INTERNATIONAL STANDARDS FOR PHYTOSANITARY MEASURES

CLASSIFICATION OF COMMODITIES INTO PHYTOSANITARY RISK CATEGORIES

(200-)

CONTENTS

INTRODUCTION

SCOPE

This standard provides guidance on categorizing commodities according to their phytosanitary risk. The categorization is based on the method and level of processing to which a commodity has been subjected and the commodity's intended use. The standard also provides guidance for determining phytosanitary risk management measures for each category, as appropriate.

REFERENCES

Glossary of phytosanitary terms, 2007. ISPM No. 5, FAO, Rome.
Guidelines for a phytosanitary import regulatory system, 2004. ISPM No. 20, FAO, Rome.
Guidelines for inspection, 2005. ISPM No. 23, FAO, Rome.
Guidelines for phytosanitary certificates, 2001. ISPM No. 12, FAO, Rome.
Guidelines for regulated wood packaging material in international trade, 2002. ISPM No. 15, FAO, Rome.
International Plant Protection Convention, 1997. FAO, Rome.
Pest risk analysis for quarantine pests including analysis of environmental risks and living modified organisms, 2004. ISPM No. 11, FAO, Rome.

DEFINITIONS

Definitions of phytosanitary terms used in the present standard can be found in ISPM No. 5 (*Glossary of phytosanitary terms*).

OUTLINE OF REQUIREMENTS

The concept of phytosanitary risk categorization of commodities combines the method and level of processing to which a commodity has been subjected with the commodity's intended use and consequent potential for association with regulated pests.

This combination allows phytosanitary risk categories to be assigned. The objective of such categories is to provide importing contracting parties with guidelines to better identify the need for a pathway-initiated pest risk analysis (PRA) in order to facilitate the decision-making process.

This standard outlines four different phytosanitary risk categories (two for processed commodities, two for unprocessed commodities) and provides some examples of the methods of processing and the resultant commodities associated with each of the first two categories.

BACKGROUND

As a result of the method of processing to which they have been subjected, some commodities in international trade may not have the potential to introduce regulated pests and so do not meet the definition of a regulated article. In this case phytosanitary measures are not required. Other commodities, after processing, may still present a phytosanitary risk and so may be subject to appropriate phytosanitary measures.

Some intended uses (e.g. planting) have a much higher probability of introducing regulated pests than others (e.g. processing) (ISPM No. 11: *Pest risk analysis for quarantine pests, including analysis of environmental risks and living modified organisms*, 2004, section 2.2.1.5).

The concept of phytosanitary risk categorization of commodities combines the method and level of processing to which a commodity has been subjected with its intended use and consequent potential for association with regulated pests.

The objective of the classification of commodities into phytosanitary risk categories is to provide importing contracting parties with guidelines to better identify the need for a pathway-initiated PRA in order to facilitate the decision-making process.

This standard is based on the concepts of intended use of a commodity and the nature of its processing that can be found in other ISPMs:

Intended use:

- ISPM No. 11 (*Pest risk analysis for quarantine pests including analysis of environmental risks and living modified organisms*, 2004), sections 2.2.1.5 and 2.2.3. When analysing the probabilities of transfer of pests to a suitable host and of their spread after establishment, one of the factors to be considered is the intended use of the commodity.
- ISPM No. 12 (*Guidelines for phytosanitary certificates*), section 2.1. Different phytosanitary requirements may apply to the different intended end uses as indicated on the phytosanitary certificate.

Method and level of processing:

- ISPM No. 12 (*Guidelines for phytosanitary certificates*), section 1.1, establishes that importing countries should require phytosanitary certificates only for regulated articles. Phytosanitary certificates may also be used for certain plant products that have been processed where such products (e.g. wood, cotton), by their nature or that of their processing, have a potential for introducing regulated pests. Importing countries should not require phytosanitary certificates for plant products that have been processed in such a way that they have no potential for introducing regulated pests, or for other articles that do not require phytosanitary measures.
- ISPM No. 15 (*Guidelines for regulating wood packaging material in international trade*), section 2, indicates that when wood packaging is made wholly of wood-based products such as plywood, particle board, oriented strand board or veneer that have been created using glue, heat and pressure, or a combination thereof, it should be considered sufficiently processed to have eliminated the risk associated with the raw wood. It is unlikely to be infested by raw wood pests during its use and therefore should not be regulated for these pests.
- ISPM No. 23 (*Guidelines for inspection*), section 2.3.2. Inspection can be used to verify the compliance with some phytosanitary requirements. Examples include degree of processing.

Intended use together with method and level of processing:

- ISPM No. 20 (*Guidelines for a phytosanitary import regulatory system*), section 5.1.4, indicates that PRA may be done on a specific pest or on all the pests associated with a particular pathway (e.g. a commodity). A commodity may be classified by its level of processing and/or its intended use.
- ISPM No. 23 (*Guidelines for inspection*), section 1.5. One of the factors, among others, to decide the use of inspection as a phytosanitary measure is the commodity type and intended use.

