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# PHYTOSANITARY **INSPECTION GUIDELINE FOR KENYA**





















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#### PHYTOSANITARY INSPECTION GUIDELINE FOR KENYA

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## FOREWORD

The EU in partnership with the EAC launched the Market Access Upgrade Programme (MARKUP) to support member countries improve market access of agro-food products to the EU and regional markets. MARKUP is structured around two intervention levels: the EAC Regional Window and the Partner States National Window with country specific projects. UNIDO is the implementation partner for the Kenya-Partner States Window.

The main purpose of this project is to contribute to the economic development of Kenya by increasing the value of both extra and intra-regional agricultural exports in selected horticulture sub sectors; (French beans, snow peas, mangoes, passion fruit, chillies, herbs and spices, nuts) and facilitating their compliance with export market requirements and standards.

As part of this support, KEPHIS experts alongside an independent expert were requested to develop a plant health inspection guideline with procedures for a robust risk-based plant health inspection system.

This guide was prepared with extensive information drawn from the current KEPHIS inspection procedures as well as consultations with the senior management. The suggested procedures were guided by the provisions of International Standards for Phytosanitary Measures (ISPMs), adopted by the Commission on Phytosanitary Measures (CPM), a governing body of the International Plant Protection Convention (IPPC). Further information was drawn from resources and practice available from other NPPOs globally. Agriculture and Food Authorities (AFA)s Horticultural Crop Directorate (HCD) was consulted for information on exporters and procedures applied in licensing of exporters.

This is a generic guide that will be used by the plant health inspectors when inspecting plant products for export. It is expected that the guide will be also applied as a baseline in the preparation of more specific commodity-based guides that will have more specific details on plant products.

Prof. Theophilus Mutui Managing Director, KEPHIS

#### 01. KENYA PLANT HEALTH INSPECTORATE SERVICE

#### A. Mandate

The Kenya Plant Health Inspectorate Service is established by the KEPHIS Act Number 54 of 2012

#### **KEPHIS Mandate includes**

- 1. To regulate matters relating to plant protection, seeds and plant varieties.
- 2. To administer and enforce sanitary and phytosanitary measures.
- 3. To support the administration and enforcement of food safety measures.
- 4. To establish service laboratories to monitor the quality and levels of toxic residues in agroinputs, irrigation water, plants, soils and produce.
- 5. To be the principal advisor to the government on issues relating to seeds and planting material.
- 6. To implement plant variety protection in Kenya, administer plant breeders' rights and maintain the plant breeders' rights register.
- 7. To undertake plant variety testing and description, seed certification and plant quarantine control.
- 8. To undertake inspection and grading of plants and plants produce at the ports of entry and exit;
- 9. In consultation with other relevant agencies, to develop and implement standards for seed and plant materials.
- 10. To implement and enforce national biosafety regulations on the introduction and use of genetically or living modified species of plants, insects and micro-organisms, plant products and other related species.
- 11. To regulate import and export of plants and plant materials.
- 12. In consultation with other relevant agencies, to regulate the commercial exploitation of naturally occurring plants and plant-related microorganisms.
- 13. To register and license seed merchants, seed growers, agents and any other person who may be required to be registered under the provisions of this act or any of the laws specified in the first schedule.
- 14. To enter into association with such other bodies or organizations or authorized persons as the board may consider desirable or appropriate in furtherance of the purposes for which the service is
- 15. As established, to be the liaison office for international conventions relating to plant variety protection, plant protection, seed certification and dealing with endangered species or any other related conventions.

#### B. Vision

Healthy plants, safe trade and sustainable agro environment for a prosperous Kenya.

#### C. Mission- to be adopted

To provide a science based regulatory service by assuring plant health, quality of agricultural inputs and produce for food security, globally competitive agriculture and sustainable development.

#### D. Strategic Objectives

- 1. To protect plants from pests, weeds, and invasive species.
- 2. To facilitate review and strengthening of the policy, legal and regulatory framework, so that it is in tandem with both local and international agricultural sector emerging issues.
- 3. To contribute towards improved levels of agricultural productivity.
- 4. To support compliance to market requirements.
- 5. To build adequate technical and infrastructural capacity to facilitate efficient and effective delivery of the KEPHIS mandate.
- 6. To mobilize adequate financial resources and ensure optimal allocation and utilization to enable full implementation of planned programmers and activities.
- 7. To enhance synergies through information and resource sharing with stakeholders and partners.
- 8. To enhance the visibility and corporate image of KEPHIS.

#### 02. SCOPE/PURPOSE OF THE GUIDE

#### Background

The EU in partnership with the EAC has launched the Market Access Upgrade Programme (MARKUP) to support member countries improve market access of agro-food products to the EU and regional markets. The MARKUP is structured around two intervention levels: the EAC Regional Window and the Partner States National Window with country specific projects. UNIDO is the implementation partner for the Kenya-Partner States Window.

