



# Diversion From Intended Use

Consideration of the extent of the issue



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This paper reviews the issue of the diversion after import of plant products and other regulated articles from the intended use, which is the declared purpose for which these items are imported. The two-part question addressed is to what extent this diversion leads to additional pest risk, or the anticipation of diversion leads to unjustified restrictions to trade. This paper was drafted by M. Megan Quinlan and James Alden and edited by Rebecca Murphy, through Imperial College Consultants Ltd., and reviewed by the IPPC Implementation Unit. The team would like to acknowledge and thank all individuals and NPPOs who responded to the IPPC survey, or provided notes regarding DFIU issues. Their active participation was greatly appreciated and was key to the emerging understanding of the issue.

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## Abbreviations and Acronyms

<b>CEPM</b>	Committee of Experts on Phytosanitary Measures (predecessor of the CPM)
<b>CPM</b>	Commission on Phytosanitary Measures
<b>DFIU</b>	diversion from intended use
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>ICPM</b>	Interim Commission on Phytosanitary Measures (predecessor of the CPM)
<b>IPPC</b>	International Plant Protection Convention
<b>IRSS</b>	Implementation Review and Support System (of the IPPC)
<b>ISPM</b>	International Standards for Phytosanitary Measures
<b>MERCOSUR</b>	Grupo Mercado Común del Sur
<b>NAPPO</b>	North American Plant Protection Organization
<b>NPPO</b>	national plant protection organization
<b>OCP</b>	official contact point
<b>PRA</b>	pest risk analysis
<b>RPPO</b>	regional plant protection organization
<b>RSPM</b>	Regional Standards for Phytosanitary Measures
<b>SBDS</b>	Subsidiary Body on Dispute Settlement
<b>SC</b>	Standards Committee (of the IPPC)
<b>SPG</b>	Strategic Planning Group (of the IPPC)
<b>SPS</b>	sanitary and phytosanitary, as in the WTO Agreement on the Application of Sanitary and Phytosanitary Measures
<b>WTO</b>	World Trade Organization

# Glossary of Terms

Official definitions include terms in bold when they are also defined in the IPPC Glossary. The more relevant official definitions in this study include:

Source: ISPM 5: *Glossary of phytosanitary terms*

<b>compliance procedure</b> (for a <b>consignment</b> )	<b>Official</b> procedure used to verify that a <b>consignment</b> complies with <b>phytosanitary import requirements</b> or <b>phytosanitary measures</b> related to <b>transit</b> [CEPM, 1999; revised CPM, 2009]
<b>cut flowers and branches</b> (as a <b>commodity class</b> )*	<b>Fresh</b> parts of <b>plants</b> intended for decorative use and not for <b>planting</b> [FAO, 1990; revised ICPM, 2001; revised CPM, 2015]
<b>grain</b> (as a <b>commodity class</b> )*	<b>Seeds</b> intended for processing or consumption and not for <b>planting</b> (see <b>seeds</b> ) [FAO, 1990; revised ICPM, 2001; revised CPM, 2015]
<b>integrity</b> (of a <b>consignment</b> )*	Composition of a <b>consignment</b> as described by its <b>phytosanitary certificate</b> or other <b>officially</b> acceptable document, maintained without loss, addition or substitution [CPM, 2007]
<b>intended use</b>	Declared purpose for which <b>plants</b> , <b>plant products</b> or other articles are imported, produced or used [ISPM 16, 2002; revised CPM, 2009]
<b>phytosanitary security</b> (of a <b>consignment</b> )*	Maintenance of the <b>integrity</b> of a <b>consignment</b> and prevention of its <b>infestation</b> and <b>contamination</b> by <b>regulated pests</b> , through the application of appropriate <b>phytosanitary measures</b> [CPM, 2009]

Note: These definitions are sourced from the IPPC *Glossary of phytosanitary terms* (ISPM 5). This list includes only the glossary terms that are used in this guide. The glossary is updated annually based on decisions taken by the IPPC Commission on Phytosanitary Measures (CPM). The complete and updated glossary is maintained at: <https://www.ippc.int/publications/glossary-phytosanitary-terms>. The definitions are accurate as of August 2015.

\* Indicates that the term, at the time of publishing, is on the work programme of the Technical Panel for the Glossary, which means the terms or definitions may be revised or deleted in the future.



## Preface

This paper reviews the issue of diversion after import of plants, plant products and other regulated articles from the intended use, which is the declared purpose for which these items are imported. The objective of the study was to determine whether this practice is widespread and counteracting it requires further support or guidance through the International Plant Protection Convention (IPPC), or whether it is not significant for plant health. The study was part of a larger initiative of the IPPC's Implementation Review and Support System (IRSS) to review and identify ways to facilitate implementation of the Convention and the international standards, and support contracting parties in achieving national phytosanitary capacity.

Decisions about managing pest risk are made on the information available to the national plant protection organization (NPPO) at the time of the pest risk analysis (PRA); therefore any change in use can lead to unmanaged pest risk to the importing country. The practice of diversion from intended use (DFIU) may be unintentional, or done with knowledge of its illegal status. It is rarely documented or reported, but anecdotal evidence suggests it is occurring in most parts of the world. It is considered most serious when products designated for consumption (including grain), time-limited decorative purposes (such as cut flowers and branches) or processing instead end up being used for planting, so that any associated pests may be introduced into the open environment unchecked. On the other hand, countries may impose measures in anticipation of a diversion but without proper analysis of the likelihood or actual impact of that diversion. If measures are imposed that are not linked to the pest risk assessment process, this may lead to a lack of transparency in pest risk management and phytosanitary import requirements and possibly trade barriers.

The study found that the practice of adding measures in anticipation of diversion, without a

proper link to the PRA, is widespread and fairly common in particular sectors, such as potato and other tubers, cut flowers, certain fruits and, most recently, avocado. The measures are overwhelmingly aimed at increased risk that comes with planting. In both scenarios – actual diversion and its associated increase in pest risk or anticipated diversion and its associated additional phytosanitary measures – current practices are not aligned with the existing international guidance, which is to link and fully document the pest risk assessment with phytosanitary import measures.

NPPOs do not have the resources to prevent diversion or the means to monitor the final use of all regulated plant products entering their territories. Nevertheless, some approaches to maintaining more control along the import pathway have been employed. The plant health community could share any experiences with compliance procedures aimed at ensuring the end use of an import, and discourage unjustified procedures. The widespread use of measures to avoid consequences of diversion indicates that this aspect of DFIU has potentially global consequences and merits further guidance in order to achieve a technically justified, transparent and harmonized approach.

# 1 Introduction to Study

## 1.1 IPPC and SPS context for the issue

The International Plant Protection Convention (IPPC, 1997) is an international cooperative agreement among its 182 contracting parties with the purpose of preventing the introduction and spread of pests. The IPPC provides an international framework for plant protection with authority to develop International Standards for Phytosanitary Measures (ISPMs) as guidance to its contracting parties. The guidance is made more binding through the World Trade Organization's (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures (WTO, 1994; referred to throughout the report as the SPS Agreement) insofar as the IPPC is referenced as the organization developing international standards for plant health (phytosanitary) measures. The Convention is implemented through national plant protection organizations (NPPOs) on a country level and regional plant protection organizations (RPPOs) regionally. Among the ISPMs are those that have been developed for pest risk analysis (PRA), which enables NPPOs of the importing contracting parties to analyse risks from trade. The PRA is also the framework for evaluating and selecting science-based measures to safeguard cultivated and wild plants by reducing any pest risk through phytosanitary measures. Phytosanitary measures are required to be in proportion or commensurate to the assessed risk.

The analysis undertaken for a given commodity, or other pathway, is based on its intended use. If

there is diversion from intended use (DFIU), the pest risk assessment may not be accurate and therefore the management may not be appropriate to the potential risk.

On the flip side, an exporting contracting party should not be subjected to additional measures that have not been justified in the PRA process. Furthermore, Article 2.2 of the SPS Agreement requires sufficient scientific evidence for measures (WTO, 1994). The evidence should be included in the PRA (Article 5.1), as confirmed in the WTO dispute on varietal testing, and there must be a rational relationship between the measure and the risk assessment (WTO, 1999, 2015a).

As DFIU relates to fundamental concepts like PRA, scientific justification and appropriate strength of phytosanitary measures, it is important to understand the extent to which it occurs and its impact on compliance with the IPPC principles and ISPMs and the SPS Agreement.

## 1.2 Background

This desk study was carried out through the IPPC's Implementation Review and Support System (IRSS) to clarify and validate the extent to which DFIU occurs in international trade in plants, plant products and other regulated articles.

