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FINAL REPORT OF A MISSION
CARRIED OUT IN
ISRAEL
FROM 24 AUGUST TO 28 AUGUST 2008
IN ORDER TO
EVALUATE THE SYSTEM OF OFFICIAL CONTROLS AND THE
CERTIFICATION OF PLANTS FOR EXPORT TO THE EUROPEAN UNION

*Please note that factual errors in the draft report have been corrected in response to comments by the
Competent Authority.*

Executive Summary

This report describes the outcome of a follow up mission carried out in Israel from 24 to 28 August 2008. The objectives were to evaluate the actions taken in response to the recommendations made in the report DG(SANCO)/7599/2005 of a mission carried out in 2005 in order to evaluate the system of official controls and the certification of plants for export to the European Union (EU). Particular emphasis was given to those regulated plants that are hosts of Bemisia tabaci or Liriomyza spp. In addition, the certification system for Rhynchosporium ferrugineus and the measures taken for Potato tuber spindle viroid (PSTVd) were also assessed.

The number of interceptions of consignments from Israel carried out at the EU points of entry has decreased significantly, but remains high, and new quarantine harmful organisms, like PSTVd, have been found. The system of official controls for exports is comprehensive. However 2 recommendations of the previous mission were not fully addressed. First, in certain situations, the pre export checks of cut flowers do not ensure that all the plants are free from quarantine harmful organisms, since the finding of one quarantine harmful organism does not imply the rejection of the whole lot intended for export. Second, the frequency of inspections and the control measures taken in the places of production of plants intended for planting are not fully in line with the EU requirements. Control measures for Rhynchosporium ferrugineus are adequate. There is a good follow up of the interceptions notified by the EU, but the certification for PSTVd is not supported by systematic testing in laboratories on all the potential host plants.

Recommendations are made in this report, to address the shortcomings found.

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ABBREVIATIONS & SPECIAL TERMS USED IN THE REPORT

Abbreviation	Explanation
ELISA	Enzyme Linked Immuno Sorbent Assay
EU	European Union
FVO	Food and Veterinary Office
ISO	International Standards Organisation
MARD	Ministry of Agriculture and Rural Development
MS	Member State of the EU
NPPO	National Plant Protection Organisation
PCR	Polymerase Chain Reaction
PepMV	<i>Pepino mosaic virus</i>
PPIS	Plant Protection and Insepection Services
PSTVd	<i>Potato spindle tuber viroid</i>
TRSV	<i>Tomato ringspot virus</i>

1 INTRODUCTION

The mission took place in Israel from 24 to 28 August 2008.

The inspection team comprised 2 inspectors from the Food and Veterinary Office (FVO) plus 1 National Expert from a Member State (MS) and was accompanied throughout the mission by representatives from the National Plant Protection Organisation (NPPO), which is the Plant Protection and Inspection Service (PPIS).

A questionnaire was sent to the NPPO in advance of the mission, which was completed and set back to the FVO, assisting the planning and conduct of the mission.

An opening meeting was held on 24 August with the NPPO, in Bet Dagan during which the mission objectives, itinerary, and the standard reporting and follow-up procedures were confirmed, and additional information required for the satisfactory completion of the mission was requested.

2 OBJECTIVES OF THE MISSION

This was a follow up mission. The objective was to evaluate the actions taken in response to the recommendations made in the report DG(SANCO/7599/2005 for a mission carried out from 10 to 14 April 2005 in order to evaluate the system of official controls and the certification of plants for export to the European Union (EU). Particular emphasis was given to those regulated plants that are hosts of *Bemisia tabaci* and *Liriomyza* spp. This report can be found at: http://ec.europa.eu/food/fvo/act_getPDF.cfm?PDF_ID=4931

In addition, the certification system for *Rhynchophorus ferrugineus* and the measures taken for the *Potato tuber spindle viroid* (PSTVd) were also assessed.