The main purpose of this project is to contribute to the economic development of Kenya by increasing the value of both extra and intra-regional agricultural exports in selected horticulture sub sectors; (snow peas and peas, mangoes, passion fruit, chilies, herbs and spices, nuts). Recent studies have analysed the reasons for low productivity and competitiveness in these value chains such as the need for specialized extension services and a diffuse lack of knowledge on appropriate good agricultural practices. These value chains for exports are also lacking compliance with market requirements and standards. National quality infrastructure is at advanced development stage including for conformity assessment services; however, some conformity assessment services are not yet fully recognized by the targeted international markets.

The main scope of this activity is to work with KEPHIS phytosanitary inspection experts to improve the inspection system. It will support the delivery of Output 1.1 (policy, technical regulation, standards

framework in priority sectors addressed, capacity building of inspectors) in terms of the development of plant health inspection guideline and procedures for a robust risk-based plant health inspection system in collaboration with KEPHIS and HCD.

The goal of this activity is to prepare a generic guide that will be used by the plant health inspectors when inspecting plant products for export. It is expected that the guide will be also used as a baseline in the preparation of more specific commodity-based guides that will have more specific details on plant products.

#### Scope

This document provides guidance for the process of inspection and phytosanitary certification of plant products as carried out by inspectors of the Kenya Plant Health Inspectorate Service (KEPHIS). The purpose is to ensure valid and credible phytosanitary certification for export of consignments of plant products in meeting the phytosanitary requirements of importing countries and thereby fulfilling the international obligations as described by the International Protection Convention (1997) and WTO-SPS Agreement.

#### Commodities included and excluded in the Guide for Inspection

This guide describes inspection procedures for Plants & Plant Products including fruits, vegetables, herbs, cut flowers, branches with leaves and leaves.

The Guide excludes plants for planting as well as dry goods such as spices, coffee, tea, tobacco and other similar products.

The Guide excludes inspections for Maximum Residue Limit compliance.

#### 03. GUIDING ISPMS

This inspection guide has supportive International Standards for Phytosanitary Measures (ISPMs) which were adopted by the Commission on Phytosanitary Measures (CPM), a governing body of the International Plant Protection Convention (IPPC). Out of the 45, the ones outlined below are essential in guiding inspections at the exit/exit point to ascertain phytosanitary compliance that enables access to the importing market and ensure sustainability in trade.

#### A. ISPM 7 Phytosanitary certification system

This standard contains requirements and describes components of a phytosanitary certification system to be established by national plant protection organizations (NPPOs). The standard outlines the requirements necessary to align this inspection guideline as an operational tool for compliance, some of which are.

#### **Operational responsibilities**

- Document and maintain the information regarding the phytosanitary import requirements where needed for phytosanitary certification and provide appropriate work instructions to personnel
- Perform inspection, sampling and testing of plants, plant products and other regulated articles for purposes related to phytosanitary certification.
- Detect and identify pests.
- Identify plants, plant products and other regulated articles.
- Complete and issue phytosanitary certificates.
- Verify that appropriate phytosanitary procedures have been established and correctly applied.
- Conduct training for personnel.

#### Materials and facilities

The NPPO should ensure that adequate equipment, materials and facilities are available to carry out sampling, inspection, testing, treatment, consignment verification and other phytosanitary certification procedures.

#### B. ISPM No. 12 Guidelines for phytosanitary certificates

This standard describes principles and guidelines for the preparation and issue of phytosanitary certificates and phytosanitary certificates for re-export.

In addition to other provisions in the Phytosanitary certificate, the information below may be noted (take particular attention to (v):

# Specific Considerations for the Preparation and Issuance of Phytosanitary Certificates

- i. Phytosanitary certificates shall only be issued by public officers who are technically qualified and duly authorized by the NPPO.
- ii. Phytosanitary certificates should only be issued if it is confirmed that the phytosanitary import
- iii. Requirements are met.
- iv. Phytosanitary certificates should contain the necessary information to clearly identify the consignment to which each relates.
- v. Phytosanitary certificates should only contain information related to phytosanitary matters. They should not include statements related to nonphytosanitary requirements such as animal or human health matters, pesticide residues, radioactivity, commercial information (e.g. letters of credit), or quality.
- vi. To facilitate cross-referencing between phytosanitary certificates and documents not related to phytosanitary certification (e.g. letters of credit, bills of lading, CITES certificates), notes may accompany phytosanitary certificates that associate them with the identification code, symbol or numbers of the relevant documents that require cross-referencing. Such notes should be used only when necessary and should not be considered part of phytosanitary certificates.

#### C. ISPM 19 Guidelines on lists of regulated pests

The list of regulated pests is established by an importing contracting party to specify all currently regulated pests for which phytosanitary measures may be taken by the exporting country. This is a requirement by the IPPC that the contracting parties establish, update and make available list of regulated pests.

There can be an existing list of pests per commodity traded forming part of the major list. Specific lists are provided on request to the national plant protection organizations (NPPOs) of exporting contracting parties as the means to specify the regulated pests for the certification of particular commodities. Quarantine pests, including those subject to provisional or emergency measures, and regulated non-quarantine pests should be listed.

