A Guide for the Import and Export of Seeds of ICRISAT Mandate Crops

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ICRISAT

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This is a Plant Quarantine Unit publication meant for apprising ICRISAT Scientists/Cooperators of the quarantine requirements for import and export of seeds, particularly, sorghum, pearl millet, pigeonpea, chickpea and groundnut. It is mandatory to follow the instructions to fulfil international obligation in the exchange of germplasm.

PREFACE

This revised summary of plant quarantine import and export instructions for seeds of ICRISAT mandate crops: sorghum, pearl millet, pigeonpea, chickpea and groundnut has been prepared as a guide for safe, smooth and speedy exchange of seeds.

Assembly of germplasm from all over the world and distribution of cultivars to scientists and cooperators for testing in the semi-arid tropics are essential to the success of ICRISAT's crop improvement programs. The Government of India wishes to encourage the unrestricted movement of seed and genetic material into and out of India, subject to quarantine regulations which aim at preventing the accidental transport of exotic insect pests and diseases across international borders. ICRISAT respects the plant quarantine rules and regulations of different countries and wishes to ensure that all seed exchanges conform with these regulations and meet the approval of the National Plant Quarantine Services.

The Indian Government has established rules and procedures for clearance of seed materials and so have most of the other countries, and these have been kept in mind while writing this brochure.

It is hoped that cooperators and scientists involved in the collection, despatch and exchange of seed and plant materials of our crops will follow these procedures carefully, so as to ensure effective plant protection through safe and prompt movement of seed to and from cooperators working in various countries.

L.D. Swindale
Director General

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APPENDICES

ABBREVIATIONS USED

AD	Additional Declaration
CPPTI	Central Plant Protection Training Institute
IARI	Indian Agricultural Research Institute
ICRISAT	International Crops Research Institute For the Semi-Arid Tropics
IP	Import Permit
NBPGR	National Bureau of Plant Genetic Resources
PSC	Phytosanitary Certificate
PEQIA	Post-Entry Quarantine Isolation Area
PQU	Plant Quarantine Unit

IMPORT

PLANT QUARANTINE AT ICRISAT

Seed Material

Plant quarantine is a legal preventive measure which aims at checking the inter-country movement of pests, diseases and weeds through plants and plant materials, including seeds.

All seed imports and exports are therefore subject to plant quarantine examination in India and other countries. Government permit is required for the import of plants, plant materials (including some of the seeds*), living insects and fungi. A sample application for permit to import plants by air in India is given in Appendix 1.

ICRISAT scientists import or bring seeds of the crops they are working on from various countries. The following precautions need to be taken while collecting and despatching seeds to ICRISAT to meet plant quarantine requirements of India.

PLANT QUARANTINE IMPORT REQUIREMENTS OF INDIA

1. Seeds should be harvested from disease-free plants, be physiologically mature, dry and free from foreign matter, insects and weeds. Small shrunken, discoloured and damaged seeds should be removed and admixtures avoided. The import requirements for seeds of five crops are:

   a. Sorghum seeds should be collected from fields where milo disease, bacterial leaf streak, bacterial leaf stripe and bacterial leaf spot do not occur. Plants from which seeds are collected should also be free from downy mildew and smut.

   b. Pearl millet seeds should be harvested from plants which are visibly free of downy mildew and ergot diseases. Seed should be harvested in the presence of a scientist familiar with the pathology, particularly, of downy mildew.

   c. Chickpea seeds should be collected from plants free from ascochyta blight and fusarium wilt.

   d. Pigeonpea seeds should be collected from plants free from anthracnose and bacterial diseases.

*No permit is required for the import of seeds of sorghum, millets, pigeonpea, chickpea and groundnut by ICRISAT

e. Groundnut seed should be harvested from fields where rust is not prevalent and in areas free from scab. The donor plants should be inspected regularly during active growing season and declared free from virus diseases, specially from seed-borne viruses like groundnut mottle, peanut stunt, marginal chlorosis and ringspot. Import of undecorticated groundnut seed incurs the risk of introduction of the nematode Pratylenchus brachyurus through soil. All groundnut seeds should therefore be sent decorticated.

2. Groundnut cuttings, if imported must pass through growth in an intermediate or third country quarantine.

3. Seeds should be free from infections/infestations, such as sclerotia, galls, smut balls, fruiting bodies of fungi, resting hyphae, spore or bacterial masses, insects, etc. outside or within the surface.

4. Individual samples should be uniform in appearance and free from weed seeds.

5. Seed lots should be free from crop residues, e.g., glumes, husk, leaf trash, roots and inert materials such as soil particles, stones, cloth fragments, etc.

6. Seed material for routine introduction will be limited to 200 seeds (100 in the case of groundnut), but for germplasm collections of pearl millet and breeders population studies, the permissible limit may be 3000-4000 viable seeds. Import of bulk seed shall be avoided as far as possible, and more than 1 kg of seed may not be imported.

GENERAL REGULATIONS

1. All seed consignments should be accompanied by a Phytosanitary Certificate(PSC) issued by the National Plant Quarantine Service of the exporting country in the form prescribed by the FAO/International Plant Protection Convention, 1951. Apart from other things, it should mention treatment given, if any, and additional declarations required by the Government of India (see pages 4 and 5).

2. All seed materials should be thoroughly inspected by the Plant Quarantine Service of the exporting country, properly packed and sealed. Each seed box requires a PSC.

3. Seed consignments should be despatched within 14 days of inspection and issue of the PSC. Re-export phytosanitary certificates are required for consignments of seeds transhipped through an intermediate or third country to India, if it is unloaded there, besides the PSC issued by the country of true origin.

4. The phytosanitary certificate is also required for seeds brought as accompanied baggage by scientists coming from abroad. Its declaration at the port of entry/disembarkation and examination/release by the national plant quarantine service are very necessary.

5. Phytosanitary certificates shall contain no erasures or overwriting.

6. All consignments whether exported as air cargo, post parcel, accompanied or unaccompanied baggage be packed in such a manner as not to allow entry into or escape of any pest from the consignment. Individual seed samples should be in sealed envelopes or cloth bags and packed carefully in such a manner that spillage or escape of pests is avoided.

7. A duplicate copy of the PSC and the packing slip are to be placed in an envelope inside all boxes. The packing slip may contain name of scientist, crop, exact number of samples and their description, country of origin and location, etc.

8. All airfreight and post parcels of ICRISAT mandate crop seeds are required to be sent to Director, National Bureau of Plant Genetic Resources, IARI Campus, New Delhi-110 012. He will get the seeds inspected and make arrangements to release them to ICRISAT.

9. Advance intimation of despatch of seed samples in the form given (Appendix 2) may be invariably sent to the concerned ICRISAT scientist and to the Chief Plant Quarantine Officer, ICRISAT, for arranging examination and release of the seed material. It is advisable to send complete copies of packing list and PSC also for checking the released seed material.

10. For identification of ICRISAT seed parcels, it is necessary to affix printed labels (Appendix 3) on each box/packet. The mailing labels can be had from Chief Plant Quarantine Officer, ICRISAT.

No seed box should be sent directly in the name of ICRISAT scientists nor seed material be brought on person or as accompanied baggage undeclared at the port of entry. A certificate of fumigation/examination from the plant quarantine officials at the international airport must be taken before bringing the seed packet to ICRISAT.

ADDITIONAL DECLARATIONS IN RESPECT OF ICRISAT CROPS IMPORTED TO IN

This is required to be mentioned in the phytosanitary certificate as a safeguard against specific pests and diseases whose introduction is considered high risk to crops. The additional declarations (AD) for the entry of seeds of the five crops are as follows:

(a) Sorghum: Certified that the seed samples were collected from fields which were regularly inspected during active growing season and were found to be free from infection of bacterial leaf stripe (Pseudomonas andropogoni) and bacterial leaf streak (Xanthomonas holcicola).

(b) Pearl millet: Certified that seeds were collected from disease-free plants in the presence of a scientist with knowledge of plant pathology, and in particular downy mildew.

(c) Pigeonpea: Nil.

(d) Chickpea: Certified that the seed samples were collected from mother plants free from Ascochyta rabiei nd virus diseases.

(e) Groundnut:

i. Certified that seeds were produced in areas where the rust disease Puccinia arachidis and scab Sphaceloma arachidis do not occur.

ii. Certified that parent crop was inspected regularly in active growth and found free from symptoms of peanut stunt, peanut stripe and marginal chlorosis viruses.

iii. Certified that seeds were treated with an appropriate fungicide at stated dosage before despatch.

Note: If the seeds are received in India in an unclean, contaminated and heavily treated condition, then these not only run the risk of being rejected and destroyed but also in delay in the examination and release of healthy seeds which upsets timely sowing of crops in the Quarantine Isolation Area. Therefore, every effort should be made by the exporting scientists/agencies to see that only seeds from healthy looking plants/crops/fields are collected, cleaned, treated if necessary, and then despatched so that there is no problem in clearance through quarantine in India.

HANDLING OF IMPORTED SEED MATERIALS

No imported seed material unless cleared by the national plant quarantine services will be grown at ICRISAT. On release, seeds shall be planted in Quarantine Isolation Area in the presence of quarantine officials and only seeds harvested from healthy plants will be passed on to the scientists.

