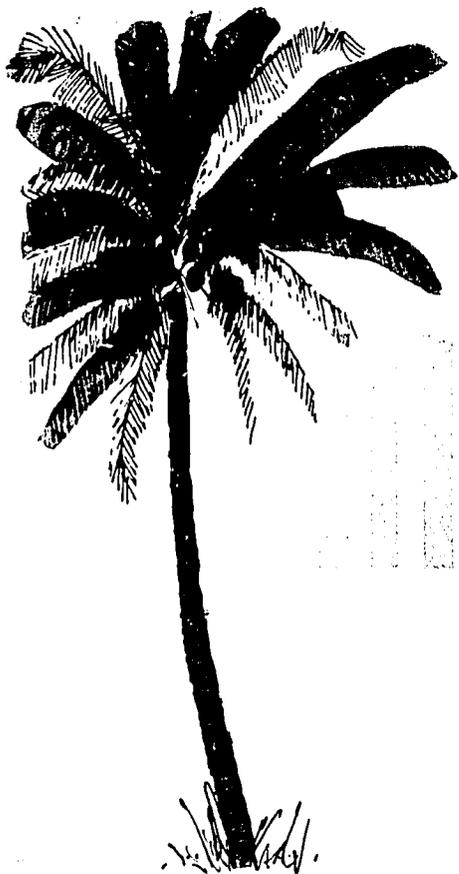
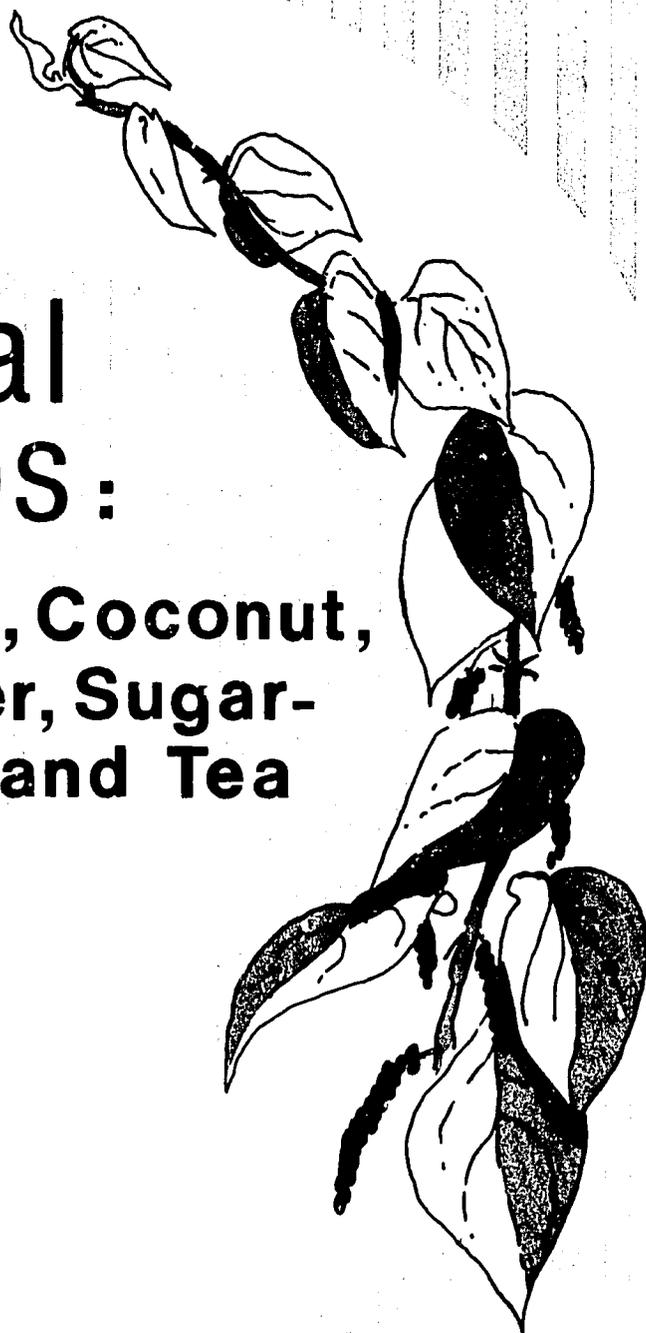
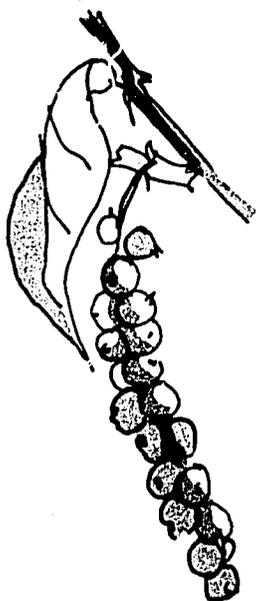


DIRECTORY OF GERMPLASM COLLECTIONS



**industrial  
crops :**

**Cacao, Coconut,  
Pepper, Sugar-  
cane and Tea**



INTERNATIONAL BOARD FOR PLANT GENETIC RESOURCES

DIRECTORY OF GERMPLASM COLLECTIONS

5. INDUSTRIAL CROPS

I. CACAO, COCONUT, PEPPER,  
SUGARCANE AND TEA

by

J.T. Williams and A.B. Damania

IBPGR Secretariat  
Rome, 1981

1

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, which was established by the CGIAR in 1974, is composed of its Chairman and 15 members; its Executive Secretariat is provided by the Food and Agriculture Organization 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 Executive Secretariat  
Plant Production and Protection Division  
Food and Agriculture Organization of the United Nations  
Via delle Terme di Caracalla, Rome 00100, Italy

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## 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 started, in 1980, 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.