REQUIREMENTS

The application of the concept of phytosanitary risk categories follows, in particular, the principles and obligations of technical justification, risk analysis, risk management, minimal impact, harmonization and sovereignty.

When the entry requirements for a commodity need to be determined the importing country could classify it into a phytosanitary risk category, which could be used to identify whether further analysis is required. In order to categorize the commodity, the following should be considered:

- method and level of processing
- intended use of the commodity.

Commodities can be:

- processed: those in which raw material is transformed in differing ways and degrees
- non-processed: those in which raw material is not transformed.

1. Elements of Phytosanitary Risk Categorization of Commodities

To identify a commodity's risk category, the method and level of processing to which a commodity has been subjected should be considered before its intended use. This single parameter, by itself, could significantly change the nature of the commodity, rendering it unable to harbour or spread pests. A commodity processed in such a way does not meet the definition of a regulated article.

However, if, after processing, a commodity still meets the definition of a regulated article, the intended use should then be considered.

1.1 Method and level of processing

The primary objective of processing is to modify a commodity, but processing may also have an effect on any associated regulated pest, and hence affect the potential to harbour pests of the commodity.

It is necessary to know the type of processing undertaken in order to categorize the commodity. In some cases it is also necessary to know the level (or degree) of processing (e.g. temperature and cooking duration) in addition to the type of processing used.

Based on the method and level of processing commodities can be broadly divided into two types as follows:

- Type A: processed to the point where the commodity does not meet the definition of a regulated article
- Type B: processed to a point where the commodity remains capable of harbouring or spreading regulated pests.

Annex 1 provides examples of different processes in each of the two types above, and the resulting processed commodities obtained.

If an assessment of the method and level of processing concludes that a commodity does not have the capacity to harbour or spread regulated pests, no further analysis is necessary because the commodity does not meet the definition of a regulated article. However, if an assessment of the method and level of processing concludes that a commodity retains the capacity to harbour or spread regulated pests, the intended use should then be considered.

For non-processed commodities the intended use should always be considered.

1.2 Intended use

Intended use is defined as the declared purpose for which plants and plant products or other regulated articles are imported, produced or used (ISPM No. 5: *Glossary of phytosanitary terms*, 2007). The intended use of a commodity may be for:

- planting
- consumption without further transformation, including decorative and functional uses
- processing.

Some intended uses (e.g. planting) are associated with a much higher probability of introducing regulated pests than others (e.g. processing).

Its intended use can affect a commodity's potential to introduce or spread regulated pests, and hence the phytosanitary risks associated with the commodity. This could result in the application of different phytosanitary measures for a plant or plant product based on its intended use (e.g. soybean seed and soybean grain). Any phytosanitary measures applied should be consistent with the phytosanitary risk presented.

2. Phytosanitary Risk Categories and Measures

Taking into account the method and level of processing to which a commodity has been subjected, its intended use and its subsequent potential for harbouring or spreading regulated pests allows phytosanitary risk categories to be assigned.

Each phytosanitary risk category is described below, along with guidance on appropriate phytosanitary measures.

Contaminating pests, as defined in ISPM No. 5 (*Glossary of phytosanitary terms*), or storage pests that may become associated with the commodity after processing are not considered in the risk categorization process outlined in this standard. These pests could be detected during inspection.

Category 1. Commodities have been processed to the point where they do not meet the definition of a regulated article. Hence, no further analysis is necessary and phytosanitary measures are not applicable.

Annex 1 (Type A) provides examples of processes and the resultant commodities that meet the criteria for category 1.

Category 2. Commodities have been processed but may still harbour or spread regulated pests. The intended use may be consumption or processing. PRA may be necessary.

Although commodities in category 2 have been processed, the processing method may not eliminate regulated pests of concern. Consideration should therefore be given to the level of processing applied. If it is determined that the method and level of processing do not eliminate regulated pests, consideration should then be given to the intended use of the commodity before determining that phytosanitary measures must be put in place. A PRA may be needed to determine this, and the range of applicable phytosanitary measures outlined by the PRA may differ depending on the intended use of the commodity (consumption or processing).

Annex 1 (Type B) provides examples of processes and the resultant commodities that meet the criteria for category 2.

In cases where the method and level of processing is known and through evaluation it is shown that the processed commodity presents no phytosanitary risk and therefore does not meet the definition of a regulated article, the commodity should be reclassified into category 1.

Category 3. Commodities have not been processed and the intended use is consumption or processing. PRA is required, as appropriate.

Examples of commodities in this category include fresh fruits and vegetables.

Because commodities in category 3 are not processed and therefore have the potential to harbour regulated pests, establishment of phytosanitary measures is always going to require a PRA to be performed. Depending on the intended use of the commodity (consumption or processing), the range of phytosanitary measures resulting from the PRA may be different.

Category 4. Commodities have not been processed and the intended use is planting. PRA is required.

Examples of commodities in this category include propagative material (e.g. ornamental plants and seeds).

Because commodities in phytosanitary risk category 4 are not processed and their intended use is always for propagation or planting, their potential to introduce or spread regulated pests is higher than that for other intended uses. Therefore a PRA is always needed to establish phytosanitary measures. For this category, some specific phytosanitary measures already exist, such as post-entry quarantine.