PHYTOSANITARY CERTIFICATE

The PSC is a very important document in plant quarantine. It is to be given on the lines approved by the International Plant Protection Convention, 1951 (Appendix 4) and signed by an authorized officer. It is required to accompany each package of seed material. The original PSC should be put in an envelope and affixed outside the package and one copy be put inside the package to facilitate inspection in case the original PSC is misplaced during transit.

Seed materials are likely to be detained if they are not accompanied by a phytosanitary certificate.

Shipments arriving without PSC may be refused entry, destroyed, or returned to the country of origin.

The phytosanitary certificate contains information about the health of the seeds, treatment, additional declaration, if any, and description of the consignment. This information is given by the plant quarantine authorities entitled to issue phytosanitary certificates.

No seed shall be released unless it conforms with the health statement mentioned in the PSC, including the additional safeguards.

IMPORT PERMIT

Import permits are required by most of the countries for authorizing importations of plant and plant materials, including seeds, into their country. The permits are issued by the national plant quarantine services of the country allowing entry of the seeds. A mailing label is also furnished to the importer along with the Import Permit (IP) which is required to be attached outside the package.

Samples of Import Permit (Appendix 5) and mailing label Appendix 6) are given for information.

The import permit generally gives the name of the person who has been granted permission to import, sender's name, port of entry, quantity of the material allowed and additional declarations, if any.

When required, the IP must be presented by the consignee or his agent to the customs at the port of entry before delivery of the consignment can be obtained.

Some countries insist on import permits before releasing imported seeds to the consignee. Such countries have made arrangements to issue permits to the Scientists/Cooperators who want to import ICRISAT seed materials. Scientists may therefore approach the plant quarantine authorities of the countries where they are working with details of the seeds to be imported for the issue of import permits.

A list of the national plant quarantine services which may be contacted for the issue of IP is attached (Appendix

Scientists at ICRISAT should inform the Scientists/Cooperators in other countries of the seed materials they intend to send them in advance of the sowing period, so that the latter can arrange for the import permit in time. The arrangement for the import permit is the responsibility of the importing scientist and none else, since it is issued by name.

The original copy of the IP should be sent to the concerned Program Leader at ICRISAT who will pass on the same to the Plant Quarantine Unit along with the seeds meant for exportation.

Care should be taken to send the seeds before the expiry date of the permit.

IMPORT OF LIVING FUNGI AND INSECTS

No living fungi or bacteria, insects, or its developing stages can be imported into India unless these are accompanied by a special permit. The format of the application for applying for special permit is given in Appendices 8 and 9.

Application for permit

The application for permission to import cultures of fungi is required to be addressed to the Head of Division of Mycology, Indian Agriculture Research Institute, New Delhi, and for insects, to Plant Protection Adviser to Government of India,Directorate of Plant Protection, Quarantine and Storage, Ministry of Agriculture, National Highway IV, Faridabad, Haryana 121 001.

Insect shipments must be accompanied by an official phytosanitary export certificate certifying freedom from diseases.

Unauthorised imported consignment of living insects or fungi is likely to be confiscated and destroyed at the port of entry.

PLANT QUARANTINE IMPORT REGULATIONS OF DIFFERENT COUNTRIES

The plant quarantine import regulations of different countries, with respect to the five ICRISAT crops, are given in Appendix 10 for information and compliance. This is only a summary and for details the original legislation may be consulted.

The importation of the seed materials is subject to the control of plant protection service of the importing country which has the sole authority in deciding whether the seeds, depending upon their condition, should be admitted, refused, quarantined or otherwise treated and released. It is therefore necessary to see that the exported seed material meets all the requirements of the importing country.

Arrangements of necessary documents to accompany the seed consignment and strict observance of country's plant quarantine rules and regulations help to speed up despatch and delivery.

EXPORT

ICRISAT is required to distribute seeds of the mandate crops all over the world for research purpose or collection just as it imports.

The countries where the seed is exported insist on receiving good quality seeds which are healthy, disease, pest and weed free. In order to meet these requirements, the following instructions may be followed.

GENERAL INSTRUCTIONS FOR COLLECTION OF SEED MATERIAL FOR EXPORT

1. For exportation, seeds should be collected from disease free, healthy plants which should be earmarked in advance and threshed separately.

2. Seeds should be physiologically mature, dry, clean, free from insect pests, diseases, weeds, crop debris, soil particles, stones, and other foreign materials.

3. Small, shrunken, discoloured and damaged seeds are to be discarded prior to submission of the seed lots for export.

4. Individual seed lots should be uniform in appearance and contain no admixtures.

5. Use of old hessian or muslin bags for threshing or storing seeds should be avoided as far as possible.

Apart from the normal care exercised for the collection of exportable seeds, special precaution, as mentioned below, needs to be taken to ensure complete freedom from the objectionable diseases which may be carried through seeds.

SPECIAL CARE FOR EXPORT OF MANDATE CROP SEEDS

Sorghum

Seeds should be collected from plants which are free from downy mildew and smut diseases.

Pearl millet

Seeds should be collected from plants which are free from downy mildew, ergot, smut and leaf blast.

Chickpea

Seeds should be collected from areas free from ascochyta blight.

Pigeonpea

Seeds should be collected from plants free from anthracnose disease.

Groundnut

Seeds should be harvested from rust-free plots and from plants free from peanut mottle virus.

As an extra safeguard to prevent the entry of serious pests and diseases, a few countries require additional declaration (AD) affirming the freedom of seeds from notified pests/diseases in the PSC by the exporting country. These are invariably mentioned by the importing country in the import permit. The additional declarations to cover specific pests and diseases mentioned by the countries that have issued import permits for ICRISAT seed materials are reproduced below:

COUNTRIES REQUIRING ADDITIONAL DECLARATIONS

1. **BRASIL**

Sorghum

Certified that there was no fungus borne disease caused by Peronosclerospora (Sclerospora) sorghi (Kulk.) Weston and Uppal, observed in fields from where this seed material was harvested.

2. **ISRAEL**

Chickpea

The seed crop was inspected during the growing season and found free from Fusarium oxysporum f. sp. ciceri and Ascochyta rabiei.

3. **KENYA**

Chickpea

i. The parent plants were thoroughly inspected and found free from virus diseases.

ii. Ascochyta rabiei (Pass.) Labr., and Gibberella baccata (Wallr.) Sacc. are not known to occur in the country of origin.

OR

The seed was harvested from fields which have been inspected during active growth and found to be free from Ascochyta rabiei and Gibberella baccata.

Pigeonpea

i. The parent plants were inspected during active growth and found to be free from virus diseases.

ii. Colletotrichum cajani Rangel is not known to occur in the country of origin.

OR

The seeds were harvested from fields which have been inspected during active growth and found to be free from Colletotrichum cajani.

4. MALAWI

Sorghum

i. The parent plants were inspected during active growth and found free of Pseudomonas andropogoni, maize dwarf mosaic virus, Drechslera maydis and Periconia circinata.

ii. The seeds were harvested from fields free of Sclerospora sorghi, S. macrospora and S. graminicola.

iii. Urocystis agropyri and Ophiobolus graminis are not to known to occur in the country of origin.

iv. The seed is free from Claviceps spp.

v. The seed has been fumigated and treated with approved insecticide/fungicide.

Pearl millet

Urocystis agropyri and Ophiobolus graminis are not known to occur in the areas where this crop is grown. The seed is treated with approved insecticide /fungicide and fumigated before despatch.

Chickpea

i. Bacterial blight Pseudomonas pisi is not known to occur in country or state of origin.

ii. The mother plants were inspected and found free of alfalfa mosaic virus, pea mosaic virus and tomato spotted wilt virus.

iii. Seed is dressed with fungicide and insecticide.

Pigeonpea

i. Bacterial blight Pseudomonas pisi is not known to occur in country or state of origin.

ii. The mother plants were inspected and found free of alfalfa mosaic virus, pea mosaic virus and tomato spotted wilt virus.

Groundnut

i. The parent plants were inspected in active growth and found free from bacterial and virus diseases.

ii. Puccinia arachidis is not known to occur in the country of origin.

iii. The consignments are free from Carvedon serratus (C.gonagra) and Trogoderma granarium (Khapra beetle).

iv. The seeds are treated with approved fungicide and insecticide before despatch.

5. **MAURITIUS**

Chickpea

The parent plants were inspected during active growth and found free from Ascochyta (Mycosphaerella) rabiei or that Ascochyta rabiei does not occur in the area of production.

Groundnut

i. Parent plants were inspected during active growth and found free from groundnut mottle virus, groundnut rosette virus, marginal chlorosis virus, ring spot virus, and peanut stunt virus.

ii. That the Puccinia arachidis and Sphaceloma arachidis do not occur in the area of production.

6. NIGERIA

Sorghum

i. Sorghum seeds were harvested from fields which were inspected during active growth and found to be free from Sclerospora sacchari and Xanthomonas stewartii.

ii. The sorghum crop was inspected regularly during its active growth period at its source of origin and was found free of downy mildews - Sclerophthora macrospora, S. philippinensis and S. sacchari.