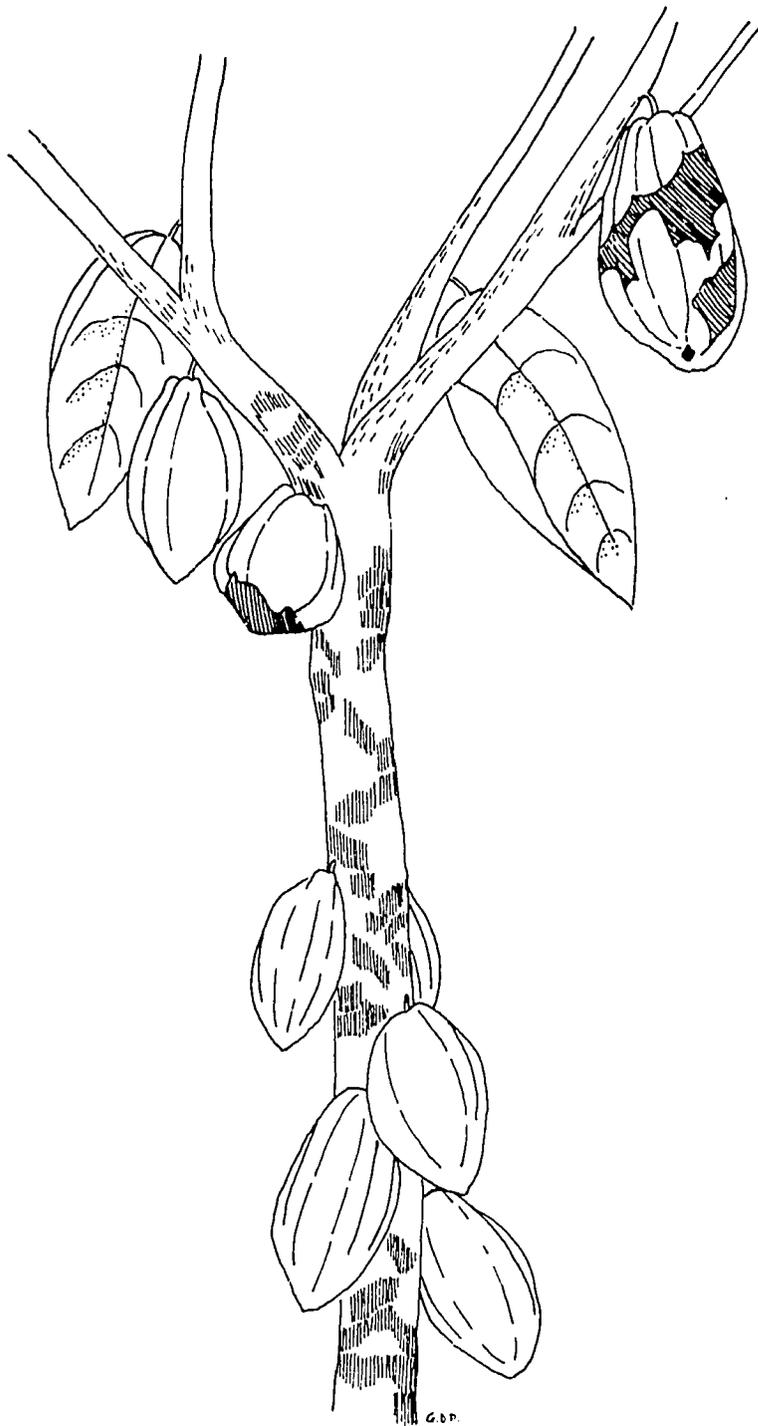
The data included in these directories are, of necessity, incomplete: we have relied upon answers to questionnaires, data held in the Secretariat and in published reports, indices seminum and verbal communications. It is our intention to keep the directories under continuing review and to issue revisions as and when necessary. All data are being computerized so that ultimately we can answer queries more readily. We apologize to those centres which are not included but we have attempted to incorporate information on all major holdings. Additions and corrections will be welcomed.

The nomenclature of several species varies according to the user e.g. the use of Erianthus or Ripidium for wild relatives of sugarcane. The taxa listed in this directory are those currently used by the curators.

Of the crops listed in this directory, Cacao, coconut and sugarcane have been the subject of intensive review by the IBPGR. Reports of the expert Working Groups are available from the Secretariat. These reports also include descriptors for use in documentation.

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**CACAO**

BRAZIL

Instituto de Pesquisas e Experimentação  
Agropecuária Nacional (IPEAN)  
Estação Experimental  
66.000 Belém Pará

Curator/person in charge:

Details of samples and  
geographical representation:

500 plants including many local cvs.  
Theobroma cacao from Brazil (mostly  
Southwest and West, part of Amazon  
from Bolivia borders and North)

Wild relatives: T. grandiflorum, T. bicolor,  
T. subincana, T. speciosa,  
Herrania sp.

15 introductions

Maintenance:

Trees

Availability:

Some restrictions

Evaluation and documentation:

Information not available at the present time

Quarantine restrictions:

Import through quarantine station at  
Cruz das Almas

(Collection also maintained at Centro de  
Pesquisas do Cacao, Itabuna)

CAMEROON

Station Experimentale du Centre de  
N'Koemvone  
Ebolowa

Curator/person in charge:

Details of samples:

Largely a duplicate of the collection in the  
Ivory Coast but includes Criollo, Forastero  
with a preponderance of Amazon Forasteros

Geographical representation:

Maintenance:

Availability:

Available

Evaluation and documentation:

A mimeographed register is available

COLOMBIA

CACAO

Instituto Colombiano Agropecuario (ICA)  
Estación Experimental de Palmira  
Apartado Aéreo 233  
Palmira

Curator/person in charge:

M. Alvarez

Details of samples:

192 samples including local selections made  
in 1940s and 1950s and some new ones made in  
oriental Amazon basin (less than 50)  
5 wild relatives

Geographical representation:

Brazil, Costa Rica, Ecuador, Granada, Peru,  
Venezuela

Maintenance:

Trees

Availability:

Available

Evaluation and documentation:

Evaluation has been done but full information  
on evaluation has not yet been computerized

COSTA RICA

Centro de Enseñanza e Investigación  
de IICA  
Turrialba

Curator/person in charge:

Details of samples:

350 cvs. (includes United Fruit clones)  
2000 samples in total including  
Theobroma simiarum, T. microcarpa,  
T. mammosum, T. grandiflorum, T. angustifolia,  
T. bicolor T. pentagona and Herrania  
(Includes many samples of Criollos collected  
by Soria)

Geographical representation:

Latin America

Maintenance:

Trees

Availability:

Evaluation and documentation:

A full listing of varieties and their morpho-  
logical characteristics is available;  
a descriptor system has been devised

ECUADOR

CACAO

Instituto Nacional de Investigaciones  
Agropecuarias (INIAP)  
Estación Experimental Pichilingue  
Apartado 24  
Quevedo

Curator/person in charge:

Details of samples:

500 +

Geographical representation:

Ecuador and other parts of S. America.  
(Includes Desrosiers & Buchwalds' 1949  
expedition to the headwaters of the  
Napo river. Limited number of intro-  
ductions from abroad

Maintenance:

Trees, seeds

Availability:

Available but some limitations due to  
funding

Evaluation and documentation:

Information on documentation or evaluation  
was not available at the time of this survey

FRANCE

Institut National de la Recherche  
Agronomique (INRA)  
Station d'Amélioration des Plantes  
97170 Petit-Bourg  
Guadeloupe

Curator/person in charge:

H. Touvin

Details of samples:

Material consists mainly of ICS clones

Geographical representation:

Maintenance:

Availability:

Evaluation and documentation:

GHANA

CACAO

Cocoa Research Institute of Ghana  
P.O. Box 8  
Tafo-Akim

Curator/person in charge:

Details of samples:

6000 + plants (including W. African, Amelonados and major introductions the New World)  
Theobroma angustifolia, T. antioquia,  
T. bicolor, T. calodesmis, T. grandiflorum,  
T. microcarpa, T. obovata, f. speciosa  
Herrania balaensis, H. camargoana,  
H. cuatrecasana, H. mariae, H. nitida and  
H. umbratica

Geographical representation:

Introductions from Trinidad (125), Colombia (350); 400 + others including many Amelonados and "local Trinitarios". Full details are to be found in Technical Bulletin No. 10

Maintenance:

Trees

Availability:

Available

Evaluation and documentation:

Information has been catalogued

Quarantine restrictions:

Imported cocoa clones must go through quarantine

INDONESIA

Estate Crops Research Institute  
Jember Station  
East Java

Curator/person in charge:

Details of samples:

74

Geographical representation:

Mostly introductions

Maintenance:

Availability:

Available

Evaluation and documentation:

Information on evaluation and documentation was not available at the time of this survey

IVORY COAST

CACAO

Institut Français du Cafe et du Cacao (IFCC)  
B.P. 1827  
Abidjan

Curator/person in charge:

Details of samples:

300 + Full details are provided in the list of clones (Besse, 1976) mimeographed by IFCC. The collection includes Upper Amazon clones, ICS selections, selections from Ghana and the following species: Theobroma bicolor, T. grandiflora, T. speciosum and Herrania

Geographical representation:

Maintenance:

Trees

Availability:

Available

Evaluation and documentation:

Evaluation has been catalogued

JAMAICA

Crop Research Division  
Ministry of Agriculture  
P.O. Box 480  
Kingston 6

Curator/person in charge:

J.R.R. Suah

Details of samples:

25

Geographical representation:

West Indies

Maintenance:

Trees

Availability:

Freely available

Evaluation and documentation:

Information on evaluation for the following characteristics are available: production; disease control and cultural practices

MALAYSIA

CACAO

Cocoa Research Station  
P.O. Box 324  
Tavau  
Sabah

Curator/person in charge:

Details of samples: 200

Geographical representation:

Maintenance: Trees

Availability:

Evaluation and documentation: Is currently being evaluated

NIGERIA

Cocoa Research Institute of Nigeria  
P.O. Box 5244  
Ibadan

Curator/person in charge: J.O. Sanwo

Details of Samples: 151 selections  
Local material of West African Amelados  
Wild species: Theobroma bicolor,  
T. microcarpum, T. grandiflorum,  
T. speciosum and Herrania sp.

Geographical representation: Introductions from Trinidad (especially materials from Amazon, some from Pound collections), Nigeria and Cameroon

PAPUA NEW GUINEA

CACAO

Lowlands Agricultural Experiment Station  
P.O. Keravat  
via Rabaul  
East New Britain

Curator/person in charge: K. Aburu

Details of samples: 200

Geographical representation: Introductions and local cvs. of Papua New Guinea

Maintenance: Trees

Availability: Restricted due to local demand

Evaluation and documentation: Evaluation has been carried out for some cultivars only on following characters: yield; disease resistance; bean size; beans/pod ratio; skin % and fat %

PERU

Estación Experimental de San Roque  
Instituto Nacional de Investigación  
y Promoción Agropecuaria (INIAP)  
Iquitos

Curator/person in charge:

Details of samples: Collection established by Pound with part of the material he collected in northern Peru

2 unidentified Theobroma populations  
1 T. cacao  
1 T. speciosum

Geographical representation:

Maintenance: Trees

Availability:

Evaluation and documentation:

PHILIPPINES

CACAO

SEARCA Genebank for Economic Crops  
Los Baños

Curator/person in charge:

Details of samples: 41

Geographical representation:

Maintenance: Trees

Availability: Freely available

Evaluation and documentation: No information on documentation or evaluation is available at the present time but the samples have been catalogued

TRINIDAD AND TOBAGO

Cocoa Research Unit  
Faculty of Agriculture  
University of West Indies  
St. Augustine

Curator/person in charge:

Details of samples: The major world collection of material from throughout Latin America including many of the most important selections as follows:

- ICS 1-100 original series of Trinidad selections
- ICS 111-144 selections from within hybrid progenies
- P 1-26 Pound's clones from 1944 collection mostly from Nanay area
- PA 9 Parinari clones from the 1937 introductions
- SCA 15 Scavina clones from the 1937 introductions
- IMC 50 Iquitos clones from Pound's 1937 introductions
- GS 15 Grenada clones
- UF 10 United Fruit clones, Costa Rica
- EET 11 Clones selected from Ecuador
- SPEC 48 Selections from types collected in 1952 by the Anglo-Colombian expedition
- MO 7 Morana clones from Pound's 1937 introductions

TRINIDAD AND TOBAGO (cont.)

CACAO

NA	3	Nanay clones from Pound's 1937 introductions
GEN	51	Selections from within various hybrid populations
ACT	26	Selections made after 1955 from within Trinidad populations
C	58	Hybrids made before 1954
AX	61	Selections from hybrid families after 1954
EQX	2-112	Crosses of Ecuadorian clones and open pollinated seed from Ecuador selections
EQX	3000+	3 or fewer seedlings from 38 of Chalmer's selections in the Ecuadorian Oriente
NAPOS		Seedlings from 7 of Chalmer's NA selections
AMA 2, UGA, TAP		Seedlings from 13 of Chalmer's 1973 selections
MAN, RB, MOC		Seedlings from 8 of the recent Brazilian selections
CL, CM, SJ, MOQ, JA		Pound's 1937 selections from refactario population in Ecuador
FRC		Seedling representatives from 5 crosses between selections for <u>Phytophthora</u> resistance
Misc.	53	Various clones not classified in the above groups
Wild species		Some samples of <u>Theobroma</u> and <u>Herrania</u> sp.

Geographical representation:

Maintenance:

Trees

Availability:

Available

Evaluation and documentation:

Information on evaluation and documentation is available

UNITED STATES OF AMERICA

CACAO

Federal Experiment Station  
USDA, SEA-AR  
Mayagüez, Puerto Rico 00745

Curator/person in charge:

A.R. Sotomayor

Details of samples:

270 cvs.  
8 primitive cvs.

Geographical representation:

Latin America, Caribbean and some  
samples from Africa

Maintenance:

Trees. Duplicated at Subtropical  
Horticulture Research Unit, Miami

Availability:

Freely available; limited quantity  
of budwood

Evaluation and documentation:

Evaluation has been done and information  
is catalogued

UNITED STATES OF AMERICA

Subtropical Horticulture Research Unit  
13601 Old Cutler Road  
Miami, Florida 33158

Curator/person in charge

P.K. Soderholm

Details of samples:

270 cvs.  
8 primitive cvs.

Geographical representation:

Latin America, Caribbean and some samples  
from Africa

Maintenance:

Trees

Availability:

Freely available; limited quantity  
of budwood

Evaluation and documentation:

Evaluation has been done and information is  
catalogued. Duplicated at Federal Experiment  
Station, Mayagüez, Puerto Rico

VENEZUELA

CACAO

Section de Mejoramiento Genetico  
Estación Experimental Caucagua  
Estado Miranda

Curator/person in charge:

H. Sornes

Details of samples:

Includes 43 Criollos, 51 Forasteros,  
13 hybrids and selections of local  
Chuao, Ocumare and Chouroní types.  
A few ICS clones

Geographical representation:

Maintenance:

Availability:

Evaluation and documentation:

ZAIRE

Institut National pour l'Etude et la  
Recherche Agronomiques (INERA)  
B.P. 1513  
Kisangani

Curator/person in charge:

Details of samples:

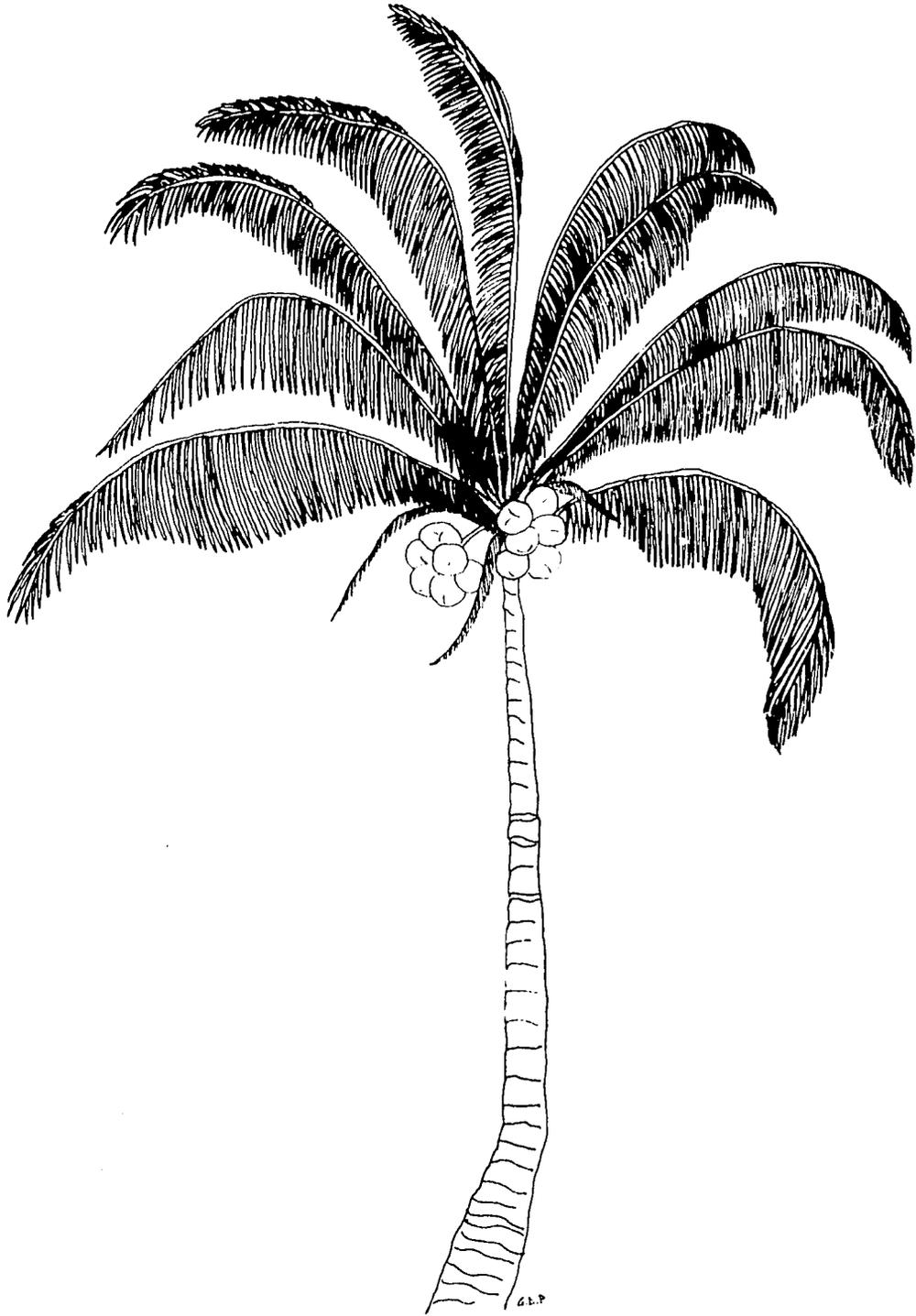
Collection of ca. 20 clones, 25 strains of  
Forasteros, 70 hybrid clones and Theobroma  
microcarpa

Geographical distribution:

Maintenance:

Availability:

Evaluation and documentation:



**COCONUT**

FRANCE

COCONUT

Institut de Recherches pour les Huiles  
et les Oléagineux (IRHO)  
11 Square Pétrarque  
75016 Paris

(Collections of IRHO are held in different countries but the main one is at the IRHO Experiment Station, Port Bouet, Ivory Coast (ca. 45 stocks) with important material held in Rangiroa, Tuamotu Arch, French Polynesia and Espiritu Santo, Vanuatu. The station at Port Bouet has been the most active in prospection and collection in recent years and represents an international collection.)

GHANA

Crops Research Institute  
P.O. Box 10  
Aiyinase  
Nzima

Curator/person in charge:

Details of samples:

350 + palms  
tall local  
dwarf local  
Ceylon type

Geographical representation:

Africa and Sri Lanka

Maintenance:

Palms

Availability:

Evaluation and documentation:

No further information on this collection is available at the present time

INDIA

COCONUT

Central Plantation Crops Research Institute  
Indian Council of Agricultural Research  
Kasaragod 670 124  
Kerala

Curator/person in charge:

N.M. Nayar

Details of samples:

56 +  
including 8 dwarf  
2 semi-tall  
rest all tall

Geographical representation:

Surinam; Panama, Trinidad; Seychelles,  
Zanzibar; Ivory Coast, Nigeria; Indonesia,  
Malaysia, Philippines; Sri Lanka;  
New Caledonia, New Hebrides, Solomon Islands

Maintenance:

Palms

Availability:

Evaluation and documentation:

Evaluation has been carried out and information on desirable descriptors is available

INDONESIA

Industrial Crops Research Institute  
Jalan Cimanggu 1  
Bogor

Curator/person in charge:

H. Azis

Details of samples:

25 +  
var. nana  
var. typica

Geographical representation:

Indonesia. Collection is in progress to include more local variation

Maintenance:

Palms

Availability:

Evaluation and documentation:

No information on evaluation or documentation is available at the present time

IVORY COAST

COCONUT

Institut de Recherches pour les Huiles  
et les Oleagineux (IRHO)  
Station Port-Bouet  
B.P. 59  
Port-Bouet

Curator/person in charge:

Details of samples:

45

Geographical representation:

Benin, Cameroon, Ivory Coast; Mozambique;  
Brazil; India, Sri Lanka; Kampuchea,  
Malaysia, Papua New Guinea, Philippines,  
Thailand; Fiji, French Polynesia, New Hebrides,  
Solomon Islands

Maintenance:

Palms

Availability:

Available; permission from the Ministry  
of Research required

Evaluation and documentation:

Evaluation has been carried out on the  
following characters: earliness; production;  
bunching and nut size; qualitative characters;  
oil and protein content

Quarantine restrictions:

Quarantine regulations must be followed

JAMAICA

Coconut Industry Research Board  
P.O. Box 204  
18 Waterloo Road  
Half Way Tree  
Kingston 10

Curator/person in charge:

R.A. Whitehead

Details of samples:

57

Geographical representation:

World-wide

Maintenance:

Palms and nuts for dried pollen

Availability:

Freely available

Evaluation and documentation:

Evaluation has been partially done on disease  
control; production; cultural practices

Quarantine restrictions:

None

NIGERIA

COCONUT

Nigerian Institute for Oil Palm Research  
Private Mail Bag 1030  
Benin City

Curator/person in charge: K.U.K. Nampoothiri

Details of samples: 55

Geographical representation: Cameroon, Nigeria; Fiji; India, Sri Lanka; Malaysia, Philippines

Maintenance: Palms, seed store (sand bed method)

Availability: Freely available

Evaluation and documentation: Evaluation has been carefully carried out and information is available as per following list of characters: VEGETATIVE (Annual observations): Height of tree; crown diameter; leaf production. INFLORESCENCE: Date of first flowering; number of leaf axil in which the first inflorescence emerges; number of female flowers; number of spikelets; distribution of female flowers; fertile and sterile spikelets. YIELD: Number of bunches; number of nuts; weight of bunches; nut set. NUT COMPONENTS (sample size of 4 nuts/palm): Weight of unhusked nut; length of unhusked nut; circumference of unhusked nut; weight of husked nut; length of husked nut; circumference of husked nut; weight of copra; weight of shell; oil content; % of husk/nut; shell/nut; and copra/nut.