#### D. ISPM 20 Guidelines for a phytosanitary import regulatory system

The objective of a phytosanitary import regulatory system is to prevent the introduction of quarantine pests or limit the entry of regulated non-quarantine pests (RNQPs) with imported commodities and other regulated articles. There is shared risk of having introduction of these pests in the importing country whose effect will be an increase in infestation of exported plants and plant products hence curtailing market access and sustainability. Some of the requirements to this standard include.

#### **Consignments in transit**

In as much as consignments in transit are not imported the phytosanitary import regulatory system may be extended to cover consignments in transit and to establish technically justified phytosanitary measures to prevent the introduction and/or spread of pests (Article VII.4 of the IPPC, ISPM 25 (Consignments in transit)). Measures may be required to track consignments, to verify their integrity or to confirm that they leave the country of transit. Points of entry also form establishments within the country, conditions for transportation and time spans permitted within such territories.

#### Inspection

Inspections may be done at the point of entry, at points of transshipment, at the point of destination or at other places where imported consignments can be identified, such as major markets, provided that their integrity is maintained and that appropriate phytosanitary procedures can be carried out. By bilateral agreement or arrangement, they may also be done in the country of origin as a part of a pre-clearance programme in cooperation with the NPPO of the exporting country. Phytosanitary inspections, which should be technically justified, may be applied: - to all consignments as a condition of entry - as a part of an import monitoring programme where the level of monitoring (i.e. the number of consignments inspected) is established on the basis of predicted risk. If this determined risk is controlled or minimized, consignments to be exported too shall have minimal phytosanitary risks with an assumption that there is shared host range between the imported and exported plant products.

#### **Resources of the NPPO**

Contracting parties should provide to their NPPO appropriate resources to carry out its functions (Article IV.1 of the IPPC).

#### Staff, including training

The NPPO should: - employ or authorize personnel who have appropriate qualifications and skills - ensure that adequate and sustained training is provided to all personnel to ensure competency in the areas for which they have responsibility.

#### Information

The NPPO should ensure that adequate information is available to personnel, in particular: -guidance documents, procedures and work instructions as appropriate covering relevant aspects of the operation of the phytosanitary import regulatory system

- The phytosanitary import regulations of its country
- Information on its regulated pests including biology, host range, pathways, global distribution, detection and identification methods, treatment methods.

#### **Equipment and facilities**

The NPPO should ensure that adequate equipment and facilities are available for:

- Inspection, sampling, testing, surveillance and consignment verification procedures Guidelines for a phytosanitary import regulatory system
- Communication and access to information (by electronic means as far as possible).

#### E. ISPM 23 Guidelines for inspection

The responsibilities of a national plant protection organization include "the inspection of consignments of plants and plant products moving in international traffic and, where appropriate, the inspection of other regulated articles, particularly with the object of preventing the introduction and/or spread of pests" (Article IV.2(c) of the IPPC).

An entire consignment may not be feasibly inspected and therefore sampling is done to ascertain phytosanitary compliance.

There are assumptions that are considered if inspection is used as a means to detect the presence of pests in, or to determine or verify the pest incidence in, a consignment, these are that the pests of concern, or the signs or symptoms they cause, are visually detectable. In addition to that, inspection is operationally practical and finally, some probability of pests being undetected is recognized.

Specific requirements to this standard are:

- i. Examination of documents associated with a consignment.
- ii. Verification of consignment identity and integrity.
- iii. Visual examination for pests and other phytosanitary requirements (such as freedom from soil).

Inspection outcome is key, tis can either be a rejection or approval dependent on the tolerance levels of the pest in question, guided by the principles of ISPM 31.

#### F. ISPM 31 Methodologies for sampling of consignments

This standard provides guidance to national plant protection organizations (NPPOs) in selecting appropriate sampling methodologies for inspection or testing of consignments to verify compliance with phytosanitary requirements.

It is usually not feasible to inspect entire consignments, so inspection is performed mainly on samples obtained from a consignment.

Some of the requirements in the standard are as below.

#### i. Lot Identification

A lot to be sampled should be a number of units of a single commodity identifiable by its homogeneity in factors such as: origin, grower, packing facility, species, variety, or degree of maturity, exporter, and area of production, regulated pests and their characteristics, treatment at origin.

#### ii. Sample unit

This involves the identification of the appropriate unit for sampling (for example, a fruit, stem, bunch, unit of weight, bag or carton). The determination of the sample unit is affected by issues related to homogeneity in the distribution of pests through the commodity, whether the pests are sedentary or mobile, how the consignment is packaged, intended use, and operational considerations.

#### iii. Acceptance number

The acceptance number is the number of infested units or the number of individual pests that are permissible in a sample of a given size before phytosanitary action is taken.

#### iv. Level of detection

The level of detection is the minimum percentage or proportion of infestation that the sampling methodology will detect at the specified efficacy of detection and level of confidence and which the NPPO intends to detect in a consignment.