In pursuit of these objectives, the following sites were visited:

NPPO visits		Comments
	1	PPIS Headquarters– Bet Dagan
Laboratory visits		
	1	PPIS Laboratories, Bet Dagan
Plant health control sites		
Inspection sites (immediately before export)	2	Export centre, transit station near Ben-Gurion airport
Inspection sites (place of production)	3	Herbaceous ornamentals plants (2), palm trees
Seed company	1	
Growers	2	Cut flowers, fresh herbs

Also, the following definitions were used:

Definitions related to the Council Directive 2000/29/EC

‘**Harmful organisms**’: species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products (Article 2 (1) (e) of Council Directive 2000/29/EC);

‘**Quarantine harmful organisms**’: harmful organisms to plants listed in the Annexes I to IV of Council Directive 2000/29/EC or subject to other regulation of the European Union;

‘**Regulated cut flowers**’: flowers species which must be subject to a plant health inspection in Israel before being permitted to enter the community and which are listed in Annex V part B of Council Directive 2000/29/EC;

‘**Viruses transmitted by *Bemisia tabaci***’: all viruses transmitted by *Bemisia tabaci*, including those listed in Annex IAI of the Council Directive 2000/29/EC;

Definitions according to the International Standard for Phytosanitary Measures No 5 (ISPM) of the Food and Agriculture Organisation (FAO) - Glossary of phytosanitary terms (2007)

‘**Free from (of a consignment, field or place of production)**’: without pests (or a specific pest) in number or quantities that can be detected by the application of phytosanitary procedures;

‘**Pests**’: species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products, therefore synonym of ‘**Harmful organisms**’;

‘**Place of production**’: any premises or collection of fields operated as a single production or farming unit;

Definitions according to the ISPM No 8 of the FAO - Determination of pest status in an

area (1998)

‘Transient: actionable, under eradication’: the pest has been detected as an isolated population which may survive into the immediate future and, without phytosanitary measures for eradication, may establish. Appropriate phytosanitary measures have been applied for its eradication;

Other definitions

‘Fresh herbs’: plants used fresh to flavour food or beverage.

3 LEGAL BASIS FOR THE MISSION

The mission was carried out under the general provisions of Community legislation and in agreement with the NPPO.

4 BACKGROUND

Except where stated otherwise, data quoted in this report were provided by PPIS.

4.1 TRADE INFORMATION

4.1.1 *Cut flowers*

Table 1 - Israeli exports of cut flowers to the EU. Source Eurostat.

Year	Total (tonnes)	Percentage of total imports of the EU	Rank among suppliers countries	Imports per Member States (tonnes and % of total Israel exports to the EU)			
				The Netherlands	Belgium	Germany	Rest of the MS
2005	22 452	12	3	18 049 (80%)	2 114 (9%)	1 424 (6%)	865 (4%)
2006	21 100	10	3	14 291 (68%)	4 187 (20%)	1 728 (8%)	894 (4%)
2007	19 921	9	4	11 658 (59%)	5 818 (29%)	1 468 (7%)	977 (5%)

Israeli exports have decreased between 2005 and 2007, however Israel remains a major supplier of cut flowers to the EU.

More than 95% of the cut flowers were imported through 3 MS. Most were imported into The Netherlands, but this quantity has decreased from 2005 to 2007, while the quantity imported through Belgium has increased.

According to the PPIS, in 2007, 1 052 million stems were exported to the EU (92% of the

total Israel exports of cut flowers), among which 336 million were stems of regulated cut flowers. The main species of regulated cut flowers were *Gypsophila* (133 million of stems), *Solidago* (71.3 million), *Dianthus* (43.4 million), *Rosa* (30.9 million) , *Eustoma* also called *Lisianthus* (25.8 million) and *Trachelium* (13.3 million).

4.1.2 Fresh herbs

Table 3 - Fresh herbs sent from Israel to the EU (Tonnes).

Year	<i>Ocimum basilicum</i> (Basil)	Total fresh herbs
2005	1 943	7 674
2006	2 475	8 902
2007	2 650	8 801

Both the quantities of total fresh herbs and basil have increased. The most significant importing MS of fresh herbs is the United Kingdom followed by France and Germany.