Quarantine restrictions: Only 200 nuts per request can be imported due to limited facilities of quarantine services

PAPUA NEW GUINEA

COCONUT

Agricultural Research Centre  
Bubia  
P.O. Box 348  
Lae

Curator/person in charge:

Details of samples:

Markham, Karkar, Rennell, Natava and Gazelle.  
Additional material including 17 population  
samples is held at the Dept. of Primary  
Industry, Konedobu

Geographical representation:

Solomon Islands and Papua New Guinea

Maintenance:

Palms and nuts

Availability:

Markham and Karkar seeds only

Evaluation and documentation:

Information on evaluation and documentation  
is not yet available

Quarantine restrictions:

Imports prohibited

PHILIPPINES

COCONUT

Philippine Coconut Authority (PCA)  
P.O. Box 3386  
Manila

Curator/person in charge:

A.M.R. Mendoza

Details of samples:

60

var. typica

var. javanica

var. nana

var. spicata

Geographical representation:

Papua New Guinea, Philippines; Cameroon,  
Ivory Coast; Solomon Islands

Maintenance:

Palms

Availability:

Freely available

Evaluation and documentation:

The coconut germplasm collection of the PCA is distributed over three research centres located at Davao, Zamboanga and Albay. Number of populations include 21 tall types and 27 dwarf types. Each population is represented by over 100 palms. Evaluation has been done and is well documented. Observations of the following characteristics are made: Name of population; origin; date planted; number of palms; age to initial flowering in years; number of leaves at planting; number of leaves produced in the first, second and third year after planting, with coefficient of variation (%). Number of nuts; nut component: meat, shell, husk, water (g); copra/nut (g); total copra yield (kg)

Quarantine restrictions:

Limited to quantities required for experimental purposes only

SRI LANKA

COCONUT

Coconut Research Institute  
Lunuwila

Curator/person in charge:

M.A. Manthiraratne

Details of samples:

15: mainly limited to varieties and forms that were identified in the main coconut belt of the island viz:

var. typica forms typica, gon thembili, bodiri, navasi, ranthembili, pora-pol, kamandala

var. nana forms pumila, eburnea, regia

var. aurantiaca forms king coconut, navasi thembili

Geographical representation:

Sri Lanka. Future survey and collection, in collaboration with the Coconut Cultivation Board, will be aimed at areas outside the main coconut belt, i.e. in village gardens in remote areas

Maintenance:

Palms and nuts. Experiments on tissue and embryo culture in progress

Availability:

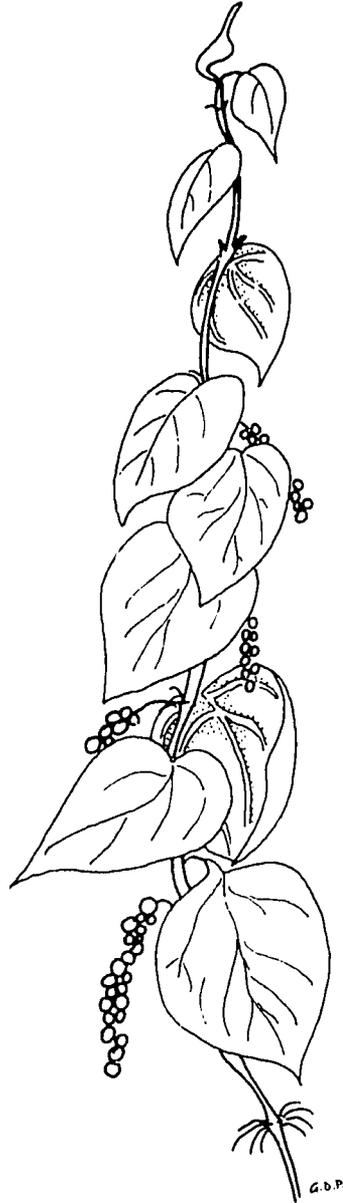
Restricted to 50 nut samples

Evaluation and documentation:

Information on evaluation and documentation is not available at the present time

Quarantine restrictions:

Government approval required



# PEPPER (Piper)

BRAZIL

PEPPER (Piper)

Centro de Pesquisa Agropecuária  
do Trópico Umido  
EMBRAPA, C.P. 48  
66.000 - Bélem Pará

Curator/person in charge:

Details of samples:

200 +  
15 primitive cvs.  
4 wild relatives

Geographical representation:

India; Indonesia, Malaysia, Thailand;  
Puerto Rico

Maintenance:

Vines

Availability:

Freely available

Evaluation and documentation:

Evaluation and documentation have been  
carried out for resistance to the fungus  
Fusarium solani sp. piperis and Phytophthora  
palmivora. Further work is in progress

Quarantine restrictions:

Few clones per request can be available with  
permission from CENARGEN

INDIA

Kerala Agricultural University  
Pepper Research Station  
Panniyur, Taliparamba  
Kerala 670 141

Curator/person in charge:

S.V. Pillay

Details of samples:

67  
19 primitive cvs.  
4 wild relatives

Geographical representation:

India, Sri Lanka; Indonesia

Maintenance:

Vines

Availability:

Freely available within country only

Evaluation and documentation:

Evaluation and documentation have been  
partially done for morphological characters;  
other characters are mainly floral and yield  
components

Quarantine restrictions:

Complete restrictions

INDIA

PEPPER (Piper)

Central Plantation Crops Research Institute  
Regional Station  
6/59 College Cross Road  
Calicut 673 011

Curator/person in charge:

M.K. Nair

Details of samples:

42  
154 primitive cvs. including related  
wild species

Geographical representation:

India

Maintenance:

Vines

Availability:

Subject to permission from ICAR

Evaluation and documentation:

Evaluation has been carried out on the following characters: disease resistance (Phytophthora root rot); nematode resistance (Melidogyne and Radopholus); Pollu beetle resistance; spike length; setting %; spike density; berry size; berry weight; dry matter %; oleoresin content and alkaloid content

Quarantine restrictions:

Subject to permission from ICAR

INDONESIA

Industrial Crops Research Institute  
Jalan Cimanggu I  
Bogor

Curator/person in charge:

H. Azis

Details of samples:

34

Geographical representation:

Indonesia

Maintenance:

Vines

Availability:

Freely available in limited quantities only

Evaluation and documentation:

Evaluation is available at the present time but no information on documentation

Quarantine restrictions:

Official permit required



# SUGARCANE

PREVIOUS PAGE BLANK

AUSTRALIA

SUGARCANE

Bureau of Sugar Experiment Stations  
Meringa Sugar Experiment Station  
P.O. Box 122  
Gordonvale 4865

Curator/person in charge:

N. Berding

Details of samples:

1, 233 samples including: Saccharum officinarum clones, S. edule, S. sinense, S. barberi  
436 wild relatives including: Erianthus maximum, E. arundinaceus, E. elephantinus, E. bengalense, E. kanoshiroi, E. procerus and Miscanthus spp.