The issue of DFIU was raised by the United States of America in response to a call for new topics for the IPPC standards setting work plan in 2013. The IPPC Standards Committee (SC) reviewed the

<sup>1</sup>/ In paragraph 155 (SC, 2013), the Standards Committee commented thus, thereby noting the potential importance of the matter :

"Concerns were expressed regarding the submission on diversion from intended use, and the SC concluded that it should not be added. The SC agreed that intended use is an important issue, as also raised in the discussion on the Specification on grain (see agenda item 8.1) and in the outcome of the Framework for standards Task Force report. One member noted that the Sanitary and phytosanitary measures agreement (SPS) Committee may have started working on this, and the SC agreed that this should be investigated further and formed a group to prepare a paper to be presented at a future meeting."

No record of the SPS Committee taking up this issue per se has been found during this study, except that the case of avocado imports is noted by the SPS Committee (see this report, Findings).



proposed topics at their November 2013 meeting (SC, 2013) and concluded that DFIU should not be added to the work plan at that time. They did consider, however, that the topic merited further consideration<sup>1</sup>. A discussion paper was prepared for the SC May 2014 meeting and the issue was reported on in the meeting report (SC, 2014). The Commission on Phytosanitary Measures (CPM) considered DFIU in 2014 in the context of the topic of traceability and potential DFIU during the international movement of grain (CPM, 2014; see 9.4.2) and recommended that this be considered further by the Strategic Planning Group (SPG) in October 2014. The United States of America and Canada presented a paper to this meeting (SPG, 2014), which focused on the need for a standard and possible components. The CPM Bureau also considered DFIU at their June 2015 meeting (CPM, 2015), where it was decided to narrow the topic of study to validation of the issue before moving on to further analysis and recommendations.

Additionally, deviation from intended use was discussed at the 25th Technical Consultation among RPOs (IPPC, 2013a). (Feedback from participants indicated that the term "deviation from intended use" was considered to be the same as "diversion from intended use", the term employed in this study.)

### 1.3 Purpose

This IRSS study was commissioned in order to validate whether the issue of DFIU of plants, plant products and other regulated articles constitutes a serious threat to plant health; and if so, whether this is occurring globally or is more restricted to particular regions or sectors. The study was also to identify the context of DFIU in relation to the principles and provisions of the Convention, ISPMs and the SPS Agreement. This would confirm its relevance and place within the IPPC mandate. The principles relating to the need for integrity of planned pathways of

plants, plant products and other regulated articles can be identified in IPPC and ISPM provisions and the SPS Agreement, even when not always explicit.

The study was to reach conclusions on the extent of the problem of DFIU and the need for additional guidance or support from the IPPC, either by development of additional guidance with the CPM or through its implementation or capacity initiatives. The study team was not tasked with providing specific recommendations for addressing the issue.

The CPM and its bodies may consider next steps based on this initial study. For example, the SPG proposed a study assessing the economic impact of DFIU and potential solutions to manage the risks (SPG, 2013), which could be developed from the findings of this study. This initial study is to define the problem, however, rather than develop guidance, develop further analysis or progress practical responses.

### 1.4 Methodology

DFIU may be unintentional or done with knowledge of its illegal status. In all cases, it is rarely reported to the IPPC or SPS Committee, or documented in any other publicly available repository. A mini-questionnaire (Annex 1) was sent to all official contact points (OCPs) by the IPPC Secretariat to discover examples of DFIU in different countries and regions. Members of the plant health community were also approached through the IPPC website in a call for case studies<sup>2</sup>, on a related Listserv<sup>3</sup> and on an individual basis. Annex 2 presents some further questions of importance for analysis of cases, although little opportunity emerged during this desk study for analysis of a fully substantiated case in the public domain.

A literature review was carried out to review the principles and context of the issue of DFIU in relation to the IPPC. It consisted of a review of internal IPPC panel and committee reports, as cited. Unless it is a diversion authorized by the NPPO, for example

2/ Posted 6 November 2015 at <https://www.ippc.int/en/calls/ippc-study-on-diversion-from-intended-use/>

3/ The International Plant Health Risk Assessment list server was developed to allow discussion of issues related to PRA. It is managed as PHRA-L, hosted at PHRA-L@WWW.AGR.GC.CA

if import requirements are not met but processing or transshipment would be appropriate, specific instances of diversion are generally not documented.

Standards, the Convention and SPS Agreement text were also reviewed. Regional Standards for Phytosanitary Measures (RSPMs) from all of the RPPOs were reviewed, based on availability on each website. Potential DFU cases were sought in annual reports from the WTO to the CPM, and some were followed up further in WTO documents. Only one journal publication was found that related to the issue. Some documentation of legislation and regulation was obtained for identified cases, but this was not a comprehensive legal review. Ultimately, unofficial and anecdotal information was the main basis to determine how widespread the issue of DFU might be. The informal nature of most information shared and requests for confidentiality meant that there was no attempt to confirm cases with the other trade partners involved. Mention of any specific country is based on published literature, not questionnaire responses. Conclusions and recommendations were based on the study team's analysis and interpretation of the findings and should not be taken as an official position.

## 2 Definition of the Problem

### 2.1 DFIU definition

The discussion paper prepared for the SPG October 2014 meeting defined DFIU as: **"when regulated articles are used for other than their originally declared purpose after importation"** (SPG, 2014). The definition covers any article that is regulated because of an identified potential pest association. The majority of such articles will be plants and plant products, even if the pest is hitch-hiking rather than infesting the product or other regulated articles. These plant products include the commodities that would be subjected to assessment by an importing country using the PRA process because of the potential pest risk (ISPM 11: *Pest risk analysis for quarantine pests*), or would be considered but not subjected to the PRA process because they are categorized as not susceptible to infestation (ISPM 32: *Categorization of commodities according to*

*their pest risk*). Table 2.1 provides some examples presented in the SPG discussion paper (SPG, 2014) to help to clarify the concept.

From the results of this study, DFIU also could be defined in more detail as: **The diversion after import of plants, plant products and other regulated articles with possible pest associations, from the end use that was indicated or anticipated at the time the pest risk was analysed and appropriate pest risk management was agreed.**

For this definition, the indication of use would be stated during the trade negotiation and in the import permit or pest risk management plan. With this definition, there is more clear scope to consider DFIU along pathways outside of commercial trade. Neither definition takes into account the two-part nature of the issue, however, which is discussed in section 3.

Table 2.1. Example cases of DFIU\*

Declared intended use	Possible DFIU
Table stock potatoes intended for consumption	May be used as seed-potatoes
Other vegetable bulbs/corms/tubers (e.g. garlic, onion and taro) imported for consumption	May be planted for propagation
Fresh fruit and vegetables imported for direct consumption	May be used as source for seeds for propagation
Grain intended for processing	May be used as seed
Ornamental cut flowers intended for time-limited decorative purposes	May be propagated
Seed intended for destructive laboratory testing	May be used for planting
Wood chips intended as fuel	May be used in landscaping

\*Source: SPG (2014).

## 2.2 Underlying concepts of pest risk and intended use

Pest risk is the probability of introduction and spread of a pest and the magnitude of its consequences (for quarantine pests; ISPM 5). A PRA is carried out for a particular use of the commodity under consideration, just as it is completed based on a particular source of the commodity – which relates to a geographic area with a specific pest status for the pest(s) of concern – and for a particular endangered area in the importing country or region. Any one of these factors (source, destination and intended use) could pose a different pest risk. Either (or both) the level of risk or the nature of the risk may differ, so that a pest risk management strategy imposed for one set of factors could be either inadequate or inappropriate for a different set of factors. Some DFIU may go undetected over long periods if the pest risk management for the original use is relevant to and adequate for the actual risk from the new use. Of course, the introduction of a regulated pest associated with the commodity and use may simply not happen, regardless of the estimated probability of an introduction occurring. This, however, would be a matter of chance, which could not be relied on to protect national plant resources.

The various scenarios that can occur in movement of plants, plant products and regulated articles, and their relationship to pest risk are catalogued in a table in Annex 3. This helps to further

clarify what is considered as DFIU for this study versus other practices that also affect pest risk.

The other main component of the proposed definitions refers to a “declared purpose” (SPG, 2014) or “the end use that was indicated or anticipated” (this study). Therefore, the motivation for a diversion is not as important as the information provided to the importing contracting party at the time of proposing trade. Table 2.2 covers some of the references to and definitions of intended use (highlighted for emphasis) in ISPMs.

References to the concept of intended use are laid out in ISPM 32 because the concept is critical in the categorization step in the PRA. If the categorization results in a PRA not being conducted because of the specific intended use (e.g. processing), and then the intended use is changed, the premise of that ISPM is undermined.

Plants for planting are already considered a higher pest risk than other regulated materials (NAPPO, 2008; ISPM 36: *Integrated measures for plants for planting*). In general, there is a significant change in pest risk when a plant or portion of a plant that had been assessed for another use is diverted to planting. Specific reference to intended use appears in all ISPMs for plants for planting, as outlined in Table 2.3.

Further consideration of how DFIU relates to principles and responsibilities is presented in the following section.

Table 2.2. Concept of intended use in relation to PRA and management

**ISPM 2 Framework for pest risk analysis**

For pathways [analysis], information about the commodity, including modes of transport, and its **intended end use**, is essential.