4.1.3 Herbaceous plants intended for planting

Between 350 and 400 million units of plants and propagation material were exported from Israel in 2007, three quarters of such exports were to the EU.

Table 3 - Israeli exports of herbaceous plants intended for planting to the EU.

Year	Total (millions of units)	Imports per Member States (millions of units and % of total Israel exports to the EU)			
		The Netherlands	Germany	United Kingdom	Rest of the MS
2005	261.3	92.3 (35%)	65.2 (25%)	41.9 (16%)	61.9 (24%)
2006	270.2	94.2 (35%)	59.6 (22%)	45.2 (17%)	71.2(26%)
2007	305.6	103.5 (34%)	86.4 (28%)	50.6 (17%)	65.1 (21%)

The exports have increased from 2005 to 2007. Almost three quarters of the export units are to 3 MS.

From the beginning of 2006 to June 2008, the main species exported were *Pelargonium* (26.9 % of the exports), *Petunia* (20.8%), *Calibrachoa* (9.1%) and *Fuschia* (5.1%). *Petunia* and *Calibrachoa* represent more than 99% of the exported plants owing

to the Solanaceae family. 24 000 units of *Solanum Jasminoides* were exported in 2007.

4.1.4 Seeds

In 2007, 215.6 tonnes of seeds were exported by Israel to the EU, including 4.4 tonnes of tomato seeds.

4.2 INTERCEPTIONS

Table 4 - Number of consignments from Israel intercepted by the MS.

Source European Commission (Europhyt).

Year	Total number of interceptions (all reasons)	Interceptions with harmful organisms				
		Total	Cut flowers	Basil	Plants and plant propagation material*	Seeds**
2005	456	307	247	41	10	0
2006	320	219	152	48	17	0
2007	261	183	120	33	20	3

*plants with roots or cuttings excluding Bonsai plants and plant tissue culture ** true botanical seeds only

The total number of interceptions and the number of interceptions with harmful organisms have decreased by more than 40% between 2005 and 2007. The decline of the number of interceptions with harmful organisms on cut flowers is significant, while the equivalent number in relation to Basil has decreased slightly. The interceptions on plants and propagation material has increased during the same period. Consignments of seeds were intercepted for the first time in 2007.

Table 5 - Main intercepted quarantine harmful organisms.

Source European Commission (Europhyt).

Year	<i>Bemisia tabaci</i>	<i>Liriomyza</i> spp	<i>Helicoverpa armigera</i> *	<i>Spodoptera littoralis</i>	PSTVd
2005	180	64	19	14	0
2006	122	62	8	11	1
2007	98	34	16	10	9

*Synonym: *Heliothis armigera*

The number of interceptions for the presence of *Bemisia tabaci* has sharply decreased

since 2005, but *Bemisia tabaci* remains the harmful organism found in more than half of the cases. Some new quarantine harmful organisms have been found by the Member States since 2005 (see also part 5.5.5.):

-*Potato spindle tuber viroid* (PSTVd), the 1st case was found in December 2006, 9 cases in 2007, 2 cases in the 8 first months of 2008. The plants concerned were *Solanum jasminoides*, *Cestrum* spp, *Petunia* and tomato seeds;

-*Tobacco ringspot virus* (TRSV), 3 cases were found in the 8 first months of 2008 on *Impatiens* cuttings and cut flowers;

-*Pepino mosaic virus* (PepMV), 4 cases were found in the 8 first months of 2008 on tomato seeds.

Table 6 - Main plant species of cut flowers and fresh herbs intercepted with harmful organisms in 2007. Source European Commission (Europhyt).