#### v. Confidence level

The confidence level indicates the probability that a consignment with a degree of infestation exceeding the level of detection will be detected.

#### vi. Sample size

The sample size is the number of units selected from the lot or consignment that will be inspected or tested.

#### vii. Selecting a Sampling Method

In most cases the selection of an appropriate sampling method is necessarily dependent on information available about pest incidence and distribution in the consignment or lot as well as the operational parameters associated with the inspection situation in question.

#### 04. **REFERENCES**

**KEPHIS** Strategic Plan 2017/2018 – 2021/2022

UNIDO EU-EAC MARKUP (Market access Upgrade programme) Project Doc

Horticultural Crops Directorate. Horticultural Export Statistics, 2020-2021

#### Australia Government. Department of Agriculture, Water and the Environment

Plant exports guide—horticulture inspection techniques. <u>https://www.awe.gov.au/sites/default/files/sitecollectiondocuments/biosecurity/export/plants-plant-products/plant-exports-manual/reference-plant-exports-guide-horticulture-inspection-techniques.pdf</u>

Government of India. Ministry of Agriculture. (Department of Agriculture & Cooperation) **Directorate of Plant Protection, Quarantine & Storage** N.H.IV., Faridabad-121001. Standard Operating Procedures for Export Inspection and Phytosanitary Certification of Plants/ Plant Products & other Regulated Articles <u>https://plantquarantineindia.nic.in/pqispub/pdffiles/SOP-Export%20</u> Inspection.pdf

- ISPM 5. 1995. Glossary of phytosanitary terms
- ISPM 7 Phytosanitary certification system:
- ISPM No. 12 Guidelines for phytosanitary certificates
- ISPM 19 Guidelines on lists of regulated pests.
- ISPM 20 Guidelines for a phytosanitary import regulatory system
- ISPM 23 Guidelines for inspection.
- ISPM 31 Methodologies for sampling of consignments.

#### 05. GLOSSARY

This glossary gives a harmonized reference point with a list of terms and their definitions having meaning that is globally agreeable by existing phytosanitary systems. It has been developed to provide a harmonized internationally agreed vocabulary associated with the implementation of the International Plant Protection Convention (IPPC) and International Standards for Phytosanitary Measures (ISPMs) within the context of the IPPC and its ISPMs. The purpose of this reference standard is to increase clarity and consistency in the use and understanding of terms.

This Glossary contains all terms and definitions approved until the Fifteenth Session of the Commission on Phytosanitary Measures (CPM, 2021) as indicated in the ISPM 5.

Additional declaration	A statement that is required by an importing country to be entered on a phytosanitary certificate and which provides specific additional information on a consignment in relation to regulated pests or regulated articles [FAO, 1990; revised ICPM, 2005; CPM, 2016]
Area	An officially defined country, part of a country or all or parts of several countries [FAO, 1990; revised ISPM 2, 1995; CEPM, 1999; based on the World Trade Organization Agreement on the Application of Sanitary and Phytosanitary Measures (WTO, 1994)]
Clearance (of a consignment)	Verification of compliance with phytosanitary regulations [FAO, 1995]
Compliance procedure (for a consignment)	Official procedure used to verify that a consignment complies with phytosanitary import requirements or phytosanitary measures related to transit [CEPM, 1999; revised CPM, 2009]
Consignment	A quantity of plants, plant products or other articles being moved from one country to another and covered, when required, by a single phytosanitary certificate (a consignment may be composed of one or more commodities or lots) [FAO, 1990; revised ICPM, 2001]
Consignment In Transit	A consignment which passes through a country without being imported, and that may be subject to phytosanitary measures [FAO, 1990; revised CEPM, 1996; CEPM 1999; ICPM, 2002; ISPM 25, 2006; formerly "country of transit"]
Contaminating pest	A pest that is carried by a commodity, packaging, conveyance or container, or present in a storage place and that, in the case of plants and plant products, does not infest them [CEPM, 1996; revised CEPM, 1999; CPM, 2018]

Contamination	Presence of a contaminating pest or unintended presence of a regulated article in or on a commodity, packaging, conveyance, container or storage place [CEPM, 1997; revised ICPM, 1999; CPM, 2018]
Control (of a pest)	Suppression, containment, or eradication of a pest population [FAO, 1995]
Corrective action plan (in an area)	Documented plan of phytosanitary actions to be implemented in an area officially delimited for phytosanitary purposes if a pest is detected or a tolerance level is exceeded or in the case of faulty implementation of officially established procedures [CPM, 2009]
Country of origin (of a consignment of plant products)	Country where the plants from which the plant products are derived were grown [FAO, 1990; revised CEPM, 1996; CEPM, 1999]
Detention	Keeping a consignment in official custody or confinement, as a phytosanitary measure [FAO, 1990; revised FAO, 1995; CEPM, 1999; ICPM, 2005]
Efficacy (of a treatment)	A defined, measurable, and reproducible effect by a prescribed treatment [ISPM 18, 2003]
Entry (of a consignment)	Movement through a point of entry into an area [FAO, 1995]
Find free	To inspect a consignment, field or place of production and consider it to be free from a specific pest [FAO, 1990]
Free From (Of A Consignment, Field or Place of Production)	Without pests (or a specific pest) in numbers or quantities that can be detected by the application of phytosanitary procedures [FAO, 1990; revised FAO, 1995; CEPM, 1999]
Fresh	Living; not dried, deep-frozen, or otherwise conserved [FAO, 1990]
Harmonization	The establishment, recognition, and application by different countries of phytosanitary measures based on common standards [FAO, 1995; revised CEPM, 1999; based on the World Trade Organization Agreement on the Application of Sanitary and Phytosanitary Measures (WTO, 1994)]
Infestation (of a commodity)	Presence in a commodity of a living pest of the plant or plant product concerned. Infestation includes infection [CEPM, 1997; revised CEPM, 1999]