Pearl millet

i. Pearl millet seeds were free from downy mildews - Sclerospora sacchari, S. philippinensis and Scleropthora macrospora and these pathogens are not known to occur on millets in India.

ii. The pearl millet crop was inspected regularly during its active growth period at its sources of origin and was found free of smuts (Ustilago spp.), blast (Pyricularia setariae), and bacterial streak (Xanthomonas panici).

Chickpea & Pigeonpea

There is exclusion of Ascochyta rabiei, wilt (Gibberella baccata), downy mildew (Peronospora viciae) and bacterial blight (Pseudomonas pisi).

Groundnut

The seeds are free from collar rot (Diplodia gossypina) and the viruses - stunt, mottle, ring spot, bunchy top, chlorosis and ring mottle.

7. SWAZILAND

Pigeonpea

Freedom from Macrosiphum pisi. Parent plants were inspected during active growth and found free from Pseudomonas pisi, bean yellow mosaic virus, and pea seed borne mosaic virus - or declaration that the disease does not occur in the area of production.

8. **TAIWAN (REPUBLIC OF CHINA)**

Sorghum

The sorghum spp. is free from gumming disease (Xanthomonas vasculorum(Cobb) Dows.) and originates from areas free from X. vasculorum.

9. **REPUBLIC OF SOUTH AFRICA**

Sorghum

i. Parent plants were inspected during active growth and found free from Pseudomonas andropogoni, maize dwarf mosaic virus, Periconia circinata and Drechslera maydis.

ii. Seed was adequately treated with an appropriate fungicide and fumigant (treatment to be specified on the phytosanitary certificate).

10. **ZIMBABWE**

Sorghum

Seed treatment with an appropriate fungicide to be stated.

Pearl millet

i. The seeds have been inspected and found free from ergot Clavicens sp.

ii. Seed treatment with an appropriate fungicide to be stated.

In order to enable the Indian Plant Quarantine Service to record the additional declarations in the PSC, the scientists, particularly, Plant Pathologists/Entomologists of different Programs should survey the crops at least thrice on ICRISAT fields during the cultivation to examine seeds earmarked for export, and record the data on the proforma attached in the end of this booklet (Appendices 11-15). The final inspection shall be carried out before crop harvest by the plant quarantine officials, particularly, for the diseases for which additional declaration is required in the PSC.

HANDLING OF SEED MATERIAL FOR EXPORT

The export of seeds/plant materials is taken up by the Plant Quarantine Unit (PQU) at ICRISAT. All scientists are required to send seed materials to the PQU accompanied by the slip 'Request for seed/plant/ plant products export' (See Appendix 16), giving information about the objective, address of consignee, special instructions, import permit, etc.

Seeds should not be sent to PQU treated with pesticides.

No seeds or plant material/products should be exported by the scientists directly.

Seed samples for export are required to be sent to the PQU much in advance of the departure of the person who would like to carry them as accompanied baggage, or the date of sowing in the importing country. Depending upon the size and physical condition of the samples, it takes 2 to 4 weeks to complete all the quarantine formalities before the consignment is ready for despatch.

Export of seeds of non-mandate crops is not taken up by ICRISAT.

PACKING OF SEEDS

Seeds are valuable material and therefore need to be packed carefully for despatch. Not only should it ensure safety of seeds, but it should also prevent any contamination with or escape of insects or pathogens during transit. The package should enable easy examination and be made of such a material that it can withstand journey as well as rough handling.

All packing materials must be clean, new and pest-free.

Use of packing material of plant origin should be avoided. Seeds should be packaged in moisture-resistant or moisture- proof containers to ensure seed vigor and germination.

If possible, corrugated cardboard boxes of 7 ply of 170 gms which are light and strong, should be used for packing purpose. The seeds can be kept either in polythene packets of 400 gauge, if they are large, e.g., groundnuts and in large quantities, or in small paper packets (substance 24

kraft packet) which are strong enough to keep the seeds. The open end should be stapled after folding, or pressed in case self-sealing zipper polythene bags are used. Small packets should be put in a large polythene bag of 400 gauge, stapled and kept in the cardboard box.

Small quantities of seeds can also be packed in moisture-proof paper bags which are asphalt, polyethylene or aluminium foil- lined. Multiwall paper packets with inner aluminium lamination or packets made of aluminized polyester material are also suitable since these can be easily sealed with a heat sealing machine.

Before putting the packets in the cardboard box a layer of new thermocole chips should be placed at the bottom, and after arranging the packets, on the top. The packing should be done tightly so that there is no movement of seed material inside.

The flaps of the carton, corners and edges should be sealed by packing tape and then by filament tape crosswise to lend strength to the box. Finally boxes containing 10 kg or more should be strapped by nylon tape and sealed. Packages of less than 10 kg are to be wrapped with strong kraft paper and sealed with packing paper tape.

The most convenient size of boxes for handling seed materials are 40 x 30 x 20 cm, 35 x 30 x 20 cm, 30 x 30 x 15 cm, 25 x 20 x 15 cm, and 20 x 20 x 15 cm. Small samples can be sent in jiffy bags (padded bags) of sizes 15 x 25 cm, 21.25 x 36.25 cm, 25 x 40 cm, 31.25 x 47.5 cm.

The polythene bags may be of sizes 60 x 40 cm, 38 x 26 cm, 30 x 20 cm, and 24 x 13 cm, and paper packets 7.5 x 12 cm, 10 x 15 cm sizes depending upon the size and quantity of seeds. The packing should be neat, clean and strong, using new materials for each despatch.

Sometimes the packages may be opened by the customs or plant quarantine officials at the port of entry for examination. The packages should be opened inside an insect proof room and repacked in the same manner, otherwise the whole package should be kept inside a thick and strong polythene bag and sealed before handing over to the consignee.

Seed parcels may be sent through air mail or air freight but not through post letters or sample post or diplomatic pouch.

APPENDICES

APPENDIX 1

APPLICATION FOR PERMIT TO IMPORT PLANTS BY AIR

Date:

To
The Plant Protection Adviser
to the Government of India
Directorate of Plant Protection,
Quarantine and Storage,
N.H. IV, Faridabad (Haryana) - 121 001

Application is hereby made for a permit authorising the importation by air of the plants described below:

Quantity	Exact description of the plants (State here the botanical name of the plants)

Name of the applicant
(IN BLOCK LETTERS)

Name and address of foreign shipper

Country and locality in which grown or produced

Foreign port of departure

Approximate date of arrival in India at Sahar Airport, Bombay/ Meenambakkam, Madras/Dum Dum, Calcutta/Palam, New Delhi

Specific purpose of import

I shall pay to the Government of India any fee prescribed by the Government to meet the cost of inspection and fumigation of this consignment.

Signature of the applicant

Address:

State:

APPENDIX 2

FORM FOR ADVANCE INTIMATION OF SEED SAMPLES TO INDIA

To

Name of ICRISAT Scientist

International Crops Research Institute for the Semi-Arid Tropics

Patancheru - 502 324

Andhra Pradesh, INDIA.

The following consignment has been despatched separately to you.

1. Date of despatch

2. Country/Place

3. i) Crop

   ii) No. of boxes/bags/cartons

   iii) No. of samples

4. Weight

5. Mode of despatch Air freight/Airmail

6. Particulars of phytosanitary certificate:

7. Treatment if given

8. Date(s) of collection

9. Remarks, if any

DATE SIGNATURE

Name

Copy to: Chief Plant Quarantine Officer, ICRISAT, Patancheru, PIN:502 324, Andhra Pradesh, India.

Note: A copy of the Phytosanitary Certificate should be attached with [illegible] letter to facilitate release of [illegible] material.

[redacted]

NATIONAL BUREAU OF PLANT GENETIC RESOURCES
(NBPGR)
NEW DELHI 110 012 INDIA

[redacted]

SEED FOR EXPERIMENTAL PURPOSES
NO COMMERCIAL VALUE
FOR THE USE OF
ICRISAT
(International Crops Research Institute for the Semi-Arid Tropics)

TREATED SEED UNFIT FOR CONSUMPTION
PHYTOSANITARY CERTIFICATE ENCLOSED

Appendix 4
Specimen of Phytosanitary certificate

DIRECTORATE OF PLANT PROTECTION, QUARANTINE AND STORAGE
MINISTRY OF AGRICULTURE
(DEPARTMENT OF AGRICULTURE)
GOVERNMENT OF INDIA

PHYTOSANITARY CERTIFICATE

PLANT PROTECTION SERVICE
OF THE GOVERNMENT OF INDIA

This is to certify that the plants, parts of plants or plant products described below or representative samples of them were thoroughly examined on .....

an authorised officer of the .....

and were found to the best of his knowledge to be substantially free from injurious diseases and pests and that the consignment is believed to conform with the current phytosanitary regulations of the importing country both as stated in the additional declaration hereon and otherwise

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Fumigation or disinfection treatment (if required by importing country)

Date — Treatment

Duration of exposure — Chemical and concentration

Additional declaration

Date
Signature
Rank

(Stamp of the service)

Description of the consignment

Name and address of exporter

Name and address of consignee

Number and description of package

Distinguishing marks

Origin (if required by importing country)

Means of conveyance — Point of entry

Quantity and name of produce

Botanical name (if required by importing country)

"No liability shall attach to the Ministry of Agriculture (Department of Agriculture), Government of India or to any official [illegible] on account of or in connection with the issue of this Certificate."