**ISPM 11 Pest risk analysis for quarantine pests**

2.2.1.5 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.

2.2.3 In the case of plants as pests, assessment of spread concerns spread from the location where the plants are intended to grow or from the **intended use** to the endangered area.

**ISPM 12 Phytosanitary certificates**

2.1 Different phytosanitary requirements may apply to the different **intended end uses** as indicated on the phytosanitary certificate.

**ISPM 20 Guidelines for a phytosanitary import regulatory system**

5.1.4 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 degree of processing and/or its **intended use**.

5.1.6.1 An NPPO may decide not to apply phytosanitary action against a regulated pest or in other instances of non-compliance where phytosanitary actions are not technically justified in a particular situation, such as if there is no risk of establishment or spread (e.g. a change of **intended use** such as from consumption to processing or when a pest is in a stage of its life cycle which will not enable establishment or spread), or for some other reason.

**ISPM 23 Guidelines for inspection**

One of the factors to decide the use of inspection as a phytosanitary measure is the commodity type and its **intended use**.

**ISPM 32 Categorization of commodities according to their pest risk**

The concept of categorization of commodities according to their pest risk takes into account whether the product has been processed, and if so, the method and degree of processing to which it has been subjected and the commodity's **intended use** and the consequent potential for the introduction and spread of regulated pests.

**1.2 Intended use of the commodity**

**Intended use** is defined as the declared purpose for which plants, plant products or other articles are imported, produced or used (ISPM 5). The **intended use** of a commodity may be for:

- planting
- consumption and other uses (e.g. crafts, decorative products, cut flowers)
- processing.

The **intended use** may affect a commodity's pest risk, as some **intended uses** may allow for the establishment or spread of regulated pests. Some **intended uses** of the commodity (e.g. planting) are associated with a higher probability of a regulated pest establishing than others (e.g. processing). This may result in the application of different phytosanitary measures for a commodity based on its **intended use** (e.g. soybean seed for sowing and soybean grain for human consumption). Any phytosanitary measures applied should be proportional to the pest risk identified.

Abbreviations: ISPM, International Standards for Phytosanitary Measures; NPPO, national plant protection organization; PRA, pest risk analysis.

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**Table 2.3. Concept of intended use for plants for planting**
**ISPM 16 Regulated non-quarantine pests: concept and application**
**4.2 "Intended use"**

The "**intended use**" of plants for planting may be:

- growing for direct production of other commodity classes (e.g. fruits, cut flowers, wood, grain)
- to remain planted (e.g. ornamentals)
- increasing the number of the same plants for planting (e.g. tubers, cuttings, seeds).

Pest risk varies with different pests, commodities and **intended use**. Distinctions may be made between commercial use (involving a sale or intention to sell) and non-commercial use (not involving a sale and limited to a low number of plants for planting for private use), where such a distinction is technically justified.

**ISPM 21 Pest risk analysis for regulated non-quarantine pests**

*Specific guidance on PRA of regulated non-quarantine pests including:*

- *Stage 1: Initiation*
- *Stage 2: Pest risk assessment especially of plants for planting as the main source of infestation and economic impact on their **intended use***
- *Stage 3: Pest risk management (and other sections).*

**ISPM 36 Integrated measures for plants for planting Annex 1**
**Intended uses that affect pest risk**

Plants for planting are classified in ISPM 32 as a high pest risk commodity category. Different **intended uses** that affect the pest risk may include whether plants are grown as annuals or perennials, whether they are grown indoors or outdoors, whether they are grown in urban areas, field or nursery, etc.

Abbreviations: ISPM, International Standards for Phytosanitary Measures; PRA, pest risk analysis.

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## 3 Principles and Responsibilities

### 3.1 The two-part nature of the issue

The issue of DFIU has two parts. First, diversion can lead to a higher or unanticipated pest risk. If there is potential for a commodity to be used in a way other than its originally declared purpose for importation, it may be subject to DFIU. Without correct information about the use, there can be no harmonized response to the scenario of diversion occurring. Pest risk management cannot be proportional to the estimated risk and justified based on the PRA.

Second, the expectation of a diversion, without analysis of the risk that would pose, can lead to unjustified measures. In addition to references in ISPMs, Article VI.1(b) of the Convention requires that phytosanitary measures are "limited to what is necessary to protect plant health and/or safeguard the intended use and can be technically justified by the contracting party concerned" (IPPC, 1997). Trade barriers could arise in anticipation of DFIU, or differing requirements could be imposed on proposals that would appear to have the same pest risk. Therefore, DFIU presents concerns from two sides of the issue, as illustrated by Figure 3.1.

### 3.2 IPPC principles

Table 3.1 lays out the relationship between the IPPC principles and the issue of DFIU. ISPM 1 (*Phytosanitary principles for the protection of plants and the application of phytosanitary measures in international trade*) includes the possibility of modification of phytosanitary measures by the importing contracting party, but only on the basis of a new or updated PRA or relevant scientific information. "Contracting parties shall, as conditions change, and as new facts become available, ensure that phytosanitary measures are promptly modified or removed if found to be unnecessary" (Article VII.2(h)). Therefore, if DFIU is identified, the pest risk management could be adjusted by the importing contracting party at that time. This adjustment post-import could make the importing contracting party more vulnerable, however, than if risks are identified in advance and kept off-shore through management. By the time DFIU is detected, a quick response and, possibly, emergency measures would be needed. This is very resource demanding for the importing NPPO.

One case discussed in the section 4 (Findings) shows that declaring emergency measures when diversion is suspected, in order to allow time for revision of the PRA related to existing phytosanitary import requirements, is politically charged and very demanding on the NPPO taking this step.

Figure 3.1. The two sides of concern arising from diversion from intended use.



**Table 3.1. DFIU and principles of the IPPC\***

\* Basic principles are underlined in this text, with operational principles having a double sub-scoring.

The IPPC has basic principles relating to the rights and responsibilities of contracting parties to achieve the cooperation which is the foundation to the treaty. There are also operational principles, which are related to the establishment, implementation and monitoring of phytosanitary measures, and to the administration of official phytosanitary systems (ISPM 1). A number of these principles are involved when considering DFIU.

A country holds sovereignty to impose measures to protect plant health in its territory but only in line with necessity, as far as what is needed to prevent the introduction or spread of regulated pests.

The measures imposed are to be in the spirit of managed risk consistent with the (estimated) pest risk and with minimal impact. The PRA methodology has been adopted as a way to provide transparency in the rationale for the decision process to determine the need for, and for selection of, these measures.

Anticipating DFIU could be used to add measures for one contracting party and not another, despite the same pest status, which is not in line with the principle of non-discrimination. One concern has been that imposing additional measures without conducting the pest risk assessment portion of the PRA on this alternative use results in a loss of technical justification of measures. By definition, the phytosanitary integrity and security of consignments could be achieved and yet DFIU would still occur, because the operational principle applies to the period prior to export and DFIU occurs after import.

Modification of the pest risk management because of new information, or emergency measures in the face of an introduction linked to DFIU, would be more appropriate than adding measures as part of the original trade agreement. Yet, importing contracting parties would be more likely to suffer an introduction if measures were postponed until DFIU was observed. This is not automatically the case, however, because the management measures in place for the original, intended use might address this new pest risk as well. (Notification of non-compliance is not relevant if the measures required in the trade agreement were being met, but they simply were not managing the pest risk adequately.)

The SPG discussion paper on DFIU (SPG, 2014) has proposed harmonization as the best way forward. Another approach is to add measures which ensure compliance with the intended use. This could be as part of a systems approach or as separate individual measures.

Owing to the lack of guidance on this issue, roles and responsibilities between the exporting and importing contracting parties are not clear. It is not feasible to expect the NPPO to have capacity or resources to be monitoring for DFIU after import.

Owing to the importance and widespread use of the concept in various ISPMs, it may be worth including **intended use** as a principle, in and of itself, in future revisions of ISPM 1.

Abbreviations: DFIU, diversion from intended use; IPPC, International Plant Protection Convention; ISPM, International Standards for Phytosanitary Measures; NPPO, national plant protection organization; PRA, pest risk analysis; SPG, Strategic Planning Group.

### 3.3 SPS principles

The principles of the SPS Agreement have a similar relationship to the issue of DFIU as those of the IPPC, although focusing on reducing trade impacts. As already noted, Article 2.2 limits the application of measures to the extent necessary; measures shall not be maintained without scientific justification.

Article 5 repeats the need for scientific justification for any measure imposed, and the right of exporting countries to question the rational of any phytosanitary measures. However, as the Agreement is clear that measures can be imposed when a risk is present, it is really a question of whether the measures are included in the PRA and linked to the risk assessment.