	<i>Bemisia tabaci</i>	<i>Liriomyza</i> sp	others	Total	Ratio: number of stems exported/ number of interceptions (millions)
<i>Gypsophila</i>	10	18	8	36	3.7
<i>Ocimum basilicum</i>	24	3	6	33	N/A
<i>Solidago</i>	24	1	3	28	2.7
<i>Lisianthus</i>	7	4	14	23	1.1
<i>Trachelium</i>	13	0	0	14	1.2
<i>Aster</i>	6	2	1	9	1.1
<i>Rosa</i>	3	0	6	9	3.4
<i>Dianthus</i>	0	0	5	5	8.7

Presence of *Bemisia tabaci* is the main reason for intercepting *Solidago*, Basil, *Trachelium*, and *Aster*. *Liriomyza*, is the main cause for intercepting *Gypsophila*. The causes for intercepting *Lisianthus*, *Rosa*, and *Dianthus* are diverse. For cut flowers, the frequency of interceptions in relation to the number of stems exported (see 4.1.1.) was highest for *Lisianthus*, *Aster*, and *Trachelium*. The frequency was lower for *Solidago*, *Rosa* and *Gypsophila*, the lowest being observed for *Dianthus*.

4.3 PHYTOSANITARY STATUS

According to the NPPO, *Bemisia tabaci*, *Liriomyza huidobrensis*, *Liriomyza sativae* and *Liriomyza trifolii* are widespread throughout the country. *Liriomyza bryoniae* has also been detected. *Cowpea mild mottle virus* (low prevalence), *Squash leaf curl virus*, *Tomato yellow leaf curl Virus*, *Watermelon chlorotic stunt virus* and *Euphorbia mosaic virus* are viruses transmitted by *Bemisia tabaci* which are present in Israel.

For the reasons described in the part 5.5.5.1., the NPPO considers PSTVd's status in Israel as transient, occurring only on ornamentals plants of *Solanum jasminoides* and *Cestrum* spp., under eradication.

Rhynchophorus ferrugineus is present in 2 small areas bordering with Jordan. The insect has been only observed in traps (less than 30 individuals caught per year since 2005).

5 MAIN FINDINGS

5.1 LEGISLATION

As in 2005, the NPPO operates on the basis of three Laws and associated regulations in relation to phytosanitary issues. The Plant Protection Law of 1956 provides, among other, for measures for eradication programs and quarantine areas. The Seed Law of 1956 regulates the quality and health standards for propagation material, the inspection of places of production and the certification of propagation material. The Inspection of Plants and Plant Products for Export Law of 1954 regulates, among others, the quality and phytosanitary control of plants and plant products and provides for mandatory inspection of plant consignments before export.

This last Law covers all the provisions relating to the quality and phytosanitary control of plants and plants products for export.

5.2 ORGANISATIONAL ASPECTS OF PLANT HEALTH CONTROL

5.2.1 National Plant Protection Organisation

The PPIS, which is a part of the Ministry of Agriculture and Rural Development (MARD), is the National Plant Protection Organisation in accordance with the International Plant Protection Convention. For plant health, it is the enforcement authority of MARD in the following areas:

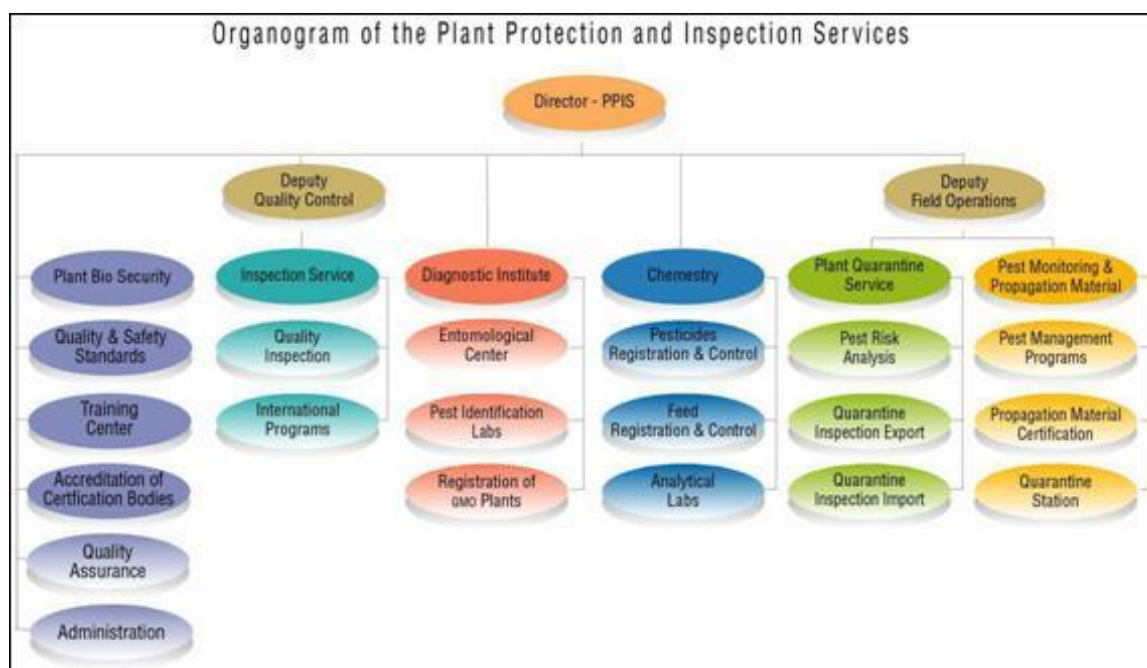
- prevention of introduction and establishment of new plant pests
- plant pests detection and identification
- inspection and certification of plants propagation material
- inspection of fresh agricultural produce for export

The PPIS works in close collaboration with 2 other divisions of MARD; the Agricultural Research Organisation, responsible for conducting research, and the Extension Services, responsible for the training of farmers and provision of advice.

5.2.2 Structure of PPIS

The structure of the PPIS is shown in figure 1 below.

Figure 1: structure of the PPIS



The Inspection Service carries out the official controls and pre-export checks of cut flowers and fresh herbs. The Plant Quarantine Service carries out the inspection of plants for planting at places of production for export purposes. The Propagation Material Certification unit carries out the inspections for seeds production at places of production.

The Diagnostic Institute is in charge of official testing. It includes laboratories for the identification of nematodes, fungi, bacteria, viruses, viroids, insects and genetically modified organisms.

-The mission team visited the Diagnostic Institute. It is well equipped to carry out export related analysis and the staff met by the team were familiar with the testing methods, including molecular biology, and phytosanitary procedures.

Another task of the Diagnostic Institute is to participate in the approval of the private laboratories wishing to carry out official testing.

The PPIS delegates such testing provided the applicant is accredited under the ISO 17025 standard and commits itself to work under the supervision of PPIS. The applicant laboratory must have also competent staff, adequate facilities and apply relevant and validated methods.

These conditions are audited on site once a year by internal and external experts designated by PPIS. In addition, during this audit, some samples are taken and double tested by the Diagnostic Institute and the results of the 2 laboratories are compared. Approval is given for one year. At the time of the mission, 5 laboratories were approved. These laboratories are allowed to carry out official testing only if they do not have interest in the results.

In case of an unclear result in a test the approved laboratory has to ask confirmation to

the Diagnostic Institute as the official reference laboratory. In the specific case of seeds, the reference laboratory is the Official Seed Testing Laboratory, which is not a part of PPIS.

Table 7 below shows that the number of export related analyses for viruses and viroids has decreased since 2005, while the equivalent number for nematodes remained stable with other type of analyses increasing. However, in 2007, most analyses were performed for viruses (1 726) and viroids (694). In the category "others" the analyses were carried out almost exclusively for fungi. No viruses transmitted by *Bemisia tabaci* were detected. Positive results for viroids were mainly PSTVd.

Table 7 - Export related analyses.