Appendix 8: Specimen of Import Permit

Fold this form on arrows for mailing in window envelope

U.S. DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
PLANT PROTECTION AND QUARANTINE PROGRAMS
HYATTSVILLE, MARYLAND 20782

IMPORT PERMIT FOR PLANTS AND PLANT PRODUCTS

NO

NAME AND ADDRESS OF PERMITTEE *(Include Zip Code)*

VALID

Permittee should notify Plant Protection and Quarantine Programs promptly of change of address.

UNDER AUTHORITY OF THE PLANT QUARANTINE ACT, AS AMENDED, PERMISSION IS HEREBY GRANTED TO PERMITTEE TO IMPORT IN ACCORDANCE WITH:

THE PLANTS OR PLANT PRODUCTS HEREIN SPECIFIED, GROWN OR PRODUCED IN:

THROUGH THE PORT OR PORTS OF:

QUANTITY AND DESIGNATION OF PLANTS OR PLANT PRODUCTS

SIGNATURE OF AUTHORIZING OFFICIAL

DATE OF ISSUANCE

PPQ FORM 587
AUG. 1978

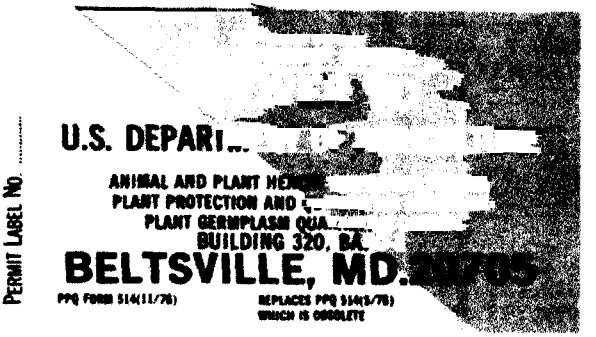
EXISTING STOCK OF PPQ FORM 587, MAY 1976, WILL BE USED UNTIL EXHAUSTED

USDA-APHIS

Appendix 6

Sample of Mailing Label

Obverse Side



Reverse Side

DIRECTIONS TO SHIPPER IN FOREIGN COUNTRY FOR MAILING PLANT QUARANTINE MATERIALS UNDER PERMIT TO THE UNITED STATES

Ship under green and yellow label ONLY materials covered by the permit authorization. Other materials may be denied entry.

Place WITHIN THE PACKAGE consignee's name and address, invoice, and in the case of living plants, an inspection certificate issued by proper officials of your country.

Paste securely to FACE of each package a GREEN AND YELLOW LABEL bearing number of permit or reference to authorization, under which material is being shipped.

DO NOT WRITE ON THIS LABEL.

DO NOT place any delivery address on outside of package. The permit number or reference on label will insure proper delivery.

Place on OUTSIDE OF PACKAGE name and address of shipper, statement of contents, and FULL POSTAGE.

APPENDIX 7

LIST OF NATIONAL PLANT QUARANTINE SERVICES*

Afghanistan

Plant Protection and Quarantine
Ministry of Agriculture
Kabul

Albania

Bureau of Agriculture
Tirana

Algeria

Service de la protection
des végétaux,Ministere
de l'Agriculture
12, Boulevard Colonel
Amirouche,Algier

American Samoa

Agricultural Quarantine
Services,Department of
Agriculture,Government
of American Samoa
Pago Pago,
American Samoa 96799

Antigua

Director
Ministry of Agriculture,
Lands and Fisheries,
St.John's, West Indies

Argentina

Servicio Nacional de Sanidad
Vegetal, Ministerio de Agricul-
tura, Paseo Colon 922|1er Piso,
Officina No.196, Buenos Aires

Australia

Assistant Director General
Plant Quarantine,
Department of Health
Canberra A.C.T.

Austria

Bundesanstalt fÜr Pflanzen-
schutz, Trunnerstrasse 5
A-1021 Wien

Bahamas

Ministry of Agriculture and
Fisheries, P.O.Box 28,
Nassau

Bahrain

Department of Agriculture
Plant Protection Section
P.O.Box 251, Manama

Bangladesh

Department of Agriculture
(Extension and Management)
Director of Agriculture (E&M)
Ansari Building
14/2 Topkhana Road, Dhaka-2

Barbados

Division of Entomology and
Quarantine,
Ministry of Agriculture,
Science and Technology,
P.O. Box 505
Bridgetown

Belgium

Service de la Protection des
Végétaux, Ministère de l'
Agriculture, 36 Rue de
Stassart,1050 Bruselles

Benin

Service du Dèvelopment
Région Agricole du Sud
B.P. 648
Cotonou

---

*Addresses taken from Plant Production and Protection Division Publications FAO (1981) and USDA, Plant Quarantine Summaries, issued by Plant Quarantine Division, Maryland, USA.

Bermuda

Department of Agriculture
and Fisheries, P.O.Box 834,
Hamilton 5

Bolivia

Departmento de Sanidad
Vegetal, Ministerio de
Asuntos Campesinos y
Agropecuarios, La Paz

Botswana

Entomologist
Department of Agricultural
Research, Private Bag 0033
Gaborone

Brasil

Secretaria de Defensa Sanitaria
Vegetal, Ministerio da Agricul-
tura, Esplanada dos Ministerios -
Bloco 8, 70.000 Brasilia - D.F.

British Virgin Islands

Department of Agriculture
Road Town, Tortola

British Solomon Islands

Director
Department of Agriculture
Homaru, Guadalcanal

Brunei

The Director of Agriculture
Department of Agriculture
Bandar Seri Begawan

Bulgaria

Ministry of Agriculture and
Food Industry, Department of
of Plant Protection,
55, Botev Str. Sofia

Burkina F

Section de Lutte Antiacri-
dienne de Protection des
Plantes et des Cultures,
Direction des Services
Agricoles, B.P. 7082
Ouagadougou

Burma

Department of Agriculture
Ministry of Agriculture and
Forests, Rangoon

Central Agricultural Research
Institute, Gyogon, Insein,
Rangoon

Burundi

Institut des Sciences Agrono-
miques du Burundi (ISABU)
Groupe de Phytopathologie et
d'Entomologie, B.P. 795
Bujumbura

Cameroon

Service de la Protection des
Végétaux, Ministère de l'
Agriculture, Yaoundé

Canada

Plant Quarantine Division
Production and Marketing
Branch, Agriculture Canada,
Sir John Carling Bldg, C.E.F.
Ottawa, Ontario K1A OC5

Cape Verde Islands

Service National Protection
des Végétaux, Direction
National de l'Agriculture,
Caixa Postal 50, Praia

Cayman Islands

Department of Agriculture
Grand Cayman

Central African Republic

Direction de l' Agriculture
Service de la Defense des
Cultures, 162 Bangui

Chad

Service National de la
Protection des Végétaux
B.P. 441, N'Djamena

Chile

Director, Division de
Proteccion Agricola, Servicio
Agricola Y Ganadero (SAG),
Ministerio de Agricultura,
Casilla 4088, Santiago

China, People's Republic of

Central China Agricultural
Research and Training
Institute, Wuhan

Colombia

División de Sanidad Vegetal
del Instituto Colombiano
Agropecurio (ICA), Apartado
Aéreo 7948 8
Calle 37 No.8-43 - PS 8°
Bogotá

Cook Islands

Director of Agriculture
Ministry of Agriculture and
Fisheries, Box 96,
Rarotonga

Costa Rica

Departmento de Cuarentena y
Registro, Ministerio de
Agricultura y Ganaderia,
San José

Cuba

Dirección Nacional de Sanidad
Vegetal, INRA,
Departmento de Cuarentena
Vegetal, La Habana

Curacao

Plantentuin Cascora
Willemstad

Cyprus

Plant Protection Section
Department of Agriculture
Ministry of Agriculture and
Natural Resources, Nicosia

Czechoslovakia

Ministerstvo Zemedelstvi a
Lesniho Hospodarstvi,
Ochrana Rostlin, Prague II,
Tesnov 65

Democratic Kampuchea

Division de la Protection des
Végétaux, Department de l'
Agriculture, Phnom-Penh

Denmark

Statens Plantetilsyn
The Government Plant
Protection Service,
Gersonvej 13,
DK-2900, Hellerup

Dominica

Ministry of Agriculture,
Land and Cooperatives,
Roseau

Dominican Republic

Departamento de Sanidad
Vegetal Secretaria de
Estado de Agricultura,
Santo Domingo

Ecuador

Departamento de Sanidad
Vegetal, Ministerio de
Agricultura Y Ganaderia,
Quito

Egypt

Ministry of Agriculture
Dokki, Cairo

Plant Quarantine Administration
Customs Gate 6, Alexandria

El Salvador

Departamento de Defensa Agropecuaria, Ministerio de Agricultura y Ganaderia,
San Salvador

Ethiopia

Department of Plant Production and Protection, Plant Quarantine Service,
Ministry of Agriculture and Settlement, Addis Ababa

Fiji

Department of Agriculture
Rodwell Road
Suva

Finland

Plant Quarantine Unit
Agricultural Research Centre
P.O.Box 18
SF-01301 Vantaa 30

France(including overseas Department of Guadeloupe, Guiana, Martinique and Reunion)

Service de la Protection des Végétaux 231, rue de la Convention, 75015 Paris

Martinique, Guadeloupe and French Guiana only.