There is provision for emergency or provisional measures if a new pest risk is encountered (Annex B), although pursuit of further information for a new PRA and notification are required. The option to modify measures when new conditions arise is also included in the SPS Agreement, in Annex C:

(h) whenever specifications of a product are changed subsequent to its control and inspection in light of the applicable regulations, the procedure for the modified product is limited to what is necessary to determine whether adequate confidence exists that the product still meets the regulations concerned.

This was probably originally included with food safety in mind, but should equally apply to the addition of measures upon discovery of a DFIU.

Finally, because the nature of the issue is not explicitly discussed in existing guidance, DFIU would be a hindrance to the dispute process should a request be made for a case to be considered. There is no principle laid out in the SPS Agreement that would impede possible responses to DFIU if it were discovered, but imposing measures in expectation of it occurring, without including an assessment of that new use, is against the principles of the SPS Agreement.

### 3.4 Assignment of responsibilities

If diversion from the intended production chain, packaging and handling pathway occurs before export from the country or area of origin, the pest risk could differ from what was anticipated in a PRA, but the impact will not affect the importing country. For example, if a commodity has been harvested but not gone through a required post-harvest treatment, and is diverted into the domestic market, it could spread a pest to a new part of the country of origin. This issue is not considered under DFIU since

this covers diversion after import. Responsibility for diversion after import, as with its consequences, clearly falls to the NPPO of the importing contracting party. Is it realistic, however, to expect NPPOs to monitor final use of imports?

In the discussion at the 25th Technical Consultation among RPPOS (IPPC, 2013a) the forum noted that it is not clear how the responsibilities to avoid DFIU are divided between the importing and exporting contracting parties. The NPPO is allowed to monitor trade, as a compliance procedure to ensure import requirements are met. This does not mean it has capacity to detect and control deviations or diversions after import at the national level, which is beyond the resources of most NPPOs. This conclusion of the Technical Consultation is repeated in the conclusions of this study.

Another option is to take steps in advance, as part of the phytosanitary import requirements or operational plan, to prevent diversion from the declared purpose after import. A number of countries were found to be doing this by adding measures such as devitalization of cut flowers or seed that is designated as not for planting. Other measures to prevent DFIU up to the point of sale could include physical containers such as mesh or plastic wrap and documentation or placing in bond to maintain the integrity and phytosanitary security of a consignment<sup>4</sup>. If one considers compliance management as part of a systems approach (ISPM 14: *The use of integrated measures in a systems approach for pest risk management*), these additional measures would all be permissible as part of the integrated system. This still requires that a direct relationship can be drawn to the PRA, however.

In addition, some compliance agreement or operational agreement could be employed. ISPM 20 (section 6.2) provides for requirements of records for imported consignments that are:

<sup>4</sup>/ Currently **integrity** (of a consignment) is defined in ISPM 5 as: "Composition of a consignment as described by its Phytosanitary Certificate or other officially acceptable document, maintained without loss, addition or substitution" [CPM, 2007].

This definition could more clearly include DFIU with the addition of the term diversion, as in: "... maintained without loss, addition or substitution, or diversion..." [emphasis added].

Whereas **phytosanitary security** (of a consignment) (ISPM 5) could be altered to mean (added words underlined): "Maintenance of the integrity of a consignment, the conditions of it considered in the PRA and prevention of its infestation and contamination by regulated pests, through the application of appropriate phytosanitary measures".

This would then cover changes in the endangered area, time scale, known pests, etc. as well as DFIU. Ramifications of such a change would have to be considered.

- with specified intended uses
- subject to post-entry quarantine or treatment procedures
- requiring follow up phytosanitary action (including trace-back), according to pest risk, or
- as necessary to manage the phytosanitary import regulatory system.

Trace-back is a topic in the IPPC standards work plan and of importance for implementation of various standards. ISPM 25 (*Consignments in transit*) is aimed at transiting consignments, but the measures listed in section 1.3.2 for transit could also apply to maintaining and monitoring that the consignment is delivered for its intended use within the territory. The legally binding system is discussed further in a recent IPPC manual on transit (IPPC, 2014). Using management measures to reduce the possibility of diversion is discussed further in Conclusions.

To summarize, there appears to be authority for an importing contracting party to monitor the conditions of entry for compliance and to include these post-entry management measures. These must be justified by a PRA, however, with measures clearly linked to the assessment of risk – in this case the assessment of the undeclared alternative use, in addition to the use proposed by the exporting party.

Various scenarios of trade have been considered for their impact on pest risk. Annex 3 describes a range of them, to show how DFIU fits in this context.



## 4 Findings

### 4.1 Survey of official contact points

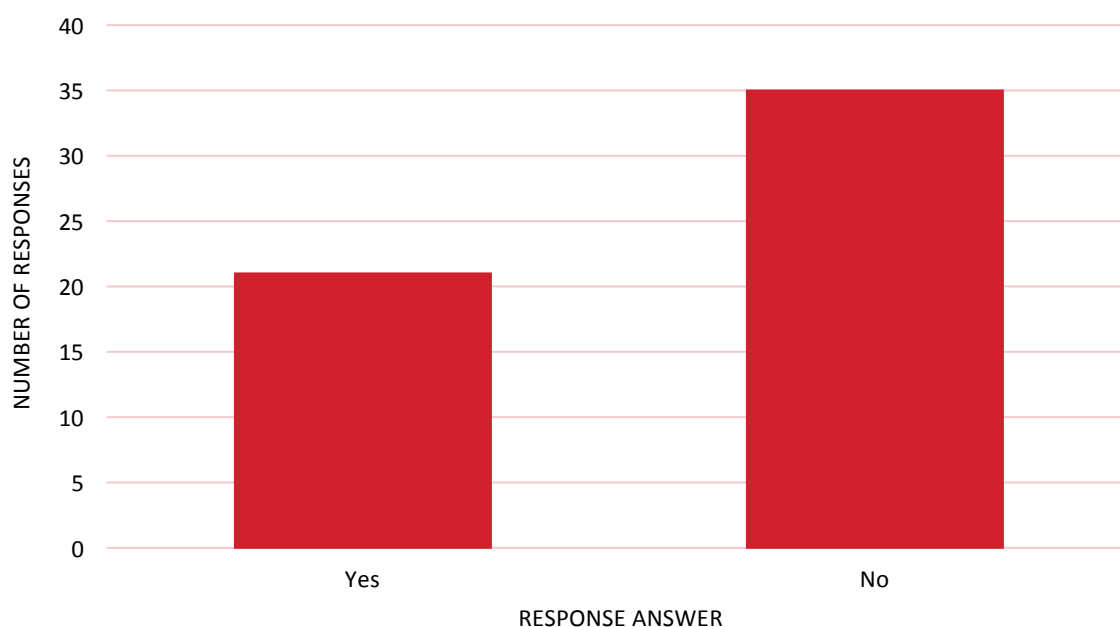
A “mini-questionnaire” (Annex 1) was sent to the OCP of each of the 182 contracting parties in the seven IPPC regions (Africa, Asia, Europe, Latin America and Caribbean, Near East, North America and the South West Pacific). The questionnaire was also sent to RPOs. Before closure of this report, there were 56 responses to the questionnaire, with 21 respondents (37.5%) stating that “yes” they were aware of unauthorized DFIU occurring in their country (see Figure 4.1).

Owing to a low level of responses to question 2 about actual cases (see Annex 1), it was not possible to look for any global or regional patterns or trends. Responses to the questionnaire itself did not reveal any specific case studies, although several cases were identified informally, following the prompt of the survey.

Although details of cases were not shared, the overall response level of nearly one-third of the contracting parties in fewer than 60 days was considered both representative in number and indicative of the importance of the topic. Because of the anonymity of the survey, the geographical source was not known unless it was stated in the response. However, through those survey responses that did state their country and the other sources of feedback noted below, we concluded that there were responses from most if not all of the IPPC regions.

Owing to the two-part nature of the issue, which became evident during this study, it would be useful to include an additional question in any future survey, “Are you aware of any phytosanitary import requirements aimed at diversion from intended use that are not justified in the related PRA?”.

Figure 4.1. Responses to question 1 of the mini-questionnaire: “Are you aware of any unauthorized diversion from intended use occurring in your country?”.



## 4.2 Interviews and emailed responses

Additional comments and cases were provided directly via email. These resulted from the survey, individual interviews and the message posted on the PRA listserv (see Methodology).

Some of the historical cases mentioned as either occurring or raising concerns that have led to additional restrictions or trade negotiations include:

- grain for consumption diverted for planting
- seed for bird food going for planting
- popcorn for consumption going for planting
- sweet potatoes for consumption going for planting
- table potatoes for consumption going for planting
- wood chips for burning going for landscape or other uses
- citrus or other fruits for juicing going for consumption
- cut flowers for time-limited decorative purposes going for home garden planting
- growing plants requiring post-entry quarantine bypassing this step
- planting material for glasshouses going for outdoor propagation.