Geographical representation:

Commercial clones from all major world breeding stations. Primitive material from Indonesia, New Guinea; India

Maintenance:

Clones and seeds maintained in cold storage

Availability:

Commercial material bred in Australia is available for exchange with other breeding stations

Evaluation and documentation:

Evaluation has been carried out for important commercial characters: sugar content; cane yield; fibre; flowering and disease resistance

AUSTRALIA

SUGARCANE

CSR Limited  
Agricultural Experiment Station  
P.O. Box 59  
Macknade, Queensland 4850

Curator/person in charge:

B. Roach

Details of samples:

1,774 hybrid commercial-type clones  
220 F<sub>1</sub> interspecific hybrids  
29 F<sub>1</sub> intergeneric hybrids  
103 Saccharum officinarum (primitive)  
30 S. officinarum (bred)  
108 S. spontaneum  
30 S. robustum  
23 clones of the sinense-barberi group  
9 S. edule  
20 clones representing 8 Ripidium species  
3 Miscanthus sacchariflorus  
2 Narenga porphyrocoma

Geographical representation:

World-wide

Maintenance:

Clones

Availability:

Free exchange with other breeding stations of basic germplasm and Australian-bred hybrids

Evaluation and documentation:

Continuing evaluation of phenotypic and breeding value with computer storage and retrieval of data

BARBADOS

West Indies Central Sugar Cane Breeding Station  
Groves  
St. George

Curator/person in charge:

I. Walker

Details of samples:

1,600 clones including hybrids  
120 primitive cvs. of Saccharum officinarum  
40 S. robustum  
50 S. spontaneum  
10 Ripidium spp.

Geographical representation:

World-wide. Wild species from Indonesia; India; East Africa and other regions

Maintenance:

Clones and seeds maintained in cold store

Availability:

Free to bona fide sugarcane breeding institutions. Fees are payable for commercial production.

Evaluation and documentation:

Evaluation and documentation have been carried out for: % sucrose; industrial fibre; total sucrose/ha; disease resistance; chromosome numbers; flowering behaviour

BANGLADESH

SUGARCANE

Sugarcane Research Institute  
Ishurdi  
Pabna

Curator/person in charge:

M. Shahjahan

Details of samples:

33 clones  
wild relatives including: Saccharum  
spontaneum, S. barberi, S. sinense

Geographical representation:

Introductions from India; China; Indonesia,  
Philippines; Australia; USA; Central America,  
West Indies; Brazil and South Africa

Maintenance:

Clones

Availability:

Freely available

Evaluation and documentation:

Evaluation and documentation is in progress

BRAZIL

Centro do Tecnologia Copersucar  
Bairro/Sto  
Antonio

Curator/person in charge:

W. da Silva (breeding)  
G. Rossi Machèdo (curator)

Details of samples:

1,300 clones

Geographical representation:

Brazil; South America and Asia

Maintenance:

Clones. The material is located at Camamu

Availability:

Freely available

Evaluation and documentation:

One of the largest collections of sugarcane  
germplasm in Brazil. Extensive work is in  
progress for manufacture of alcohol as a  
substitute for petrol. Evaluation has been  
carried out for agronomic and disease-  
resistant characters

BRAZIL

SUGARCANE

Planalsucar  
Rua Boa Morte 1367  
Caixa Postal 88  
13.400 Piracicaba, SP

Curator/person in charge:

Details of samples:

980 hybrids  
Few primitive clones of Saccharum officinarum  
Few samples of S. spontaneum

Geographical representation:

World collection but mostly breeding material  
for the north of Brazil

Maintenance:

Clones and true seed (seedstore for true  
seeds). Material maintained at Macao

Availability:

Freely available

Evaluation and documentation:

Information is available on agronomic  
characteristics and disease resistance  
e.g. mosaic, smut and leaf scald

BRAZIL

Empresa de Pesquisas Agropecuaria do  
Estado do Rio de Janeiro (Pesagro-Rio)  
Ave Francisco Lamego 134  
Guaros 28.100  
Campos, RJ

Curator/person in charge:

Details of samples:

629 clones

Geographical representation:

Argentina, Brazil, Peru; Barbados, Mexico;  
USA; India

Maintenance:

Clones

Availability:

Only two stalks of three buds per cultivar

Evaluation and documentation:

Evaluation and documentation has been carried  
out for: budding; tillering; growth; presence  
of late budding; fertilizer need; lodging;  
straw characteristics; stalk cracks; stalk  
diameter; bud prominence; inflorescence;  
analysis of first expressed juice by Brix  
hydrometer

COLOMBIA

SUGARCANE

Instituto Colombiano Agropecuario (ICA)  
Estacion Experimental de Palmira  
Ap. Aéreo 233  
Palmira

Curator/person in charge:

J. Guardiola

Details of samples:

246 national clones  
182 introductions

Geographical representation:

Brazil, Colombia, Peru; Barbados, Jamaica,  
Mexico; USA; Australia

Maintenance:

Clones. Material is also held at the Sugar  
Institute Cenicana, Ap. Aéreo 9138, Cali  
(Research Director: C. Casselett)

Availability:

Not fully available

Evaluation and documentation:

Evaluated for: germination; presence of  
flowers; lodging susceptibility; fall of  
leaves; growing habit; height of plant;  
sprouting of roots; bud sprouting; skin cracks;  
sap content; presence of hairs; diameter at  
inter-node; length of inter-node; pest and  
disease susceptibility; saccharose content;  
yield of cane

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CUBA

Instituto de Investigaciones de la Caña  
de Azucar (INICA)  
Avenue VanTroi 17203  
Rancho Boyeros  
Habana

Curator/person in charge:

R. Campo Zabala

Details of samples:

297 lines  
114 Saccharum officinarum wild  
12 S. spontaneum  
14 S. robustum  
5 S. barberi  
5 S. sinensis  
8 related genera  
804 hybrids

Geographical representation:

Not stated

Maintenance:

Clones

Availability:

Freely available

Evaluation and documentation:

Evaluated for agronomic characters only

FIJI

SUGARCANE

Fiji Sugar Corporation Ltd.  
Agricultural Experiment Station  
P.O. Box 63  
Lautoka

Curator/person in charge:

M. Krishnamurthi

Details of samples:

3,000 clones of Saccharum officinarum and  
S. sinense hybrids  
10 primitive clones of S. edule and S. barberi  
200 wild relatives including: S. spontaneum,  
S. robustum, Erianthus spp., Miscanthus spp.  
and Miscanthidium spp.  
700 hybrids

Geographical representation:

World-wide

Maintenance:

Clones

Availability:

Available but restrictions on number of  
samples

Evaluation and documentation:

Material is documented and computerized.  
In particular data on: Fiji disease;  
downy mildew; and sugar analysis have been  
obtained

FRANCE

Centre de Recherches Agronomiques  
Domain de Duclos  
Prise d'Eau (97-1)  
Petit-Bourg  
Guadeloupe

Curator/person in charge:

L. Degras

Details of samples:

160 clones

Geographical representation:

Mostly New World

Maintenance:

Clones

Availability:

Evaluation and documentation:

Information on evaluation and documentation  
was not available at the time of the survey

INDIA

SUGARCANE

Sugarcane Research Institute  
Council of Sugarcane Research  
Shahjahanpur, U.P.