Inspection	Official visual examination of plants, plant products or other regulated articles to determine if pests are present or to determine compliance with phytosanitary regulations [FAO, 1990; revised FAO, 1995; formerly "inspect"]
Inspector	Person authorized by a national plant protection organization to discharge its functions [FAO, 1990]
Integrity (of a consignment)	Composition of a consignment as described by its phytosanitary certificate or other officially acceptable document, maintained without loss, addition or substitution [CPM, 2007]
Interception (of a consignment)	The refusal or controlled entry of an imported consignment due to failure to comply with phytosanitary regulations [FAO, 1990; revised FAO, 1995]
Interception (of a pest)	The detection of a pest during inspection or testing of an imported consignment [FAO, 1990; revised CEPM, 1996]
International standard for phytosanitary measure	An international standard adopted by the Conference of FAO, the Interim Commission on Phytosanitary Measures or the Commission on Phytosanitary Measures, established under the IPPC [CEPM, 1996; revised CEPM, 1999]
Introduction (of a pest)	The entry of a pest resulting in its establishment [FAO, 1990; revised ISPM 2, 1995; IPPC, 1997
Lot	A number of units of a single commodity, identifiable by its homogeneity of composition, origin etc., forming part of a consignment [FAO, 1990]
National plant protection organization	Official service established by a government to discharge the functions specified by the IPPC [FAO, 1990; formerly "plant protection organization (national)"]
Non-quarantine pest	Pest that is not a quarantine pest for an area [FAO, 1995]
Official control	The active enforcement of mandatory phytosanitary regulations and the application of mandatory phytosanitary procedures with the objective of eradication or containment of quarantine pests or for the management of regulated non-quarantine pests [ICPM, 2001]
Packaging	Material used in supporting, protecting or carrying a commodity [ISPM 20, 2004]

Pathway	Any means that allows the entry or spread of a pest [FAO, 1990; revised FAO, 199
Pest	Any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products. Note: In the IPPC, "plant pest" is sometimes used for the term "pest" [FAO, 1990; revised ISPM 2, 1995; IPPC, 1997; CPM, 2012]
Pest free place of production	Place of production in which a specific pest is absent as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained for a defined period [ISPM 10, 1999; revised CPM, 2015]
Pest risk assessment (for quarantine pests)	Evaluation of the probability of the introduction and spread of a pest and the magnitude of the associated potential economic consequences [ISPM 2, 1995; revised ISPM 11, 2001; ISPM 2, 2007]
Phytosanitary action	An official operation, such as inspection, testing, surveillance or treatment, undertaken to implement phytosanitary measures [ICPM, 2001; revised ICPM, 2005]
Phytosanitary certificate	An official paper document or its official electronic equivalent, consistent with the model certificates of the IPPC, attesting that a consignment meets phytosanitary import requirements [FAO, 1990; revised CPM, 2012]
Phytosanitary certification	Use of phytosanitary procedures leading to the issue of a phytosanitary certificate [FAO, 1990]
Phytosanitary import requirements	Specific phytosanitary measures established by an importing country concerning consignments moving into that country [ICPM, 2005]
Point of entry	Airport, seaport, land border point or any other location officially designated for the importation of consignments, or the entrance of persons [FAO, 1995; revised CPM, 2015]
Quarantine pest	A pest of potential economic importance to the area endangered thereby and not yet present there, or present but not widely distributed and being officially controlled [FAO, 1990; revised FAO, 1995; IPPC 1997
Regulated article	Any plant, plant product, storage place, packaging, conveyance, container, soil and any other organism, object or material capable of harbouring or spreading pests, deemed to require phytosanitary measures, particularly where international transportation is involved [FAO, 1990; revised FAO, 1995; IPPC, 1997]

Standard	Document established by consensus and approved by a recognized body that provides for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context [FAO, 1995; ISO/IEC Guide 2:1991 definition	
Test	Official examination of plants, plant products or other regulated articles, other than visual, to determine if pests are present, identify pests or determine compliance with specific phytosanitary requirements [FAO, 1990; revised CPM, 2018]	
Tolerance level (of a pest)	Incidence of a pest specified as a threshold for action to control that pest or to prevent its spread or introduction [CPM, 2009]	
Visual examination	Examination using the unaided eye, lens, stereoscope or other optical microscope [ISPM 23, 2005; revised CPM, 2018]	