This anecdotal evidence shows that concern about diversion from consumption, decorative use or processing to planting is particularly high. It mirrors the ISPMs identifying planting material as a higher-risk use owing to longer survival in the environment and more opportunity for associated pests, or the plant itself if it is a pest, to establish and spread.

Additional cases shared by email specifically identified garlic, garden peas, rice and ginger as being diverted to planting when the declared use was consumption. The countries reporting these diverted products are in three different IPPC regions.

## 4.3 Cases identified

In this limited study, details of case studies were not obtained because of concerns of confidentiality. A more comprehensive case study template (Annex

2) could be used in follow-up studies and guided interviews, if that detail is required.

## 4.4 Literature review

The IPPC has mechanisms to facilitate dispute settlement as one of the principles of the Convention. The routine reports to the CPM each session on phytosanitary disputes and trade concerns from 2000 to 2015 were reviewed and there was no clear evidence that any of the documented cases related to DFIU. In recent years, more emphasis has been placed on dispute avoidance and self-reporting of implementation challenges. The specific cases brought to the IPPC for dispute facilitation are confidential and there are no recent reports available on it (although see IPPC (2013b) for a list of cases by pest organism). Interviews with those working with the dispute process suggest that there continues to be fundamental misunderstanding of the PRA process at times, as well as unjustified or weak links between the assessment and selection of management measures. There are no current cases under consideration in the dispute settlement mechanism that report any issues of DFIU.

More details would be needed to determine if DFIU was a concern on the part of the importing contracting parties in cases where duplicative or unsupported restrictions have been imposed.

## 4.5 Avocados

Two similar issues have arisen in Central and South America regarding suspected DFIU of imported avocados. Both relate to imports of avocados with avocado sunblotch viroid. This viroid is spread through infected nursery stock, contaminated tools and to a lesser degree pollen from infected trees (UC IPM, 2008). The presence of the viroid in imported fruit is only a problem if DFIU were to occur. In 2014 Chilean indigenous communities and growers associations requested a ban on importation of avocados from Peru, however, as cases of avocados infected with avocado sunblotch viroid were detected in supermarkets in the nation's capital Santiago

**Table 4.1. List of cases of DFIU identified from the survey and via email contacts**

Identified case	Description
Propagation of cut flowers	Cut flowers intended for decorative purposes, planted in home gardens. Some importers now require devitalisation of all imported cut flowers which could be used for propagation, as a preventative measure
Donated grain for food aid	Food-aid grain planted (this case was unsubstantiated despite further inquiries)
Ware potatoes	Potatoes intended for consumption planted for propagation
Fruit and vegetable for consumption	Fresh fruit and vegetables imported for consumption are planted
Garlic intended for consumption	Garlic intended for consumption planted for propagation
Chickpeas intended for consumption	Chickpeas intended for consumption planted for propagation
Grain intended for consumption	Grain intended for processing possibly used as seed. Example exporting countries consider that the end use will mitigate the risk of introduction of not only seed-borne pathogens but also agricultural weed seeds. However, importing countries have not recognized this, claiming that wheat and pulses might be diverted for sowing
Woodchips	Woodchips intended as fuel used in landscaping
Ginger	Ginger intended for consumption planted for propagation. Some importing countries now require fumigation of fresh ginger imports from an exporting country, owing to the risk of ginger vectoring exotic nematodes being planted
Wheat and pulses	Wheat and pulses intended for consumption planted for propagation. Example exporting countries consider that the end use will mitigate the risk of introduction of not only seed-borne pathogens but also agricultural weed seeds. However, importing countries have not recognized this, claiming that wheat and pulses might be diverted for sowing

(FreshFruitPortal, 2014a). Chilean farmers were concerned that affected avocados intended for human consumption may be diverted and planted in Chile, and that the viroid could then spread to their commercial production. The NPPO of Chile, the Servicio Agrícola y Ganadero, said that sufficient measures were being taken to prevent introduction of the disease (SAG, 2013). The Chilean Supreme Court decision was not to allow the request to ban Peruvian imports of the crop. Although Peruvian avocado imports had been entering Chile since 2006, the Chilean avocado industry argued that previously the volume of import from Peru had been low, with the majority of supply coming in through ports in the north where pest risk could be lower. However,

there had been a shift in this pattern as the volume of Peruvian imports had increased. Bulk shipments now come into the central, avocado-growing region, which the president of the body representing the Chilean avocado industry argued increased the risk. This led the representative body to file the case and later appeal against the Supreme Court decision (FreshFruitPortal, 2014b).

In 2015, Mexico raised concerns with the WTO about the emergency measure taken by Costa Rica's phytosanitary service to suspend temporarily the issuance of import certificates for avocados of various origins (WTO, 2015b, 2015c, 2015d, 2015e). Mexico's concern was supported by Guatemala, South Africa and the United States of America. Costa Rica

justified the temporary suspension of import certificates, saying that the presence of avocado sunblotch viroid had been detected in imported avocados, and that Costa Rica had declared its territory free of this pest. Costa Rica said that the nature of the problem was urgent and therefore required urgent action in the prevention of importation of these crops. Mexico disputed this argument, saying that there was no basis for the action taken by Costa Rica, and that its consequence was a complete interruption of trade. Mexico requested that Costa Rica demonstrate the absence of the pest in its own territories, in line with ISPM 4 (*Requirements for the establishment of pest free areas*). (Studies carried out in 2014–2015 by its SPS authorities had established that Costa Rica was free from the viroid.) Mexico also argued that the action taken by Costa Rica was not proportional to the risk.

It is interesting that, in both of these well-documented cases, the risk of introduction of this viroid and possibly associated diseases is linked to planting rather than consuming the avocados, but this point was not among the main arguments made by exporters. Neither have the importing country NPPOs claimed any deficiency in the science behind the belief that the viroid is only going to establish if the infected avocados are planted. It would seem that this disease only spreads if there is DFIU (ie. planting in home gardens or farms rather than consumption of the fruit and destruction of any waste) or by transport of contaminated field equipment. Although neither avocado case has become a dispute at the time of this report, they are the first cases discovered in WTO records that are clearly related to DFIU.

## 4.6 Grain trade

The diversion of grain (seeds intended for processing or consumption) to planting is recognized as a phytosanitary issue. Cases have been noted in Africa (although unsubstantiated at the time of this report) and Asia (IPPC, 2011). The need for better guidance on the appropriate management of this DFIU has also been highlighted to the IPPC (IPPC, 2011). The SC indicated DFIU as one of the issues

to be addressed in the development of guidance on international movement of grain (SC, 2014). Grain was mentioned as one commodity likely to face DFIU in this study's survey. Although no PRA related to DFIU of grain has been identified, the concern about this issue appears to be global.

## 4.7 Cut flowers and branches

As a commodity class, these products are intended for time-limited decorative purposes and not planting. There are countries where planting attractive cut flowers or foliage in order to extend the buyer's enjoyment is commonplace. In at least one country that responded to the survey, propagating from ornamental or decorative flowers and branches is reportedly so common amongst the general public that measures to control it may not be effective. Australia requires a devitalization treatment of all cut flowers that could be propagated (Ahmad and Zaharah, 1998; ITC, 2004). New Zealand has a generic PRA (New Zealand MAF, 2002a, 2002b; Blanchon et. al, 2011) that supports devitalization treatment of all imported *Cordyline* and *Dracaena* flowers and branches (foliage), but this is justified with information on the potential pests that require propagation of these plants to spread. Although the requirement for the treatment is generic and not recognizing differences in pest status, it is an efficient method to support measures that effectively stop DFIU. The efficacy of devitalization measures, surprisingly, is not considered to be proven. There is insufficient literature on the efficacy of some treatments routinely used if the objective is entirely to prevent sprouting. If this approach were endorsed by the CPM, more coordinated research on efficacy of devitalization measures could result.

## 4.8 Ware potatoes

Although a review of legislation was not part of this study, it became apparent that numerous countries impose anti-sprouting treatments on table potatoes in order to prevent DFIU. Anti-sprouting measures are generally accepted by the exporters. (Seed-po-

tatoes are handled with much higher phytosanitary standards, such as post-entry quarantine and licensing of suppliers (e.g. SASA, 2010), and production in pest free areas.) The response of the Southern Cone region to this issue is described in section 4.9.

The hypothetical potential for DFIU of table potatoes was analysed (Fowler et al., 2014) to determine the potential phytosanitary risk associated with United States potato exports to Mexico intended for consumption ("table stock potatoes" or ware potatoes) being diverted for the unintended use of planting. A probabilistic pathway model was used to characterize the movement of white, yellow and russet potatoes from the United States of America into Mexico at current and doubled export volumes. By modelling the likelihood of these potatoes being diverted and specific pests becoming established, it was shown that there was a very low likelihood of one of the pests establishing. The authors concluded that the predicted low incidence of pest establishment via these pathways was probably due to the phytosanitary measure implemented in the United States of America, and to factors such as labelling and the use of sprouting inhibitors. The paper did not present an option of shipping without the use of the anti-sprouting treatment, only the addition of other measures.