Service de la Protection des Végétaux, Boite Postale 241,
Fort de France,
Martinique

Gabon

Direction des Services Agricoles, B.P. 43,
Libreville

Gambia, The

Crop Protection Unit (C.P.U)
Department of Agriculture
Cape St. Mary

German Democratic Republic

Staatlicher Pflanzenschutz - und Pflanzenquarantänedienst der DDR,
Zentrales Staatliches Amt fur Pflanzenchütz und Pflanzenquarantäne beim Ministerium fur Land-,Forst-, und Nahrungsgüterwirtschaft
15 Postdom, Hermannswerder 20 A

Germany, Federal Republic of

Plant Protection Division
Federal Ministry of Food, Agriculture and Forestry
Rochusstr.1, D-5300
Bonn

Ghana

Plant Quarantine Service(PQS)
Department of Agriculture
P.O. Box M-37,
Accra

Greece

Plant Protection Division
Ministry of Agriculture
2 Acharnon St.,
Athens

Grenada

Plant Protection Division
Ministry of Agriculture, Forestry and Fisheries,
St. George's

Guam

Department of Agriculture
Agana 96910

Guatemala

Departmento de Sanidad Vegetal Y Cuarentena Agricola,
12 Avenida 19-01, Zona 1
Ciudad de Guatemala

Guernsey, Channel Islands

State's Committee for Horticulture, Burnt Lane,
St. Martins, Guernsey, C.I.

Guinea

Chief, Service de la Protection des Végétaux, Ministère de l'Economie rurale et de l'Artisanat, Conakry

Guyana

Plant Quarantine Service
Ministry of Agriculture
Central Agricultural Station
Mon Repos, East Coast,
Demerara

Haiti

SERA/DARNDR, Section de Botanique, et de Phytopathologie, Quarantaine Végétale, Damien
Port-au-Prince

Honduras

Programa de Producción Y Proteccion Vegetal
Ministerio de Recursos Naturales
Boulevard Miraflores
Tegucigalpa, D.C.

Hong Kong

Department of Agriculture and Fisheries, Canton Road Government Offices,
12-14th Floors,
393 Canton Road,
Kowloon

Hungary

Plant Protection Centre
Ministry of Agriculture and Food, 1502 Budapest XI,
Post Box 127

Iceland

Agricultural Research Institute,
Keldnaholt, 110 Reykjavik

India

Plant Protection Adviser to Government of India,
Directorate of Plant Protection, Quarantine& Storage, N.H.IV,
Faridabad 121001 (Haryana)

Director, National Bureau of Plant Genetic Resources,
New Delhi 110 012

Indonesia

Head, Directorate of Plant Quarantine, Department of Agriculture, Jalan Salemba 16,
Jakarta

Iran

Sazeman Hefze Nabatat (Plant Protection and Quarantine Organization)
Evin, Teheran

Iraq

Plant Quarantine Division
D.G. of Plant Protection
Sadon Street, Baghdad

Ireland

Plant Protection Service
Department of Agriculture and Fisheries,
Kildare St., Dublin 2

Israel

Department of Plant Protection
Ministry of Agriculture
P.O. Box 15030, Yaffo 61150

Italy

Division for the Protection of Farm Crops, Ministry of Agriculture and Forestry
Directorate General for Agricultural Production - Division II, Via XX Settembre
Rome

Ivory Coast

Service de la Protection des Végétaux, Ministère de l' Agriculture, B.P. V7
Abidjan

Jamaica

Plant Protection Division
Ministry of Agriculture
P.O. Box 480
Hope, Kingston

Japan

Plant Protection Division
Agricultural Production Bureau
Ministry of Agriculture, Forestry and Fisheries
1-2-1 Kasumigaseki
Chiyoda-ku, Tokyo

Jersey

Chief Executive Officer
Department of Agriculture and Fisheries, 44 Esplanade,
St.Helier, Jersey,
Channel Islands

Jordan

Plant Protection Division
Agriculture Services Department
Ministry of Agriculture
Amman

Kampuchea(Cambodia)

Director of Agriculture
Department de l' Agriculture
Phnom-Penh

Kenya

National Agricultural Laboratories, P.O. Box 30028,
Nairobi

Kiribati(Gilbert Islands)

The Senior Agricultural Officer
Department of Agriculture
Bikenibeu, Tarawa

Korea, Republic of

Ministry of Agriculture and Fisheries, Bureau of Agricultural Production,
77 Sejongro, Chongroku,
Seoul

Kuwait

Plant Protection and Quarantine Section, Ministry of Public Works, Agriculture Department,
Kuwait

Lao People's Democratic Republic

Department de l'Agriculture
Ministère de l'Agriculture
Vientiane, Laos

Lebanon

Department of Plant Protection and Quarantine, Ministry of Agriculture, Beirut

Liberia

The National Plant Quarantine Service, Ministry of Agriculture, Monrovia

Libya

Plant Protection Section
Ministry of Agriculture and Agrarian Reform,
Sidi Mesri, Tripoli

Luxembourg

Services Techniques de l'Agriculture, Service de la Protection des Végétaux, Boite Postale 1904, Luxembourg

Madagascar

Service de la Protection des Végétaux, Boite Postale 1042, Antananarivo

Malawi

Chief,
Bvumbwe Research Station (Plant Imports), Ministry of Agriculture and Natural Resources, Department of Agricultural Research,
P.O. Box 5748, Limbe

Malaysia

Crop Protection Branch
Department of Agriculture
Jalan Gallagher
Kuala Lumpur

Mali

Service de la Protection des Végétaux, B.P. 1908,
Bamako

Malta

Plant Health Division
Department of Agriculture and Fisheries, Government Experimental Farm,
Ghammieri, Marsa

Mauritania

Directeur
Centre National de Recherche Agronomique et de Developpement, Agricola (CNRA), Kaedi

Mauritius

Plant Pathology Division (Plant Protection Service)
Ministry of Agriculture and Natural, Resources and the Environment, Reduit

Mexico

Direccion General de Sanidad Vegetal (DGSV), Av. Gmo.Perez Valenzuela No.127
Coyoacan, D.F. (S.P.21)

Montserrat

Ministry of Agricultre, Lands, Trade and Housing, Plymouth

Morocco

Service de la Protection des Végétaux, Direction de la Recherche Agronomique (D.R.A)
B.P. 415, Rabat

Mozambique

Chefe des Servicios
Servicios de Agricultura
Maputo

Nepal

Division of Plant Pathology
Department of Agriculture
Khumaltar, Lalitpur
P.O. Box 415.

Netherlands (The)

Plant Protection Service
Geertjesweg 15,
P.O.Box 9102
6700 HC Wageningen

New Caledonia

Service de l' Agriculture
B.P. 34, Noumea

New Hebrides

Service de l' Agriculture
Vila

New Zealand

Ministry of Agriculture and
Fisheries, P.O. Box 2298,
Wellington

Nicaragua

Department de Sanidad Vegetal
del MAG, Ministerio de
Agricultura Y Ganaderia,
Managua, D.N.

Niger

Service de la Protection des
Végétaux, Direction du
Service de l' Agriculture
B.P. 323, Niamey

Nigeria

Project Director
Plant Quarantine and
Introduction Services,
PMB 5672, Moor Plantation
Ibadan

Niue Island

Department of Agriculture
Alofi

Norway

Norwegian Plant Inspection
Service, B.P.Okern, Oslo 5

Pakistan

Department of Plant Protection
Malir Halt, Jinnah Avenue,
Karachi 27

Panama

Departmento de Investigación
Agricola, Sección de Cuarentena
Agropecuaria, Ministerio de
Agricultura, Comercio e
Industrias, Panamá R. de P.

Papua New Guinea

Department of Agriculture,
Stock and Fisheries,
P.O. Box 2417, Konedobu

Paraguay

Division de Sanidad Vegetal
Ministerio de Agricultura y
Ganaderia (MAG), Asuncion.