#### 06. TOOLS FOR INSPECTION

Before undertaking an inspection exercise, an Inspector should have the necessary equipment. The list of basic tools needed is as follows:

- Magnifying lens- handheld
- Source of light (a torch or any other)
- Tweezers (forceps)
- Paintbrushes
- Scissors
- Knives
- Scraper
- Probe
- White paper sheets
- Vials and tubes
- Liquid preservative 80 per cent ethanol
- Sample collection bags (Snap-lock plastic bags are ideal)
- Labels
- Pencils
- Small storage box to store vials, tubes
- Gloves
- High visibility jacket
- Notebook

#### 07. INSPECTION AND CERTIFICATION PROCEDURES

#### i. Request, Receipt and Acknowledgement

These procedures for inspection and inspection for re-export will follow this sequence:

- 1. The client makes an application for inspection on the Electronic Certification System
- 2. If the client had opted for alert on the system, they get an email alert indicating submission of the request. All clients can view the status of their request through their ECS account
- 3. When inspection is complete, the client can view the status and receives a phytosanitary certificate as well

#### ii. Inspection

The inspection of commodities will be carried out by an inspector, or a person officially designated to carry out the inspection, at packing house facility or at the cold storage premises of exporter or in designated zones just prior to shipment depending upon specific phytosanitary requirements of the importing country. Inspection will be guided by the various ISPM documents. In particular, the Guidelines for inspection in ISPM 23 will be the reference document.

#### a. Document check

Documents will be checked for completeness, consistency, accuracy and for any signs of invalidity or fraud. The ISPM 23, page 7 offers guidelines on the different kinds of documents that may need to be inspected.

#### b. Consignment check and recording

Consignments are verified for identity and integrity using several methods.

Visual checks- Visual examination will be used for pest detection and for verifying compliance with phytosanitary regulations. This includes the use of unaided eye, lens, stereoscope or other optical microscope. Appendix I describes general inspection tips that can be applied for all commodities and Appendix 2 has a guiding list of signs, symptoms, insects, diseases and abnormalities that could be sighted in a consignment.

#### Digital recording of consignment

Consignments may be digitally recorded either at random or in cases of non-compliance that may not be obvious initially but would need sampling and laboratory follow up for diagnosis.

#### c. Sampling

#### Definition of sample

The definition of a sample will be dependent on the commodity. The size of a sample will be determined based on a specified regulated pest associated with a specific commodity.

The guiding ISPMs will be as follows:

Reference Doc		Category of information	Quick reference page	
1.	The Methodologies for sampling of consignments are described in ISPM 31.	Sample size based on lot sizes	14-18, pg 15 for fruits and vegetables	
2.	Guidelines for inspection in ISPM 23	Visual examination of pests other methods	8	
3.	Guidelines for a phytosanitary import regulatory system ISPM 20	Reasons for testing after sampling	15	

#### Securing of sample

Samples will be secured by appropriate labelling and packing. The detailed information of labelling will include Lot/Batch Number, Name of the Commodity (species/variety), Plant parts sampled, Sample size, Place of inspection, Date of inspection and Name/Signature of Inspector (Sample Form, Appendix III).

#### Delivery of sample.

Samples will be delivered directly to the laboratory for testing. The designated laboratory is the KEPHIS Plant Diagnostic Lab

#### Internal receipt of sample

On receipt, the samples will be entered in a sample register and stored in sample storage room until issued for testing. The sample storage area will be well aired. The samples

should be held under refrigerator/cold storage room to prevent spoilage by microbial contamination.

The samples will be retained for 72 hours after inspection before disposal.

#### d. Disposal of inspected materials

Inspected materials will be disposed of from the inspection desk into disposal bags designated by KEPHIS

#### iii. Reporting

If a lot is compliant, the invoice will be signed and stamped. The consignment is then ready for issue of a phytosanitary certificate

#### iv. Certification

The following steps will apply for a compliant lot: The Inspector will do the following:

- 1. Grant online approval in the ESC system
- 2. Issue Phytosanitary certificate including the Additional declaration as needed
- 3. Inform the Authorized Inspector to sign the certificate and stamp the certificate.
- 4. Record the certificate and hand it over to the Exporter/ Clearing Agent.
- 5. In the case of Fruits and Vegetables destined to the EU, a Certificate of Conformity will also be issued
- 6. Check that all the details are correct on the Certificate of Conformity
- 7. Sign and stamp the certificate and give it to the Exporter/ Clearing Agent.

#### v. Feedback communication

#### a. Certification

The feedback for certification will be entered into the ECS system. The exporter can see this result and receive the phytosanitary certificate as proof of approval.