Curator/person in charge:

H.N. Singh

Details of samples:

240 clones including 5 primitive ones  
Collection includes early, mid-season and  
late varieties

Geographical representation:

Northern India

Maintenance:

Clones

Availability:

Freely available

Evaluation and documentation:

Evaluation characters include: germination;  
tillering; yield; resistance to lodging;  
viruses and diseases (red-rot, smut, wilt);  
tolerance to drought.

INDIA

Sugarcane Breeding Institute  
Coimbatore - 7

Curator/person in charge:

Mohan Naidu

Details of samples:

2,713 clones including: Saccharum officinarum,  
S. barberi, S. sinense, S. robustum, S. edule,  
and S. spontaneum

Geographical representation:

World-wide

Maintenance:

Clones

Availability:

Freely available including 200 commercial  
clones on ISCT recommendation

Evaluation and documentation:

The collection has been evaluated but full  
information was not available at the time of  
survey

INDONESIA

SUGARCANE

Balai Penyelidikan Perusahaan Perkebunan Gula  
Pasuruan  
East Java

Curator/person in charge: Barli Laoh

Details of samples: Large collection of clones and breeding material including: Wild POJ, PS types of Saccharum officinarum, S. sinense, S. robustum, S. spontaneum and S. edule

Geographical representation: Many samples from Southeast Asia; many introductions

Maintenance: Clones

Availability: Freely available

Evaluation and documentation: Accession records are kept and evaluation data of breeding lines available

JAMAICA

Sugar Industry Research Institute  
Agriculture Division  
Sugar Industry Authority  
Mandeville P.O.

Curator/person in charge:

Details of samples: 3,000 clones including: old noble canes, Crystalina, striped Bourbon types, Delangor, Uba

Geographical representation: Barbados, Cuba, Jamaica, Guyana; USA; India; South Africa; Australia

Maintenance: Clones

Availability: Freely available but restricted to 6-10 buds of each clone (imported material must go through Kew (UK) or Beltsville (USA). Export through WICSCB Station, Barbados

Evaluation and documentation: Evaluation is based on following characters: agricultural and industrial yield; smut, rust and mosaic resistances

KENYA

SUGARCANE

National Agricultural Research Station  
P.O. Box 16  
Kikambala

Curator/person in charge:

Details of samples:

51 bred clones  
13 primitive clones  
(In 1975 a collection of noble sugarcanes held  
at Mtwapa was transferred to Kibaha, Tanzania)

Geographical representation:

Maintenance:

Availability:

Evaluation and documentation:

Evaluation for 30 varieties is in progress

MAURITIUS

Mauritius Sugar Industry Research Institute  
Redit

Curator/person in charge:

Details of samples:

100 + clones of Saccharum officinarum  
20 S. spontaneum  
10 S. robustum  
5 S. sinense

Geographical representation:

Indonesia, Philippines; Fiji, New Caledonia,  
New Hebrides, Samoa. Introductions from  
Australia and the USA collections

Maintenance:

Clones

Availability:

Freely available

Evaluation and documentation:

No information on evaluation and documentation  
was available at the time of survey

MEXICO

SUGARCANE

Instituto para el Mejoramiento de la  
Producción de Azucar  
Balderas 44-601

Curator/person in charge:

Details of samples: 1,500 + clones

Geographical representation:

Maintenance: Clones

Availability:

Evaluation and documentation: Information on evaluation or documentation  
was not available at the time of the survey

PAPUA NEW GUINEA

Highlands Agriculture Experiment Station  
Aiyura  
P.O. Box 384  
Kainantu, E.H.P.

Curator/person in charge: M. Bourke

Details of samples: 18 clones  
5 Saccharum edule

Geographical representation: Papua New Guinea highlands

Maintenance: Clones

Availability: Freely available

Evaluation and documentation: Evaluation has been limited to date

PAPUA NEW GUINEA

SUGARCANE

Department of Primary Industry  
Bubia Station  
near Lae

Curator/person in charge:

Details of samples:

125 clones

Geographical representation:

Papua New Guinea

Maintenance:

Clones

Availability:

Freely available

Evaluation and documentation:

Evaluation in progress

PHILIPPINES

SUGARCANE

Victotrios Milling Co. Inc.  
Negros Occ. 6037

Curator/person in charge:

Details of samples:

589 clones including:  
8 primitive clones  
12 wild relatives

Geographical representation:

Philippines; China; Australia; India;  
Mauritius; Barbados; USA; Brazil

Maintenance:

Clones

Availability:

Freely available

Evaluation and documentation:

Evaluation of the following characters has been carried out: disease resistance (smut, leaf scorch, downy mildew); juice quality; tillering capacity; stalk diameter; stalk length; stalk colour; stalk shape; leaf and bud characters

PHILIPPINES

University of the Philippines (UPLB)  
College of Agriculture  
Department of Agronomy  
Los Baños

Curator/person in charge:

Details of samples:

400 + clones Saccharum officinarum  
15 S. spontaneum

Geographical representation:

Maintenance:

Availability:

Clones

Evaluation and documentation:

Material is catalogued but details of evaluation are not known

THAILAND

SUGARCANE

Agronomy Division  
Department of Agriculture  
(Material maintained at Chai Nat Field Crop  
Experiment Station, U-Thong Field Crop  
Experiment Station and Huey Pong Field Crop  
Experiment Station)

Curator/person in charge: Preeda Jaticvanich

Details of samples: 250 clones

Geographical representation: Local Thai and introduced

Maintenance: Clones

Availability: Freely available

Evaluation and documentation: Preliminary evaluation is underway

UGANDA

Uganda Sugarcane Disease Testing Station  
P.O. Box 7065  
Kampala

Curator/person in charge:

Details of samples: 216 clones including  
3 primitive ones

Geographical representation: Uganda; eastern and southern African countries;  
West Indies; USA; India; Indonesia

Maintenance: Clones

Availability: Restricted. True seeds only can be imported  
with phytosanitary certificate

Evaluation and documentation: No information on documentation or evaluation  
was available at the time of survey

UNITED STATES OF AMERICA

SUGARCANE

Hawaiian Sugar Planters' Association  
Experiment Station  
P.O. Box 1057  
Aiea, Hawaii 96701