Peru

Unidad de Inspección y Control
Fitosanitario, Ministerio de
Alimentacion, 10° Piso del
Ministerio de Trabajo,
Av. Salaverry s/n, Lima

Philippines

Plant Quarantine Section
Bureau of Plant Industry(BPI)
692 San Andres, Malate,
Manila

Poland

Ministerstwo Rolnictwa
(Ministry of Agriculture
Department Produkcji Roślinnej
i Ochrony Roślin
(Department of Plant Production
and Protection), Warszawa,
ul. Wspólna 30

Polinesie Francaise

Service de l' Economic Rurale
B.P. 100, Papeete

Portugal

Reparticao de Servicos
Fitopatológicos (R.S.F)
Lisbon 3

Puerto Rico

Plant Quarantine Section
Puerto Rico Department of
Agriculture, P.O.Box 101613
Santurce 00908

Reunion Islands

Service de la Protection des Végétaux, Ministère de l'Agriculture, Boite Postal No.312, Saint-Denis, Reunion

Romania

Serviciul de Protectia Plantelor(S.P.P.), Bucaresti, Bd.Republicii, nr.24, Ministerul Agriculturii si Industriei Alimentare Bucuresti

Rwanda

Bureau de la Protection Vegetale Ministere de l'Agriculture et de l'Elevage, B.P.621, Kigali

Samoa

Department of Agriculture and Forests, P.O. Box 206, Apia

Saudi Arabia, Kingdom of

Plant Protection Branch Agricultural Research and Development Department Ministry of Agriculture and Water, Riyadh

Seychelles

Director of Agriculture Victoria Mahe

Senegal

Direction de la Protection des Végétaux, Ministère du Developpement Rurale et de l'Hydraulique, Boite Postale No.486 Dakar

Sierra Leone

Phytosanitary Control Unit M A N R, Tower Hill Freetown

Singapore

Primary Production Department Ministry of National Development, Maxwell Road Singapore 2

Solomon Islands

Ministry of Agriculture and Lands Plant Quarantine Section P.O. Box G 11 Honiara

Somali Democratic Republic

Plant Protection and Locust Control Department Ministry of Agriculture Mogadishu

South Africa

Division of Plant and Seed Control, Private Bag X179, Pretoria 0001

Spain

Servicio de Defensa Contra Plagas e Inspección Fito-patológica, Juan Bravo 3B Madrid-6

Sri Lanka

Deputy Director of Agriculture(Res) Central Agricultural Research Institute, Department of Agriculture,Gannoruwa, Paradeniya

St Kitts

Ministry of Agriculture, Housing and Labour, P.O. Box 39 Basseterre

Saint Lucia

Chief Agricultural Officer
Department of Agriculture
Ministry of Agriculture and Lands
Castries

St Vincent

Chief Agricultural Officer
Ministry of Agriculture,
Trade and Tourism
Kingston

Sudan

Director
Plant Protection Department
Ministry of Agriculture and
Irrigation, P.O. Box 14
Khartoum North

Surinam

Plant Protection and Production
Division, Ministry of Agriculture
Animal Husbandry and Fisheries
P.O. Box 1153
Paramaribo

Swaziland

Director of Agriculture
Malkerns Research Station
P.O. Box 4, Malkerns

Sweden

National Board of Agriculture
Plant Protection Service
S-551 83 Jönköping

Switzerland

Division de l' Agriculture du
Department Fédéral de l'Economie
Publique, Mattenhofstrasse 5
3003 Berne

Syrian Arab Republic

The Director
Plant Protection and Quarantine
Division, Ministry of
Agriculture and Agrarian Reform
Damascus

Tahiti

Monsieur le Chef du Service de
l'Agriculture, Pirae, Papeete
Tahiti, Polynésie Francaise

Taiwan

Bureau of Commodity Inspection
and Quarantine, Ministry of
Economic Affairs,
5 Hsu Chou Road, Taipei
Taiwan

Tanzania, United Republic of

Ministry of Agriculture
P.O. Box 9071
Dar-es-Salaam

Thailand

Agricultural Regulatory Division
Plant Quarantine and Pesticide
Regulatory Building
Kasetsart Campus,
Department of Agriculture
Ministry of Agriculture and
Cooperatives, Bangkok 9

Togo

Service de la Protection des
Végétaux, B.P. 1263
Lomé

Tonga

Plant and Animal Quarantine
Service, Ministry of Agricul-
ture, Fisheries and Forestry,
P.O. Box 14, Nuku'alofa

Trinidad and Tobago

Technical Officer (Research)
Ministry of Agriculture,
Lands and Fisheries,

Trust Territory

Chief of Agriculture
Office of the High Commissioner
Trust Territory of the Pacific
Islands, Saipan
Mariana Islands 96950

Tunisia

Direction de la Production
Végétale (Sous-Direction
de la Défense des Cultures),
30 Rue Alain Savary, Tunis

Turkey

Ministry of Food, Agriculture
and Animal Husbandry,General
Directorate of Plant Prote-
tion and Plant Quarantine,
Necatibey Cad. No.98
Ankara

Turks and Caicos

The Administrator
Grand Turk

Tuvalu

Ministry of Commerce and
Natural Resources
Funafuti

Uganda

Department of Agriculture
Plant Protection Unit
Kawanda Research Station
P.O. Box 7065
Kampala

Union of Soviet Socialist
Republics

Plant Protection and Quaran-
tine Service of the USSR
Moscow, B-139,
Orlikov per., 1/11

United Kingdom

England and Wales
Plant Health Administrative Unit
Ministry of Agriculture,
Fisheries and Food,
Eagle House,
90-96 Cannon Street
London EC4N 6HT

Northern Ireland
Potatoes, Plant Health and
Seeds, Department of
Agriculture for Northern
Ireland, Dundonald House,
Upper Newtownards Road
Belfast BT4 3SB

Scotland

Potatoes and Plant Health Branch
Department of Agriculture and
Fisheries for Scotland,
Chesser House,
500 Gorgie Road
Edinburgh EH11 3AW

United States of America

U.S. Department of Agriculture
Animal and Plant Health
Inspection Service, Plant
Protection and Quarantine
Programs (USDA/APHIS/PPQ)
302-E Administration Building
Washington, D.C. 20250

U.S. Trust Territory of the
Pacific Islands

Agricultural Division
Department of Resources and
Development, Saipan,
Mariana Island 96950

Uruguay

Dirección de Sanidad Vegetal
del Ministerio de Agricultura
Y Pesca Actividad Lucha Masiva,
Millan 4703, Montevideo

Venezuela

Dirección de Sanidad Vegetal
Ministerio de Agricultura
y Cria Torre Norte, Centro
Simón Bolivar, Caracas 101

Viet Nam

Plant Protection Service
Department of Rural Affairs
P.O. Box 427
Hanoi

Yemen Arab Republic

Plant Protection Division
Ministry of Agriculture
Sana'a

Yemen, People's Democratic Republic of

Plant Protection Project
El Ked Agricultural Research
Centre, Ministry of Agriculture
Aden

Yugoslavia

Federal Committee for Agriculture
Department for Plant Protection
and Veterinary Service
Bulevar Avnoj-a 104
11070 Beograd

Zaire

Inspecteur-Chef
Service du Controle
Phytosanitaire, B.P. 8722
Kinshasa I

Zambia

The Phytosanitary Service
Mount Makulu Central Research
Station, P.O. Box 7
Chilanga

Zimbabwe

Plant Protection Research
Institute, Ministry of
Agriculture, P.O. Box 8100
Causeway, Harare

APPENDIX 8

APPLICATION FOR IMPORTATION OF LIVING FUNGI IN PURE CULTURE

1. Name, designation and full address of the Importer _____

2. Name of the fungus to be imported _____

3. Country from which importation is sought _____

4. Whether importation is intended by sea, land or air _____

5. Whether in its original home the fungus is a parasite, if so, the name of the host plant _____

6. Name, designation and address of the exporter _____

7. Purpose of importation _____

The above information is true to the best of my belief.

Date:_____

(Signature of the Importer)

APPENDIX 9

APPLICATION FOR IMPORTATION OF INSECTS

1. Name and designation and full address of the importer ----------

2. Name of the insect species to be imported ----------

3. Stage or stages of the insect to be imported ----------

4. Country from which importation is sought ----------

5. Whether importation is intended by sea, land or air ----------

6. Whether in its original home it is a weed pest, parasite or a predator ----------

7. (i) Name(names) of the weed (weeds) on which it is a pest in the country of origin. ----------

   (ii) Name(names) of the pest (pests) on which it is a parasite or predator in the country of origin ----------

8. Name, designation and address of the exporter ----------
   ----

9. Quantity indented for ----------

10. Purpose of importation ----------

Date:----------

(Signature of the Importer)

APPENDIX 10

Plant Quarantine import regulations of different countries in respect of ICRISAT mandate crops*

Country	Import permit required	Phyto-sanitary certificate required	Importation prohibited	Special import requirements and other information
(1)	(2)	(3)	(4)	(5)
Afghanistan	YES	YES		
Albania	-	YES		
Algeria	YES	YES		
American Samoa	YES	YES		
Angola	-	YES		
Antigua	YES	YES		
Argentina	-	YES		1.Borghum seeds must be free from plant refuse. 2. Importation of chickpea seeds with less than 95 percent purity and 55 percent germination prohibited. Shipments not exceeding 500 grams are exempt.
Australia	YES	YES		Additional declaration that the seeds in the shipment have been inspected and found apparently free from all species of the genus Trogoderma is required. Exempted from this requirement are commercial seed lines upto 100 gm in weight and seeds brought in by travellers.
Austria	YES	YES		

*Information compiled from summaries issued by USDA, Agriculture Research Service, Plant Quarantine Division, Maryland, FAO Publications, FAO Plant Protection Bulletin, and country rules and regulations.