The decision-making process outlined in this ISPM is pictured in a flow chart in Appendix 1.

ANNEX 1

EXAMPLES OF METHODS OF PROCESSING AND THE RESULTANT TYPES OF COMMODITY

TYPE A Processed to the point where the commodity does not meet the definition of a regulated article.

PROCESS	DESCRIPTION	EXAMPLE OF RESULTANT COMMODITY	OBSERVATIONS
Carbonization	Action to reduce an organic body to charcoal	Charcoal	
Chemical pressure impregnation	Treatment of wood with a chemical preservative through a process of pressure in accordance with an officially recognized technical specification and in accordance with ISPM No. 15	Impregnated wood	Applies only to wood
Extraction	Physical or chemical process to obtain refined products	Oils, alcohol, essences	
Fermentation	A process by which food goes through a chemical change caused by enzymes produced from bacteria, micro-organisms or yeasts	Wines, liquors, beer and other alcoholic beverages	May be combined with pasteurization
Freeze-drying	Action of freezing and dehydration by sublimation	Freeze-dried fruits, cut flowers, bouquets	
Freezing	Action of keeping fruits and vegetables at temperatures below freezing to preserve quality	Frozen fruits and vegetables	
Grinding	Action of breaking a body to turn it into powder	Powdered herbs and spices, flours	Usually applied to dried products
Lamination	Splitting wood into thin sheets	Veneer sheets, laminate sheets	Applies only to wood
Malting	Action of forcing the germination of cereals seeds in order to improve the palatability of fermented liquids	Malted barley	

PROCESS	DESCRIPTION	EXAMPLE OF RESULTANT COMMODITY	OBSERVATIONS
Pasteurization	Heating food in order to kill undesirable or harmful micro-organisms	Pasteurized juices, alcoholic beverages (beer, wine)	May be combined with fermentation
Polishing (of grain)	To make smooth and shiny by rubbing or chemical action removing the outer layers from grains	Polished rice	
Preservation in liquid	The process of preparing foods in a suitable liquid medium (e.g. in syrup, brine, oil, vinegar or alcohol) to allow them to be kept for long periods of time without spoiling or deteriorating	Preserved fruits, vegetables, tubers, bulbs	The preservation process should be completed prior to entry
Pulping (of wood)	Mechanical and chemical processing of wood products as part of the process of paper production	Pulped wood/fibres	Applies only to wood
Pureeing (including blending)	Making homogenized and spreadable fruit and/or vegetable tissues, e.g. by rubbing through a sieve or using a blender	Pureed items	Normally combined with pulping fruits or vegetables
Roasting	To dry and brown by exposure to dry heat	Roasted peanuts, coffee and nuts	
Sterilization	Destruction of pests by the application of heat (vapours, dry heat and boiling water), cold, drying, irradiation or chemical treatments	Sterilized substrates, juices	Sterilization may not change the nature of the commodity in an evident way, but significantly affects associated regulated pests
Sugar infusing	Action of coating and infusing fruits with sugar	Crystallized fruit, fruit infused with sugar	Usually combined with pulping, boiling, drying

PROCESS	DESCRIPTION	EXAMPLE OF RESULTANT COMMODITY	OBSERVATIONS
Tenderizing	A process to increase the moistness of dried or dehydrated items by the application of steam under pressure or submerging in hot water	Tenderized fruits	Usually applied to a dried commodity

TYPE B Processed to a point where the commodity remains capable of harbouring and spreading regulated pests.

PROCESS	DESCRIPTION	EXAMPLE OF RESULTANT COMMODITY	OBSERVATIONS
Chipping (of wood)	Having a small piece broken off	Chipped wood	
Chopping	To cut into pieces	Chopped fruit, nuts, grains, vegetables	
Compressing	Action of compressing into a compact body	Pressed or pressure-packed fruits and fibres	
Cooking (enough boiling, heating, microwaving, including rice parboiling)	Action of transforming raw material and making suitable for consumption by enough heating	Properly cooked items	Frequently involves chemically transforming a food, thus changing its flavour, texture, appearance, or nutritional properties
Crushing	Action of breaking and reducing the size of plant material by application of force	Herbs, nuts	Usually applied to dried products
Drying/ dehydration	The removal of moisture by natural (e.g. sun) or artificial means	Dehydrated fruit, sun dried tomatoes	
Extrusion/ pressurization	Forcing out a body by pressure	Pellets, reconstituted wood	
Painting (including lacquering, varnishing)	To coat with paint	Wood and canes, fibres	
Peeling and shelling	Action of removing of outer or epidermal tissues	Peeled fruits, grains, nuts	
Post-harvest handling	Process of grading, washing or brushing, and/or waxing fruits and vegetables	Graded, washed, or brushed, and/or waxed fruit and vegetables	Usually carried out in packing houses to fresh products and grains

APPENDIX 1

CLASSIFICATION OF COMMODITIES INTO PHYTOSANITARY RISK CATEGORIES