Curator/person in charge:

T.L. Tew

Details of samples:

182 Saccharum officinarum  
141 S. robustum  
57 S. spontaneum  
22 S. sinense  
5 S. edule  
1,300 early generation hybrids  
22 related genera  
104 intergeneric hybrids  
2,000 advanced generation hybrids  
(commercial potential)

Geographical representation:

Wild relatives largely from New Guinea, Indonesia and India. In addition, commercial clones from most major sugarcane-growing areas are included in the collection

Maintenance:

Clones at Maunawili Breeding Station, Maunawili, Hawaii

Availability:

Clones bred in Hawaii are available for exchange with other breeding stations. Hawaiian commercial clones and fuzz from hybrids crosses are available at a fee

Evaluation and documentation:

Clonal descriptions available, including flowering characteristics and disease ratings

UNITED STATES OF AMERICA

SUGARCANE

Sugarcane Field Station  
Star Route Box 8  
Canal Point  
Florida 33438

Curator/person in charge:	J.D. Miller
Details of samples:	1,600 clones 1,400 primitive clones 400 wild relatives
Geographical representation:	World-wide. This is one of the ISSCT-designated World Collections
Maintenance:	Clones
Availability:	Freely available (but restricted to 25 clones per year to a country)
Evaluation and documentation:	Evaluation and documentation are in progress. Attempts will be made through IBPGR to coordinate this with similar work of the other ISSCT-designated collection in India

UNITED STATES OF AMERICA

SUGARCANE

Department of Plant Pathology  
Louisiana Agricultural Experiment Station  
Louisiana State University  
Baton Rouge, Louisiana 70803

Curator/person in charge:	W.J. Martin
Details of samples:	60 clones 7 wild relatives <u>Saccharum spontaneum</u>
Geographical representation:	USA; India; Indonesia; Turkey
Maintenance:	Clones
Availability:	Freely available (but restricted to maximum of 5 stalks per request)
Evaluation and documentation:	Evaluation and documentation in progress

VENEZUELA

Seccion de Cana de Azucar  
CENIAP  
Fondo Nacional Investigaciones  
Agropecuarias (FONIAP)  
Maracay

Curator/person in charge:	
Details of samples:	110 clones from Venezuela 350 introductions
Geographical representation:	Mostly from Brazil, Colombia and Caribbean
Maintenance:	
Availability:	
Evaluation and documentation:	



**TEA**

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BANGLADESH

TEA

Bangladesh Tea Research Institute  
Srimangal  
Sylhet

Curator/person in charge: S.H. Chaudhury

Details of samples: 30 cvs.  
7 primitive cvs.  
1 wild relative

Geographical representation: India, Sri Lanka; Indonesia, Malaysia;  
China, Japan; USSR

Maintenance: Clones, plants

Availability:

Evaluation and documentation: Evaluation is in progress but no details are available. Three clonal varieties developed at the Institute have been released to commercial plantations

CHINA

Taiwan Tea Experiment Station  
324 Chin Loung Li  
Yang-Mei Tao Yuan  
Taiwan

Curator/person in charge:

Details of samples: 80 cvs. (none are population samples; include 11 hybrids of newly selected varieties)  
70 local cvs. of Camellia sinensis  
2 wild relatives

Geographical representation: Introductions from India, Sri Lanka and local material

Maintenance: Clones

Availability: Available through the Agricultural Research Institute, Taichung

Evaluation and documentation: No evaluation

INDIA

TEA

Tocklai Experimental Station  
Jorhat.  
785 008 Assam

Curator/person in charge:

I.D. Singh

Details of samples:

Prior to 1900 unorganized collecting was carried out by the tea estates of northeast India. The establishment of the Scientific Department of the Indian Tea Association in 1900 brought an organized approach. The collection includes samples collected by C.H. Hutchinson (1903-1910), A.C. Tunstall (1910-1920), L.C. Wilson (1917), W. Wright (1931-62), Kingdon Ward (1946-56), D.N. Barua and H.P. Bezbaruah (1962-1979)

712 samples  
(170 primitive cvs. and

91 samples of wild species including Camellia bissi, C. caudata, C. irrawadiensis, C. japonica, C. sasanqua, Gordonia excelsa, G. imbricata; Eurya japonica, E. acuminata; and Schima wallichii

116 polyploid genetic stocks

Geographical representation:

Burma, northeast India, Sri Lanka; Kampuchea, Vietnam; China, Japan; and USA

Maintenance:

Clones represented by over 15,000 plants in the field and tissue culture

Availability:

Limited

Evaluation and documentation:

Some evaluation and documentation has been done. Date of introduction/collection; origin; accession number and morphological descriptions are available

Quarantine restrictions:

Restricted by Government

INDONESIA

Balai Penelitian Teh dan Kina  
Gambung, Bandung

Curator/person in charge:

Details of samples: 385 cvs.

Geographical representation:

Maintenance: Plants

Availability:

Evaluation and documentation: No information on documentation or evaluation is available at the present time

JAPAN

National Research Institute of Tea  
Ministry of Agriculture, Forestry  
and Fisheries (MAFF)  
2769 Kanaya  
Shizuoka 428

Curator/person in charge:

Details of samples: var. sinensis 1,265  
var. assamica 496

Material held at the Main Station and at the Makurazaki Branch. Other institutes include Saitama Prefectural Tea Experiment Station and Kawaninami Tea Branch of Miyazaki Agricultural Experiment Station

Geographical representation: India, Sri Lanka; Indonesia; China, Japan and Korea

Maintenance: Plants, 2-year old unrooted cuttings at 0-2°C and roots at 1-5°C

Availability: Yes, except for newly registered varieties

Evaluation and documentation: Evaluation has been done partially; documentation and information is available in Japanese only

KENYA

Tea Research Institute of East Africa  
P.O. Box 91  
Kericho

Curator/person in charge:

Details of samples:

15,000 cvs.  
500 + including the Cambodian race  
lasiocalyx (primitive cvs.)

Geographical representation:

India, Sri Lanka; East Africa

Maintenance:

Plants

Availability:

Evaluation and documentation:

No information on evaluation or documentation  
is available at the present time

MALAWI

Tea Research Foundation of Central Africa  
P.O. Box 51  
Mulanje

Curator/person in charge:

Details of samples:

1,000 cvs.  
20 population samples

Geographical representation:

Maintenance:

Plants

Availability:

Evaluation and documentation:

Information is available on physical  
characteristics and field performance of  
the samples in this collection

SRI LANKA

TEA

Tea Research Institute  
St. Coombs  
Talawakelle

Curator/person in charge:

Details of samples:

More than 200 cvs.

Geographical representation:

India and Sri Lanka

Maintenance:

Plants

Availability:

Evaluation and documentation:

No information on documentation or evaluation  
is available at the present time

ZAMBIA

Kawambwa Tea Scheme  
Kawambwa

Curator/person in charge:

Details of samples:

80 cvs.

Geographical representation:

India and Sri Lanka; Kenya

Maintenance:

Plants

Availability:

Freely available in restricted numbers

Evaluation and documentation:

No information on evaluation or documentation  
is available at the present time although  
variety trials are in progress