Bahamas	YES	YES		
Bangladesh	YES	YES		
Barbados	YES	-		
Belgium	-	-		
Belize (British Honduras)	YES	YES		
Benin (Dahomey)	-	YES		
Bermuda	-	-		Import permit is required for peat.
Bolivia	YES	YES	Granary weevil Sitophilus (Calandra) granarius	
Botswana	YES	YES		
Brazil	Yes(for sorghum millet & maize)	YES		1.Stalks, ears and leaves of sorghum must be certified as originating in areas free from European corn borer Ostrinia (Pyrausta) nubilalis. 2.Seeds of sorghum to be free from panicles, stalks, leaves, etc. capable of carrying the borer. Also see page 10.
British Solomon Islands	YES	YES		
British Virgin Islands	-	-		
Brunei	YES	YES		Additional declaration for groundnut seeds: 1.The parent plants were inspected in active growth and found free from virus diseases. 2.The seeds have been treated before despatch with a fungicidal seed dressing.

Bulgaria	YES	YES		Import permit required for plants and plant materials imported from places or countries infested or infected with Callosobruchus chinensis, Rhyzopertha dominica, Trogoderma spp., Sitophilus zea-mais, Sclerotium rolfsii, bacterial and virus diseases of cereals.
Burkinna Faso	-	YES		
Burma	-	YES	Chickpea	
Burundi	-	-		
Cameroon	-	YES		
Canada	-	YES		Federal phytosanitary certificate based on inspection approximately 14 days before export required.
Cape Verde Islands	-	YES		
Central African Republic	YES (Groundnut)	YES		
Chad	-	YES		
Chile	YES	YES	Insects Belonging to the family Bruchidae, and Sitotroga cerealella are prohibited.	Additional declaration stating that chickpea seeds - 1.were produced in an Ascochyta rabiei free area. 2.originated from an area where Cornebacterium flaccumfasciens, Pseudomonas phaseoli, P. pisi and Xanthomonas phaseoli are not known to occur.
China (Peoples' Republic of)	-	YES		Seeds to be free from insects Callosobruchus maculatus, Sitophilus granarius and Trogoderma granarium.
Colombia	YES	YES		Additional declaration that the shipment is apparently free from khapra beetle (Trogoderma granarium) is required.

Congo	-	YES		
Cook Islands	-	YES	Peanuts	
Costa Rica	YES	YES		Additional declaration: 'That the plants were inspected during active growth and found apparently free from sorghum downy mildew caused by Peronosclerospora sorghi' OR 'That the seeds in this shipment were produced in areas known to be free from sorghum downy mildew caused by P. sorghi'.
Cuba	YES	YES		Seed should be free from soil.
Cyprus	YES	YES	Importation of groundnut in shell is prohibited.	1.Seeds with soil adhering prohibited. 2.Inspection of plants and plant produce should be carried out not earlier than 10 days before the shipment. 3.Treatment for shelled groundnut whether fumigated under vacuum or atmospheric pressure to be mentioned in Federal Phytosanitary Export Certificates.
Czecho-solovakia	-	-		
Denmark	-	.-		
Dominica, W.I.	YES	YES(for sorghum & millet)		
Dominican Republic	YES	YES		
Ecuador	-	YES		

Egypt	YES	YES	1.Chickpea seeds contaminated with Ascochyta blight. 2.Sorghum seeds contaminated with head smut, long smut and covered kernel smut.	Seeds import are exempted from certification requirements, if imported by mail or passengers baggage on condition that their weight does not exceed 0.5 kg.
El Salvador	YES	YES		Additional declaration: 'That the parent plants were inspected during active growth and found apparently free from sorghum downy mildew caused by Peronosclerospora sorghi'. OR 'That the seeds in this shipment were produced in areas known to be free from sorghum downy mildew caused by P. sorghi'.
Equatorial Guinea	-	-		
Federal Rep. of Germany (West Germany)	-	-		
Fiji	YES	YES		
Finland	-	-		Seeds must be free from Trogoderma granarium and Fusarium spp.
France	-	-		
French Equatorial Africa	-	YES		
French Guiana	-	-		

French Somaliland	-	YES	
Gabon	-	YES	
Gambia	YES	YES	
German Democratic Republic (East Germany)	-	YES	1.Certificates should be issued within 20 days before shipment. 2.Freedom from Bruchidae and cereal stored grain pests.
Ghana	YES	YES	
Gilbert & Ellice Islands	YES	YES	
Great Britain	-	YES	Phytosanitary certificate issued not more than 14 days before shipment is required.
Greece	YES	YES	1.Phytosanitary certificate to be issued not more than 14 days before loading. 2.Additional declaration that the fields were inspected during cultivation and found free from significant bacteria and viruses is required besides disinfection. 3.No phytosanitary certificate for more than 50 g of fine seeds or 1000 g of large seeds, if accompanied as passengers baggage or sent as a gift or sample. 4.Seeds must be free from stored product pests.
Grenada	-	-	
Guadeloupe	-	-	

Guatemala	-	YES	Additional declaration: 'That the parent plants were inspected during active growth and found apparently free from sorghum downy mildew caused by Peronosclerospora sorghi'. OR 'That the seeds in this shipment were produced in areas known to be free from sorghum downy mildew P. sorghi'.
Guernsey	-	YES	
Guinea	-	YES	
Guyana (British Guyana)	-	YES	
Haiti	-	-	
Honduras	YES	YES	Additional declaration: 'That the parent plants were inspected during active growth and found apparently free from sorghum downy mildew caused by Peronosclerospora sorghi'. OR 'That the seeds in this shipment were produced in areas known to be free from sorghum downy mildew caused by P. sorghi'.
Hong Kong	YES	YES	1.*Phytosanitary certificate* signed not more than 14 days before shipment is required. 2.Import of groundnut as decorticated seeds only is accepted.
Hungary	-	YES	No Phytosanitary certificate required for ground or milled consignment.

Iceland	-	YES		Certificate of inspection should not be issued longer than a month prior to the date of despatch.
India	-	YES	Undecorticated groundnut seeds.	See pages 4 and 5.
Indonesia	-	YES		
Iran	YES	YES		1.Details of treatment must be included in the inspection certificate. 2.Import of sorghum is prohibited, but is allowed in limited quantities for scientific or research purpose with the prior approval of the Plant Quarantine Service, Iran.
Iraq	-	-		
Ireland Republic	-	YES		
Israel	YES	YES		1. The inspection referred to in the phytosanitary certificate must be performed within 14 days prior to shipment of seeds. 2. Raw shelled peanuts are enterable under import permit with an additional declaration that the seeds were produced in an area certified to be free from peanut rust caused by Puccinia arachidis.
Italy	-	YES	Oryzaephilus mercator, Trogoderma granarium.	Phytosanitary certificate to be issued not more than 14 days before shipment.
Ivory Coast	-	YES		
Jamaica	-	-		
Japan	-	YES		

Jersey	-	-	Peat	
Jordan	YES	YES		
Kampuchea (Cambodia)	-	-		
Kenya	YES	YES		
Korea (Republic of)	-	YES		
Laos	-	YES		
Lebanon	YES	-		
Lesotho	-	YES		
Liberia	YES	YES		
Libya	YES	YES		
Luxemburg	YES	YES		
Malagasy (Madagascar and Comoro Islands)	-	YES		
Malawi	YES	YES	Sorghum (from countries east of 60° east longitude)	See pages 11 and 12.
Malaysia	YES	YES		Phytosanitary certificate accompanying consignment should be issued not earlier than 15 days before shipment.
Mali	-	YES		
Malta	YES	YES		PSC to be issued not more than 14 days before shipment.
Martinique	-	-		
Mauritania	-	YES		
Mauritius	YES	YES		See page 12.

Mexico	YES	YES		PSC must indicate that "The commodity(ies) in this shipment originated in an area free from Khapra beetle
Montserrat	-	-		
Morocco	-	-		
Mozambique	YES	YES	Sorghum stalks	Freedom from Sclerospora spp. in case of sorghum and pearl millet and seed treatment with mercurial fungicide and fumigation of chickpea and pigeonpea seeds required on the PSC.
Nepal	YES	-	Groundnut seedlings/ plants.	
The Netherlands	-	-		
New Caledonia	YES	YES		Groundnut seeds to be treated with an organomercuric compound before export.
New Hebrides	-	YES		
New Zealand	-	YES	Sorghum	PSC to be signed not earlier than 14 days after shipment.
Nicaragua	YES	YES		Additional declaration: 'That the parent plants were inspected during active growth and found apparently free from sorghum downy mildew caused by Peronosclerospora sorghi'. OR 'That the seeds in this shipment were produced in areas known to be free from sorghum downy mildew caused by P. sorghi'.
Niger	-	YES		

Nigeria	YES	YES	Sorghum leaves, stalk,etc, except seeds, prohibited.	1.Sorghum seeds to be treate with fungicides. 2.Additional declaration required that the peanut seeds were harvested from fields which were inspected during active growth and found free from seed borne virus diseases. Also see page
Northern Ireland	YES	YES		PSC must be signed not more than 14 days before shipment.
Norway	-	YES		Inspection for issue of PSC should be carried out within 14 days before shipment.
Oman	-	YES		
Pakistan	YES	YES		
Panama	-	YES		Additional declaration: 'That the parent plants were inspected during active growth and were found apparently free from sorghum downy mildew caused by Peronosclerospora sorghi'. OR 'That the seeds in this shipment were produced in areas known to be free from sorghum downy mildew caused by P. sorghi'.
Papua New Guinea	YES	YES		1. Seeds of peanut prohibited without import permit. 2. Peat prohibited except under permit.
Paraguay	YES	YES		
Peru	YES	YES		1.Freedom from khapra beetle (Trogoderma granarium) infestation must be mentioned in PSC. 2.Seeds in diplomatic pouches prohibited.