#### 4.9 Approaches to ensuring intended use

The North American Plant Protection Organization's (NAPPO) RSPM 31 (*General guidelines for pathway risk analysis*; NAPPO, 2012) discusses control points along a pathway as a means to monitor what is actually occurring with a regulated pest situation. This concept could be extended past import to end use, with control points serving to inform the NPPO about the entire pathway. The NAPPO RSPM 40 (*Principles of pest risk management for the import of commodities*; NAPPO, 2014) offers post-entry measures for some situations, but indicates that strict control will be needed to impose measures after arrival of a product in the country.

One common practice, identified above, is for importing country NPPOs to require a devitalization

treatment before export. This has been used in cut flowers, grain, potatoes and other plant products where the intended use does not include planting.

Twenty years ago when the Grupo Mercado Común del Sur (MERCOSUR) harmonized import criteria across its membership, it included a decision contained in standards on quarantine treatments for potatoes (MERCOSUR, 1996a, 1996b) to employ an anti-sprouting chemical treatment on all potatoes for consumption to avoid the issue of DFIU. By 2003, the regional standard on potatoes had been revised and anti-sprouting treatments were not included because a decision was made that the treatment was not a phytosanitary measure (MERCOSUR, 2002; cited in national regulations such as MGAP/MEF, 2007). In an example of the national application of this change of policy, a resolution by Argentina (SAGPA, 2008) cites MERCOSUR Resolución No. 36 (10 December 2003) as the basis for not requiring anti-sprouting treatment within the MERCOSUR region. By implication, planning for DFIU of ware potato to planting would be considered trade restrictive in this region.

Although few cases were documented fully in the survey responses, the cases of grain, potatoes, cut flowers and more recently avocados demonstrate the extent of the two-part concerns regarding DFIU.



## 5 Conclusions and Recommendations

### 5.1 Conclusions

This paper reviews the issue of DFIU after import of plants, plant products and other regulated articles. The intended use is the declared purpose for which these items are imported. The purpose of the study was to estimate the extent of this issue and to evaluate the necessity for further guidance.

Some scenarios of what may occur during trade appear in Annex 3, to better define the scope of what is covered by DFIU in this study, and how pest risk could be affected by each of them. The survey of national OCPs and RPPOs provided useful information about possible cases of DFIU and measures imposed in anticipation of DFIU. It was important to supplement this with unofficial and directed enquiries to gain more insights. Information collected about cases of DFIU was insufficient and often offered confidentially; it is a sensitive topic. For these reasons, there is little in the literature about this issue. The cases described in most detail in this study, however, were drawn entirely from published materials (although they were discovered from leads provided through the survey, emails and interviews).

A clear conclusion is that concern about DFIU is affecting both importing and exporting contracting parties. First, because cases that do occur change the pest risk from what is assessed and managed through the PRA process. Second, because numerous countries have import requirements aimed at addressing this risk without transparent evidence for the risk, by linking these requirements to a PRA. The lack of clear guidance under the IPPC also would hamper any attempt to take disputes based on DFIU to the WTO.

Controlling the destination and end use of imported plants, plant products and regulated articles post-entry is difficult to achieve. NPPOs do not have the resources to prevent diversion after import or the means to monitor the final use of all regulated plant products entering their territory. It seems it would be

within their national sovereignty, if there is sufficient evidence that DFIU is likely to occur, to refuse trade that requires this additional monitoring. Contracting parties avoid such trade restrictions when possible, however. This has led to pragmatic use of measures to prevent planting of imports with supposed higher risk for diversion. In the overwhelming majority of cases, these measures are not linked to a risk assessment in which the risk of diversion is described and estimated. Furthermore, the efficacy of ad hoc practices such as the use of devitalization measures is generally unknown or undocumented. Devitalization for ware potatoes has been judged by MERCOSUR as not constituting a phytosanitary measure. Documentation of other importing countries or regions commenting on this widespread practice was not found. The lack of harmonization on this point demonstrates the need for further consideration.

The two concerns related to DFIU have both been recognized for some time, even though the issue was only recently raised again with the CPM, CPM Bureau, SC and SPG. Decades of potato regulation show the level of concern about ware potatoes (for consumption) going for planting when only certified seed-potatoes should. DFIU has been discussed specifically during the development of a standard on movement of grain. The case of avocado disease, which could be spread if imports designated for consumption were to be planted, has been raised recently at the SPS Committee as an example of allegedly unjustified measures or trade restrictions. So while this issue is not new, this study provides an opportunity to reconsider it.

In conclusion, the widespread use of measures to avoid consequences of possible diversion indicates that DFIU does impact on plant health and trade, and merits further guidance in order to achieve a technically justified, transparent and harmonized approach. The extent to which DFIU is actually occurring and increasing pest risk in importing countries or on a regional or global scale, remains unclear.



## 5.2 Recommendations

The overall recommendation is to support a more harmonized approach to this issue amongst contracting parties.

The terms of reference for this study did not include development of specific recommendations for response. However, some suggestions<sup>5</sup> arose which are listed here.

1. The IPPC could raise awareness among contracting parties that measures aimed at pest risk from DFIU that are not supported and justified in the PRA are not in line with the Convention or the SPS Agreement and should be removed, or a new PRA completed. Awareness raising may be achieved through this report and other activities of the IRSS, through regional meetings including the IPPC and possibly in conjunction with the SPS Committee.
2. Caution against inclusion of phytosanitary measures aimed at preventing DFIU or managing risks associated with DFIU, without linking them to the PRA, could be added to training material and courses on PRA and pest risk management.
3. Examples of PRAs where the issue of DFIU was included and accepted by both parties could be shared through the IPPC to assist those updating PRAs to increase the scope.
4. A further call for cases might clarify the value of grouping cases by motivation (unintentional, intentional) and the parties involved. For example, if it is the general public that plants garlic imported for consumption or cut flowers imported for decorative purposes, an education campaign might be more effective than attempting to provide more guidance within the IPPC framework. On the other hand, if there is an industrial sector where diversion of consignments has occurred, more direct involvement of the NPPO is required in both awareness raising and formulating compliance plans with that sector.

5. Many countries are using measures to maintain more control along the import pathway either to ensure the end use of an import or to prevent alternative uses such as planting. These practices could be shared and additional research coordinated on specific measures (e.g. efficacy of devitalization options), with unjustified measures being discouraged. Emerging technologies that could support trace-back and monitoring through to end use could be featured in a symposium, such as at the annual session of the CPM.
6. The ramifications of altering definitions related to consignments to include the concept of DFIU (prevention of or maintaining security against) should be discussed by the Glossary Panel to see whether this is an easy way to raise awareness and include the issue, or whether more study would be required. By including aspects of DFIU in official definitions, there are ISPMs that would then support action on the part of importing contracting parties who are presently unsure of their standing on prevention of this type of pest risk.

Additional work on the issue could be done through the IRSS. Possible approaches include –

- a workshop or forum on this issue, including seeking consensus with MERCOSUR on the status of devitalization as a dependent phytosanitary measures for reducing DFIU (this could be at the annual Technical Consultation of RPPOs)
- support and guidance to NPPOs for public or sectoral education on the impact of diversion.

<sup>5/</sup> Another minor suggestion is to include an additional question in any future survey: "Are you aware of any phytosanitary import requirements aimed at diversion from intended use that are not justified in the related PRA?"

Therefore, the CPM may wish to consider DFIU in light of the additional information reported here and decide next steps:

- development of a new standard or some other type of official guidance
- development of a brief issue alert, possibly as a glossy brochure, as unofficial guidance
- further work on harmonizing implementation of existing ISPMs implicitly relating to DFIU, including possible changes to definitions
- further study or educational type efforts to be led by the IPPC Secretariat.

## 6 References

For ISPMs, see below.