#### b. Decline of certification

The following steps shall apply for a non-compliant lot:

A lot will be considered non-compliant if it does not meet the requirements:

- Free from pests/pest damage
- Free from diseases/disease damage
- Has no physiological disorders
- Is properly graded (size, color, shape, etc.)
- Has no excessive moisture
- Is whole (has no mechanical damage)
- Is well packaged (clearly labeled, clean and well ventilated)

The levels of infestation or infection will depend mainly on the commodity and for fruits and vegetables should be between 5 and 10% (the infestation level for quarantine pests is zero).

Information of global status of regulated and non-regulated and especially on quarantine status is available on the EPPO Global Database (<u>https://gd.eppo.int/</u>)

Other requirements include:

- Product that is banned under the export regulations of the country, e.g partial bans
- An import that is prohibited by the phytosanitary regulations of importing country.
- A product that is covered under the provisions of CITES

If the produce does not meet the requirements, the following applies:

- 1. The lot is rejected in the ECS system. The exporter can see this result and the reason for the rejection in the ECS end.
- 2. A handwritten rejection notice will be given to the exporter or to the clearing agent who takes it to the exporter (Appendix IV shows the format of a valid rejection notice). This notice is also scanned and sent to the exporter via email. The Inspector will keep a copy of this rejection notice.
- 3. The lot is marked rejected and clearly separated from the rest
- 4. When a rejection occurs due to a pest, and the pest is later identified, a laboratory report will also be sent to the exporter.

#### vi. Disposal of non-complaint lots

Non-complaint lots or consignments are not authorized for export.

The following applies to non-compliant lots:

- 1. If a product is non-compliant on basis of grading, it can be re-graded and re-inspected
- 2. If the lot is rejected due to the presence of a quarantine pest, the exporter/agent is instructed to take it back to the farm. Shredding of rejected material is also accepted.

#### vii. Appeals procedure

Where inspection or a service has been rendered and the outcome was not satisfactory to the client, he may make an appeal for re-inspection. The procedure for this is as follows:

- 1. The client notifies the inspector or the supervisor on the intention to have a second opinion
- 2. The supervisor evaluates the request against the results of the first inspection
- 3. The supervisor appoints two inspectors to make a re-inspection in the absence of the first inspector
- 4. The inspectors make a recommendation of the findings to the supervisor who then communicates to the exporter the final decision
- 5. The findings or the second inspection are final, and the client may not make further appeal

#### viii. Return to compliance

#### After rejection at exit point

For a rejection due to the presence of a quarantine pest, the exporter is not allowed to export until the non- conformance is corrected.

To correct the non-conformance, the following procedure will apply:

- 1. The company will commit in writing that no exports will be offered for export from the farm from which the lot came from
- 2. The Inspectors will inform the company in writing that an audit will be carried out on the farm from which the non-complaint produce originated from.
- 3. The Inspectors will consult with the company and mutually agree on the date of the visit(s), the scope of the audit as well as the expected cost.
- 4. The schedule for the visit(s) will be prepared mutually between the Inspectors and the Company using realistic timelines based on objective information related to the biology of the pest/disease or other criteria valid in the non-conformance.
- 5. The visit(s) will be done in conjunction with the company and according to the agreed schedule
- 6. The report for the visit will be prepared taking account of the agreed schedule
- 7. The final verdict will be communicated in writing with objective information regarding the findings

#### **08. APPENDICES**

# Appendix 1: General inspection techniques for all commodities

Item	Suggested method of inspection
Packaging	The outside and inside of the packaging is inspected for pests and contaminants. Empty the package contents onto the inspection bench or into a tray and inspect the packaging for live insects and debris checking under the flaps of a carton.
Surface inspection	Insects may be present on the surface of commodity or in the lids of boxes and punnets. Inspect these areas after the package, and before handling the product.
Commodity inspection	Inspect the entire external surface of the product, turning it over, one unit at a time. Look for signs of pest and disease symptoms, and contaminants. Lift the product and turn it to examine all surfaces.
Sheltered sites	Making sure you have adequate light, focus on sheltered areas where insects can be hidden for examples under sepals or within long necked flowers. Check sheltered sites such as the calyx end of fruits, under sepals and any indented areas in the product using forceps
Shaking and tapping technique	After visually inspecting, tapping or shaking is then done in order to minimise the risk of spreading fungal spores and pests. The shaking and tapping is performed over a sheet of white paper, with bunches or leafy commodities tapped or shaken to dislodge insect pests and other debris. Use sufficient force to dislodge risk material but avoid unreasonable damage during the inspection.
Cutting	There are two cutting methods used to expose internal pests: slicing or a conical cut. <b>Conical cut:</b> A conical cut is used to avoid damaging the pest if there is one inside the area of physical damage. In this case, an incision is made around the symptomatic area in the shape of a cone and the piece removed for inspection. <b>Slicing:</b> Slicing is a cutting method used where small slices are made to progressively expose the site.
Inspecting a cut	Examine the exposed interior of the fruit and the excised piece for internal pests or disease symptoms.
Using a magnifying lens	A magnifying lens of at least 10x magnification is used for detailed inspections of small pests and commodities with small sites that might harbour pests and disease
Inspecting debris	Check the debris still on the inspection bench or inside the packaging for pests

