8°C and
45% R.H.

ZAMBIA

Mount Makulu Agricultural Research Station
P.O. Box 7
Chilanga

Curator/person in charge:	R.K. Chungu
Details of samples:	<i>Oryza</i> spp. 92
Geographical representation:	Burma; Angola, mostly Zambia
Evaluation and documentation:	Partial for yield components and adaptation to soil types
Storage:	Medium-term. Seeds stored at 4-9°C and 55% R.H. Duplicated as an active collection at Luapula Research Station, P.O. Box 129, Mansa, Zambia. Duplicates in long-term storage at IITA, Ibadan, Nigeria and IRRI, Manila, Philippines