Philippines	YES	YES		
Poland	-	YES		1.PSC should be issued not earlier than 20 days before shipment. 2.Additional declaration in the PSC that the consignment is substantially free from Bruchids, Calandra oryzae, C. zea-mais, Rhyzopertha dominica, Tribolium spp. and Trogoderma granarium.
Portugal	YES	YES		
Reunion Islands	YES	-		
Romania	YES	YES		1.Inspection certificate to be signed not more than 20 days before shipment. 2.Callosobruchus chinensis, C. quadrimaculatus and Trogoderma granarium prohibited.
Rwanda	-	YES		
Ryukyu Islands	-	YES		
Saudi Arabia	-	YES		Treatment with appropriate fungicide to be indicated in the PSC.
Senegal	For ground-nut	YES		
Seychelles	YES	YES		
Sierre Leone	-	YES	Groundnut	
Solomon Islands	YES	YES		
Somalia	-	YES		

South Africa	YES	YES	PSC issued not more than 14 days before shipment is required. Additional declarations: Sorghum: 1.Parent plants inspected during active growth and found free from Pseudomonas andropogoni. 2.Treatment with an appropriate fungicide against Drechslera spp. and fumigation to be specified. Chickpea: 1.Parent plants were inspected during active growth and found free from Ascochyta(Mycosphaerella) rabiei; or that Ascochyta rabiei does not occur in the area of production. Groundnut: 1.Parent plants were inspected during active growth and found free from groundnut mottle virus, peanut marginal chlorosis virus and peanut stunt virus OR declaration that the above mentioned diseases do not occur in the area of production. 2.Treatment with an appropriate fungicide to be specified.
Spain	-	YES	
Sri Lanka	YES	-	Inspection certificate not required unless specified in the import permit.
St.Kitts and Nevis	-	-	
St.Lucia	For sorghum & pearl millet	YES	
St.Vincent	-	YES	Groundnuts(Peanuts) on import permit only.
Sudan	YES	-	PSC required, if import permit so specifies.

Surinam	-	YES	Importation of one consignment at a time is permitted.
Swaziland	YES	YES	Groundnut plants were found free from mottle virus, stunt virus, and marginal chlorosis during growth.
Sweden	-	YES	Any treatment or fumigation given must be authorised in advance and the method used must be indicated on inspection certificates.
Switzerland	-	-	
Syria	YES	YES	
Tahiti	-	YES	
Taiwan	-	YES	PSC issued by the Government of exporting countries to state that sorghum is free from gumming disease (Xanthomonas vasculorum) (Cobb)Dow.) and originates from areas free of gumming disease.
Tanzania	For groundnut, millets & sorghum.	YES	Seeds must be imported by parcel post unless permission to import by other means is obtained.
Thailand	-	For groundnut	
Turkey	YES	YES	Consignment to be free from Trogoderma granarium.
Togo	-	YES	
Tonga	-	YES	
Trinidad and Tobago	YES	YES	
Trust Territory	YES	-	PSC is required if specified in the import permit.
Tunisia	-	YES	
Uganda	-	YES	

U.S.A.	YES	YES		All seed material to pass through USDA, Animal and Plant Health Inspection Service, Plant Protection and Quarantine, Federal Building, Hyattsville, Maryland 20782 U.S.A. Special conditions of entry will be specified in the permit.
U.S.S.R.	YES	YES	Seeds carried in baggage or mailed to individuals.	Freedom from Trogoderma granarium and Callosobruchus maculatus.
Uruguay	YES	YES		1.Chickpea seeds must be treated before export with an insecticide or fungicide. 2.Each package containing seeds treated with toxic substance must be marked "Poison(Veneno)".
Vanatu (New Hebrides)	-	YES		
Venezuela	YES	YES		
Viet Nam	-	YES		
Yugoslavia	-	YES	Callosobruchus chinensis, C.maculatus, Trogoderma granarium.	Additional declarations: 1.Plants originated in an area free from prohibited plant pests and diseases. 2.The propagating material was derived from plants which were free from prohibited plant pests and diseases. 3.The plants were inspected during the growing season and found free from prohibited plant pests and diseases.
Zambia	For groundnut	YES		For groundnut vegetative material PSC with additional declaration that the plants have been inspected during active growth and found free from prohibited plant pests and diseases.
Zaire	-	YES		

Zimbabwe	For groundnut only	YES	1.PSC must certify that groundnut was inspected during the growing season and found substantially free from pests and diseases. 2.Groundnut seeds to be imported through Salisbury/ Harare only. 3.Post entry quarantine for groundnut.

APPENDIX II

PROFORMA FOR FIELD INSPECTION OF SORGHUM

Field No: Report No: Program:

Date of sowing. Date of inspection: Stage of the crop:

Area of the field: Area of the field inspected:

Row No.	No. of plants inspected	No. of plants showing disease symptoms						Remarks
		*Downy mildews	Leaf spots Bacterial/ Fungal	Charcoal rot	Ergot	Smuts	Head molds	

Any other diseases which are not covered in the Table such as Pseudomonas andropogoni, Drechslera maydis, Periconia circinata, Urocystis agropyri, Ophiobolus graminis, Xanthomonas stewartii, X. vasculorum, and maize dwarf mosaic virus.

Condition of the crop:

Signature of the inspecting scientist

*Sclerophthora macrospora, Sclerospora philippinensis, S. graminicola, S. sacchari and Peronosclerospora sorghi.

APPENDIX 12

PROFORMA FOR FIELD INSPECTION OF PEARL MILLET

Field No: Report No: Program:

Date of sowing: Date of inspection: Stage of the crop:

Area of the field: Area of field inspected:

Row No.	No. of plants inspected	No. of plants showing disease symptoms: *Downy mildews	Leaf spot/ blast	Ergot	Smuts	Remarks

Any other diseases which are not covered in the Table such as Urocystis agropyri, Ophiobolus graminis, Ustilago spp. and Xanthomonas poaniti.

Signature of the inspecting scientist

Condition of crop:

*Sclerospora graminicola, S. philippinensis, S. sacchari and Sclerophthora macrospora.

APPENDIX 13

PROFORMA FOR FIELD INSPECTION OF PIGEONPEA

Field No: Report No: Program:

Date of sowing: Date of inspection: Stage of the crop:

Area of the field: Area of field inspected:

Row No.	No. of plants inspected	No. of plants showing disease sympt: Collar/ Root rot	Anthrac-nose	Pea mosaic virus	Tomato spotted wilt virus	Bacterial disease	Remarks

Any other diseases which are not covered in the Table such as Pseudomonas diei and alfalfa mosaic virus.

Signature of the inspecting scientist

Condition of the crop:

APPENDIX 14

PROFORMA FOR FIELD INSPECTION OF CHICKPEA

Field No: Report No: Program:

Date of sowing: Date of inspection: Stage of the crop

Area of the field: Area of field inspected:

Row No.	No. of plants inspected	No. of plants showing disease symptoms				Remarks
		Ascochyta blight	Botrytis grey mould	Root rot/ Stem rot/ Collar rot.	Wilt/ Anthracnose	

Any other diseases which are not covered in the Table, such as Pseudomonas sisi, downy mildew, Gibberella baccata, alfa alfa mosaic virus, pea mosaic virus and tomato spotted wilt virus.

Signature of the inspecting scientist

APPENDIX 15

PROFORMA FOR FIELD INSPECTION OF GROUNDNUT

Field No: Report No: Program:

Date of sowing: Date of inspection: Previous crop:

Area of the field: Area of field inspected: Stage of the crop:

Row No.	No. of plants inspected	No. of plants showing disease symptoms: Collar/ Root rot	Bacterial wilt	Rust	Peanut mottle virus	Peanut rosette/clump virus	Remarks

Any other diseases which are not covered in the Table such as marginal chlorosis, ring spot/mottle peanut stunt and bunchy top viruses and Diplodia gossypina.

Condition of the crop:

Signature of the inspecting scientist

APPENDIX 16

INTERNATIONAL CROPS RESEARCH INSTITUTE
FOR THE SEMI-ARID TROPICS

REQUEST FOR SEED/PLANT/PLANT PRODUCTS* EXPORT

Seed Material

Crop _____

Samples _____

Origin of seed _____

Description _____

Objective _____

Consignor _____

Program _____ Budget Code: _____

Consignee _____

Address _____

_____

_____

_____

Special instructions _____

_____

_____

Import permit _____

Date: _____ Signature _____

*Plant products mean flour, crushed grains, etc.

N.B: Please do not fail to mention objective.