Paper sheets to collect debris	Use white paper to collect insects and debris during inspections. A white background allows insects to be seen more easily under low magnification. You can collect insects and debris onto the centre of the paper by folding it four times, then opening it out again.
Determining if an insect is alive	Cold temperatures reduce insect activity. If fruit has been kept chilled and is still cold, any pests detected can be set aside and allowed to warm up to determine if the pest is alive. One way of doing this is to place the insect on a white piece of paper with a circle drawn around it. A light can be placed over the top of the insect to warm it up. If the insect is alive and moves within the circle it can be easily seen. To ensure the insect does not escape, place a clear container over the top to keep it secure. A hand lens may also be used to ensure insects are alive.

Source (with edits):

https://www.awe.gov.au/sites/default/files/sitecollectiondocuments/biosecurity/export/ plants-plant-products/plant-exports-manual/reference-plant-exports-guide-horticultureinspection-techniques.pdf

#### Appendix II: Some common pest and disease symptoms and contaminants

Sign, symptom, or contaminant	Possible cause
Chewed product	Chewing insects or other organism
Galls	Nematodes, bacteria, viruses
Holes	Insects
Honeydew – sticky, sugary liquid	Sap-feeding insects
Leaf spotting – yellowish, dark brown, black and	Fungi, with yellow halo – bacteria
Powdery appearance	Fungus or mildew
Rolled leaves	Viruses, insects
Rot	Fungi, bacteria, insects
Soft spots	Fungi, bacteria, insects
Soil	Contaminant
Sooty mould – fine black substance	Secondary to honeydew
Speckling on the leaf or blemishes on product	White flies, insects
Stings	Insects
Uneven yellowing of leaf or spots on product	Viruses
Water-soaked areas on leaf	Bacteria or fungus
Webbing	Mites
Weed seeds	Contaminant

Source (with edits):

https://www.awe.gov.au/sites/default/files/sitecollectiondocuments/biosecurity/export/ plants-plant-products/plant-exports-manual/reference-plant-exports-guide-horticultureinspection-techniques.pdf

#### **Appendix III: Sample Form**



#### KENYA PLANT HEALTH INSPECTORATE SERVICE

(KEPHIS)

#### P.O BOX 49592-00100, TEL: +254709891000 Email: director@kephis.org, NAIROBI-KENYA

Sample Form

Item	Description
Ref No	
Date of inspection/sampling	
Place of Inspection	
Name of the commodity Species variety)	
Commodity	
Plant parts sampled	
Batch No/Lot number marks	
Quantity (MTs/Nos)	
Sample size kg	
No of samples drawn	
Sampled by (name) and sign	
Sample issued to (name) and sign	

#### **Appendix IV: Produce Rejection Notice**



RN/NO.....

#### KENYA PLANT HEALTH INSPECTORATE SERVICE

(KEPHIS)

REPUBLIC OF KENYAKENYA PLANT HEALTH INSPECTORATE SERVICE<br/>(KEPHIS)MINISTRY OF AGRICULTUREP.O BOX 49592-00100,<br/>TEL: +254 709891000P. O. Box 30028-00100 Kenya<br/>E-mail: info@kilimo.go.keTelephone: +254-20-2718870<br/>Hotline: 0800724891

#### AGRICULTURAL PRODUCE REJECTION NOTICE

This is to inform that the following consignment of plants/plant material presented by you has been inspected and the same is rejected for export and issue of Phytosanitary Certificate (PSC) due to the reasons given below

1. Exporter: ......Date of inspection: .....

Date of Re-inspection:.....

2. Producer: ..... Date of Rejection.....

INVOICE NO: .....

Through the powers conferred in the Agricultural produce (Export Act Cap 319) Rev 1979,1962, the produce specified below has been found not to conform to:-

_		Rule No.
	The Agricultural produce (Export) Inspection Rules 2008	
	• The Agricultural produce (Grading of fruits and vegetables for Export Rules	

#### • Delete if not appropriate

Product	No. of cartons	Gross weight (kgs)	Reasons for rejection

Signed: \_\_\_\_\_

Inspector

Note: No financial Liability with respect to this notice shall be attached to KEPHIS

Subsector	Value Chain	County Selected
Fruits	Mango	Makueni Machakos Embu
	Passion Fruit	Uasin Gishu Bungoma Trans Nzoia
Vegetables	French Beans	Trans Nzoia Bungoma Taita Taveta Machakos Kajiado
	Snow Peas	Trans Nzoia Nakuru Taita Taveta
Herbs & Spices	Export Oriented herbs e.g., Basils, Coriander, Dill, Sage, Mint, etc	Kajiado Nakuru
	Chillies- capsicum	Busia Kajiado
Nuts	Macadamia	Embu Bungoma
	Groundnuts	Busia Siaya Homabay

# Annex 1: List of products and selected counties in the MARK UP Project





























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