- Ahmad, S.H. & Zaharah, A.R. 1998. Postharvest treatment with glyphosate to devitalize rose and carnation cut flowers. *Acta Horticulturae*, 464: 541–541.
- Blanchon, D.J., Ennis, I.L., Lewthwaite, J.R., Large, M.F. & Bussell, W.T. 2011. New method for the devitalization of imported horsetail (*Equisetum hyemale*). *New Zealand Journal of Crop and Horticultural Science*, 40(1): 21–30.
- CPM. 2007. *Report of the Second Session of the Commission on Phytosanitary Measures, Rome, 26–30 March 2007*. Rome, IPPC, FAO.
- CPM. 2014. *Report of the Ninth Session of the Commission on Phytosanitary Measures, Rome, 31 March–4 April 2014*. Rome, IPPC, FAO.
- CPM. 2015. *Report of the CPM Bureau Meeting, Rome, 16–19 June 2015*. Rome, IPPC, FAO.
- Fowler, G., Erikson, L., Caton, B., Gutierrez, W. & Griffin, R. 2014. Modeling phytosanitary risk of unintended commodity use: the example of U.S. potato exports to Mexico. *Risk Analysis*, 34: 1663–1676.
- FreshFruitPortal. 2014a. *Peruvian avocados with sunblotch detected in Chile*. Available at <http://www.freshfruitportal.com/news/2014/08/18/peruvian-avocados-with-sunblotch-detected-in-chile/> (last accessed 18 November 2015).
- FreshFruitPortal. 2014b. *Chile: Court of Appeals rejects bid to block Peruvian avocado*. Available at <http://www.freshfruitportal.com/news/2014/07/11/chile-court-of-appeals-rejects-bid-to-block-peruvian-avocado-imports/?country=united%20kingdom> (last accessed 18 November 2015).
- IPPC. 1997. *International Plant Protection Convention*. Rome, IPPC, FAO.
- IPPC. 2011. *Report on the open-ended workshop on the international movement of grain, Vancouver, Canada, 6–8 December 2011*. Rome, IPPC, FAO.
- IPPC. 2013a. *Report of the Twenty-Fifth Technical Consultation among Regional Plant Protection Organizations, Colonia del Sacramento, Uruguay, 26–30 August 2013*. Rome, IPPC, FAO.
- IPPC. 2013b. *Update on the IPPC dispute settlement system review and the Ninth Meeting of the SBDS. Agenda item 15*. Prepared for the Eighth Session of the Commission on Phytosanitary Measures, Rome, 8–12 April 2013. CPM 2013/CRP/04. Rome, IPPC, FAO.
- IPPC. 2014. *Transit. Phytosanitary issues of consignments in transit: a guide for national plant protection organizations*. Rome, IPPC, FAO.
- ITC. (International Trade Centre). 2004. Problems experienced by the case study countries in complying with technical regulations and sanitary and phytosanitary measures of importing markets. *In Influencing and meeting international standards: challenges for developing countries*. Vol. 1. *Background information, findings from case studies and technical assistance needs*. Geneva, ITC/Commonwealth Secretariat, pp. 56–61.
- MERCOSUR (Grupo Mercado Común del Sur). 1996a. *Estándar 3.7 – Armonización de medidas fitosanitarias. Sub estándar 3.7.a – Intensidad de las medidas fitosanitarias. Sub estándar 3.7.b – Tratamientos cuarentenarios*. MERCOSUL/GMC/RES N°. 88/96. Available at <http://www.mercosur.int/innovaportal/v/527/2/innova.front/resoluciones> (last accessed 20 November 2015).
- MERCOSUR (Grupo Mercado Común del Sur). 1996b. *Substandard 3.7.18 – Requisitos fitosanitarios generales y específicos para Solanum tuberosum (papa, batata)*. MERCOSUL/GMC/RES N°. 113/96. Available at <http://www.mercosur.int/innovaportal/v/527/2/innova.front/resoluciones> (last accessed 20 November 2015).

- MERCOSUR** (Grupo Mercado Común del Sur). 2002. *Estándar 3.7. Requisitos fitosanitarios armonizados por categoría de riesgo para el ingreso de productos vegetales, 2ª Revisión*. MERCOSUR/GMC/RES. N° 52/02. Available at <http://www.mercosur.int/innovaportal/v/527/2/innova.front/resoluciones> (last accessed 20 November 2015).
- MGAP/MEF** (Ministerio de Ganadería, Agricultura y Pesca/Ministerio de Economía y Finanzas). 2007. *Decreto N°. 004/1141/2007. Suspéndese la exigencia de tratamiento antibrotante, prevista en el artículo 27 del Decreto No. 929/988, para los envíos de papa consumo procedentes de los países del MERCOSUR*. Montevideo, MGAP/MEF, Dirección General de Servicios Agrícolas.
- NAPPO** (North American Plant Protection Organization). 2008. *RSPM 32. Pest risk assessment for planting as quarantine pests*. Ottawa, NAPPO.
- NAPPO** (North American Plant Protection Organization). 2012. *RSPM 31. General guidelines for pathway risk analysis*. Available at: <http://www.napso.org/files/8614/3895/4794/RSPM31-01-06-12-e.pdf> (last accessed 3 December 2015).
- NAPPO** (North American Plant Protection Organization). 2014. *RSPM 40. Principles of pest risk management for the import of commodities*. Available at <http://napso.org/files/8314/3889/6413/RSPM40-e.pdf> (last accessed 20 November 2015).
- New Zealand MAF** (Ministry of Agriculture and Forestry). 2002a. *Import risk analysis of Cordyline and Dracaena cut flowers and branches*. Biosecurity Authority, Wellington, MAF.
- New Zealand MAF** (Ministry of Agriculture and Forestry). 2002b. *MAF Biosecurity Authority (Plants) Standard 152.09.05. Clearance of fresh cut flowers and foliage*. Wellington, MAF.
- SAG** (Servicio Agrícola y Ganadero). 2013. *Establece requisitos fitosanitarios de importación a frutos frescos para consume de palta (Persea americana) variedad Hass, procedentes de los departamentos del Perú que se indican, deroga Resolución N°. 2.948 de 2010 y aprueba plan de trabajo*. Available at [http://members.wto.org/crnattachments/2013/sps/CHL/13\\_0905\\_00\\_s.pdf](http://members.wto.org/crnattachments/2013/sps/CHL/13_0905_00_s.pdf) (last accessed 18 November 2015).
- SAGPA** (Secretaría de Agricultura, Ganadería, Pesca y Alimentos). 2008. *Resolución 506/2008. Derógase el punto 3.6 del Anexo de la Resolución N° 641/04, relacionada con el "Reglamento Técnico para la Fijación de Identidad y Calidad de Papa" destinada al consumo en fresco para la exportación, importación y mercado interno*. Available at: <http://viejaweb.senasa.gov.ar/contenido.php?to=n&in=1094&io=8922> (last accessed 20 November 2015).
- SASA** (Science and Advice for Scottish Agriculture). 2010. *Plant health licensing guidance notes*. Available at <http://www.sasa.gov.uk/publications?keys=&tid=261> (last accessed 19 February 2016).
- SC**. 2013. *Report of the Standards Committee meeting, Rome, 18–22 November 2013*. Rome, IPPC, FAO.
- SC**. 2014. *Report of the Standards Committee meeting, Rome, 5–9 May 2014*. Rome, IPPC, FAO.
- SPG**. 2013. *Report of the Strategic Planning Group meeting, Rome, 8–11 October 2013*. Rome, IPPC, FAO.
- SPG**. 2014. *Diversion from intended use. White paper for the IPPC Strategic Planning Group (SPG)*. Prepared by Canada and the United States of America. 05\_SPG2014\_Oct. Rome, IPPC, FAO.
- UC IPM** (University of California Statewide Integrated Pest Management Program). 2008. *Avocado pathogen: avocado sunblotch viroid (ASBVD)*. University of California Pest Management Guidelines. Available at <http://www.ipm.ucdavis.edu/PMG/r8101011.html> (last accessed 13 December 2015).
- WTO** (World Trade Organization). 1994. *The WTO Agreement on the Application of Sanitary and Phytosanitary Measures*. Geneva, WTO.
- WTO** (World Trade Organization). 1999. *Japan – Measures affecting agricultural products. Report of the appellate body*. WT/DS76/AB/R. Available at [https://www.wto.org/english/tratop\\_e/dispu\\_e/542d.pdf](https://www.wto.org/english/tratop_e/dispu_e/542d.pdf) (last accessed 23 February 2016).
- WTO** (World Trade Organization). 2015a. *Japan – Agricultural products II. Dispute settlement case study DS76. In WTO dispute settlement: one page case summaries*. Geneva, WTO, p. 35.

- WTO (World Trade Organization). 2015b. *Notification of emergency measures. Committee on Sanitary and Phytosanitary Measures*. G/SPS/N/CRI/160, 5 May 2015. Available at [https://www.wto.org/english/news\\_e/news15\\_e/sps\\_15jul15\\_e.htm](https://www.wto.org/english/news_e/news15_e/sps_15jul15_e.htm) (last accessed 23 February 2016).
- WTO (World Trade Organization). 2015c. *Notification of emergency measures. Addendum. Committee on Sanitary and Phytosanitary Measures*. G/SPS/N/CRI/160Add.1, 12 May 2015. Available at [https://www.wto.org/english/news\\_e/news15\\_e/sps\\_15jul15\\_e.htm](https://www.wto.org/english/news_e/news15_e/sps_15jul15_e.htm) (last accessed 23 February 2016).
- WTO (World Trade Organization). 2015d. *Notification. Committee on Sanitary and Phytosanitary Measures*. G/SPS/N/CRI/162, 13 July 2015. Available at [https://www.wto.org/english/news\\_e/news15\\_e/sps\\_15jul15\\_e.htm](https://www.wto.org/english/news_e/news15_e/sps_15jul15_e.htm) (last accessed 23 February 2016).
- WTO (World Trade Organization). 2015e. Costa Rica's temporary suspension of the issuing of phytosanitary import certificates for avocados – Concerns of Guatemala and Mexico. *In* Summary of the meeting of 15–16 July 2015, Committee on Sanitary and Phytosanitary Measures. G/SPS/R/79. Geneva, WTO, pp. 10–11.

#### ISPMs cited

- ISPM 1. 2006. *Phytosanitary principles for the protection of plants and the application of phytosanitary measures in international trade*.
- ISPM 2. 2007. *Framework for pest risk analysis*.
- ISPM 4. 2011. *Requirements for the establishment of pest free areas*.
- ISPM 5. 2015. *Glossary of phytosanitary terms*.
- ISPM 11. 2013. *Pest risk analysis for quarantine pests*.
- ISPM 12. 2001. *Phytosanitary certificates*.
- ISPM 14. 2002. *The use of integrated measures in a systems approach for pest risk management*.
- ISPM 16. 2002. *Regulated non-quarantine pests: concept and application*.
- ISPM 20. 2004. *Guidelines for a phytosanitary import regulatory system*.
- ISPM 21. 2004. *Pest risk analysis for regulated non-quarantine pests*.
- ISPM 23. 2005. *Guidelines for inspection*.
- ISPM 25. 2006. *Consignments in transit*.
- ISPM 32. 2009. *Categorization of commodities according to their pest risk*.
- ISPM 36. 2012. *Integrated measures for plants for planting*.

#### Other references cited only in the glossary of terms

- CEPM. 1999. *Report of the Sixth Meeting of the Committee of Experts on Phytosanitary Measures, Rome, 17–21 May 1999*. Rome, IPPC, FAO.
- CPM. 2009. *Report of the Fourth Session of the Commission on Phytosanitary Measures, Rome, 30 March–3 April 2009*. Rome, IPPC, FAO.
- CPM. 2013. *Report of the Eighth Session of the Commission on Phytosanitary Measures, Rome, 8–12 April 2013*. Rome, IPPC, FAO.
- CPM. 2015. *Report of the Tenth Session of the Commission on Phytosanitary Measures, Rome, 16–20 March 2015*. Rome, IPPC, FAO.
- FAO. 1990. FAO glossary of phytosanitary terms. *FAO Plant Protection Bulletin*, 38(1): 5–23. [current equivalent: ISPM 5].
- ICPM. 2001. *Report of the Third Interim Commission on Phytosanitary Measures, Rome, 2–6 April 2001*. Rome, IPPC, FAO.

## 7 Annexes

### Annex 1. Questionnaire

#### IPPC Diversion from Intended Use questionnaire

1. Are you aware of any unauthorized diversion from intended use occurring in your country?

*Note: if you answered yes to question 1, please continue with the following questions. If you answered no to question 1, we thank you for participating in this questionnaire.*

2. To your knowledge, which countries are/were concerned or established phytosanitary import requirements for more than one declared intended use of a commodity or affected by the issue(s)?

3. Were a pest risk analysis and phytosanitary import requirements provided to the exporting country national plant protection organization?

4. In what way does the issue(s) impact your trade?

5. Please provide additional information of the case (this will remain confidential)

6. Contact information

Name:

Organization:

Country:

E-mail address:

## Annex 2. Case study template

### Questions for identified cases or to guide interviews on potential cases (not used in survey)

#### Section 1. Experience of diversion from intended use:

1. Are you aware of any diversion from intended use cases, as described above?

- a. Yes
- b. No

If you answered yes to question 1, please move on to section 2. If you answered no to question 1 then please move on to section 4.

2. Are you aware of any measures imposed on imports because of concern about diversion from intended use?

- a. Yes
- b. No

If yes, were the measures supported by the PRA or other analysis? Was there prohibition or managed risk?

#### Section 2. Background of case studies:

1. Please provide a brief description of the problem(s):

2. When was the issue(s) first identified?

3. In which country was the issue(s) first identified?

4. To your knowledge, which other countries have been affected by the issue(s)?

5. What was the country of origin of this issue(s), or source of trade?

6. To your knowledge, is the issue(s):

- a. Regional?
- b. Global?

7. How do you think/know the issue(s) will impact pest risk?

8. Did you experience or deal with this problem(s) personally or did you hear about this problem(s) through a colleague or other medium?

- a. Experienced or dealt with problem personally
- b. Heard about problem through colleague
- c. Other (please describe):

If you answered a.) Experienced or dealt with problem personally, for question 8, please move on to section 4. If you answered b.) Heard about problem through colleague, or c.) Other, please move on to section 3.



**Section 3. Contact details of colleague:**

If you heard about the diversion from intended use case study through a colleague or other source, then we would like to get in contact with them as well. This person may also have knowledge of this problem, or may have experienced similar problems themselves. For this reason, we would like you to provide a few contact details for this person, or people, so that we can follow this up.

1. Contact name:
2. Organization:
3. Country (of work):
4. E-mail:
5. Telephone number:

**Section 4. Your details (optional):**

1. Have you participated in these plant health activities? (Mark all applicable)
  - a. Policy
  - b. PRA or import evaluation
  - c. Ports and inspections
  - d. Domestic surveillance
  - e. Export facilitation or certification
  - f. Private sector packaging, shipping, commodity treatment, etc.
  - g. Private sector production
2. How long have you participated in the activity/activities above?
  - a. Less than 5 years
  - b. 5 to 10 years
  - c. Over 10 years
  - d. Over 20 years

### Annex 3. Scenarios of pest risk in trade

Table A1. Pest risk and various compliance scenarios in trade (ending with DFIU)

Type of product	PRA status	Pest risk management	Pest risk
Plant products* of negligible pest risk [*In this Table, the term “plant products” refers to any plants, plant products and other regulated articles which may pose a phytosanitary risk.]	Initiation finds no pest risk	Not required: no associated pest in production area or categorized as processed to the point of not being subject to infestation	Negligible
Plant products with known pest associations	PRA completed	Pest risk management done as planned	Negligible – compliance achieved and no interception upon import
Plant products with known pest associations	PRA completed	Pest risk management not carried out as indicated	Non-compliance, possible pest risk
Plant products with known pest associations	PRA completed	Pest risk management carried out as indicated, but does not achieve appropriate level of protection	Pest risk management requires review, possible pest risk
Plant products with unknown pest associations or organism not known to be pest	PRA completed but does not include unknown pest	Pest risk management done according to predicted risk	Possible pest risk arising due to unanticipated pest, requires PRA review
Plant products with known pest associations, posing the assessed risk under prevailing conditions (can even be altered depending on volume of trade)	PRA completed for those conditions (usual climate, existing range of hosts in area)	Pest risk management done but prevailing conditions change	PRA requires review, possible pest risk
Plant products not as represented (product or origin is not as recorded) – counterfeit or fraudulent trade	PRA done but on other product or for place with different pest status	Pest risk management done but not for actual risk	Possible pest risk
Plant products imported informally or illicitly (smuggling)	PRA not done	Pest risk management not done	Possible pest risk

Type of product	PRA status	Pest risk management	Pest risk
Plant products imported through unregulated or unmonitored pathways (food aid, military, passenger traffic) – DFU or use not anticipated by PRA	PRA might be done, but probably not specific Regional PRA covers most likely scenario of use but does not include minimal uses	Pest risk management may be done, but probably not specific	Possible pest risk
Plant product is found to be non-compliant (for various reasons)	PRA done for pest risk for declared use	NPPO allows other use such as processing, or allows change from planting material to consumption	Is an authorized diversion and the pest risk has been considered by the authorities and is manageable
Plant products with known pest association, DFU <ul style="list-style-type: none"> <li>planted not consumed</li> <li>planted outside, not contained</li> <li>distributed fresh, not processed</li> <li>put into waste stream in unexpected time, manner (e.g. immediately disposed of, added to garden compost not municipal waste)</li> <li>conditions of import not met in terms of place or time (e.g. not within transit corridor, enters European Union protected zone, outside acceptable season/time of year)</li> <li>sent to location outside endangered area of PRA</li> </ul>	PRA done but for indicated use or destination	Pest risk management done for the use or destination indicated, but not for what actually happened	Possible pest risk

DFU, diversion from intended use; NPPO, national plant protection organization; PRA, pest risk analysis



## IPPC

The International Plant Protection Convention (IPPC) is an international plant health agreement that aims to protect cultivated and wild plants by preventing the introduction and spread of pests. International travel and trade are greater than ever before. As people and commodities move around the world, organisms that present risks to plants travel with them.

### Organization

- The number of contracting party signatories to the Convention exceeds 181.
- Each contracting party has a National Plant Protection Organization (NPPO) and an Official IPPC contact point.
- 10 Regional Plant Protection Organizations (RPPOs) have been established to coordinate NPPOs in various regions of the world.
- IPPC liaises with relevant international organizations to help build regional and national capacities.
- The Secretariat is provided by the Food and Agriculture Organization of the United Nations (FAO-UN).



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