	Viruses and viroids		Nematodes		Others*		Total
	Number of tests	Positive results	Number of tests	Positive results	Number of tests	Positive results	Number of tests
2005	3 738	100	344	62	88	22	4 155
2006	2 914	21	386	42	231	24	3 521
2007	2 420	67	375	39	279	26	3 073

***Fungi, bacteria, phytoplasma.**

5.2.3 Quality Assurance system

PPIS is accredited under ISO 9000 standard. This standard ensures an equal level of inspection among all the units in charge of inspection. Audits are carried out yearly by an external accreditation body. In addition internal assessments are organised as a part of the quality management system adopted by PPIS in 2003. As a consequence, several Standard Operating Procedures (SOPs) have been issued, some of them being specifically dedicated to inspections for export.

The laboratory of PPIS is accredited under ISO 17025 standard and in a same way, audits are carried out yearly by an external accreditation body.

5.2.4 Human resources and training

The PPIS employed a total of 211 staff at the date of the mission (187 in 2005) and among them 101 have a university degree (90 in 2005). Inspectors must be authorised to carry out specific duties. Within the Inspection Service there are 7 authorised inspectors for cut flowers, and 16 authorised inspectors for fresh herbs. Within the Quarantine Service there are 25 authorised inspectors. Authorisation is only granted following a probation period (2 months for inspectors of inspection service) and the completion of a training course and passing the relevant examination. One inspector can be authorised for several tasks.

One person within the PPIS is in charge of organising trainings (see figure 1). Each member of the staff is required to undertake trainings which are registered in a personal

sheet. For instance courses on pest and diseases are organised regularly every 3 to 4 years, where the concerned inspectors are obliged to attend.

At the date of the mission 9 one day trainings had been organised, 5 of them on Quality management for either heads of departments or inspectors, one on phytosanitary certificates and 3 on export (potatoes, grapes and geophytes).

5.2.5 Communication

The PPIS has established an internet site (www.ppiseng.moag.gov.il/PpisEng/) for use by the public. PPIS communicates to the growers mainly by passing the information through their export companies, or by participating in the meetings, organised by these companies, for the growers. In addition, a newsletter with phytosanitary information is sent regularly to all the nurseries. Finally, the inspections in the inspection stations or at the places of production provide the opportunity for frequent and punctual exchanges between inspectors and representatives of export companies and growers.

5.2.6 Financial resources and fees

The sources of funding for PPIS are the government budget and the collected fees. The PPIS charges for all activities related to export, including the analysis of samples.

5.3 PRODUCERS, EXPORTERS AND TRADE ORGANISATIONS

A substantial proportion of Israel's horticultural production is exported.

The large majority of growers of plants and plant products export through few export companies, e.g. 91% of the exports of basil were handled by 4 companies in 2007. The largest exporter of fresh agricultural produce is a partnership between the Government (50%), growers represented by the production and marketing boards (25%) and a cooperative (25%). In 2007 it exported 49% of the basil and 53% of the total fresh herbs. This exporter has a quality control staff in charge of internal inspections of the products to be exported, the results of which are available to the PPIS inspectors but do not take over the official inspection.

5.4 EXPORT CERTIFICATION AND TRACEABILITY

5.4.1 Registration and approval

The PPIS is responsible for the registration of producers of plants for planting and the approval of transit stations or packing house where official inspections of cut flowers or fresh herbs are carried out. All exporters are also required to register with the PPIS.

Places of production or other establishments exporting plants for planting to the EU have to be approved by PPIS. For this purpose, places of production have to fulfil some technical conditions and to register regularly relevant information on an official book provided by PPIS (e.g. production area map, list of species, internal inspections, laboratory tests results, treatments). All the approved establishments are registered on an

official list of PPIS.

5.4.2 Traceability of consignments

Each producer of regulated host plants which are exported must establish a system to allow tracing back to the place and to the unit of production. For consignments of cut flowers and fresh herbs, this is achieved through the use of bar-codes. Each box is labelled by the producer.

Tracing the journey between the place of inspection and the point of exit is made using the delivery note (see 5.5.1. and 5.5.2.).

5.5 PRE-EXPORT CHECKS

5.5.1 Cut flowers

Recommendation (1) of the previous mission was "*When a harmful organism is detected in a lot during the pre-export inspection, the whole lot should be considered as not being free from the harmful organism, and prohibited from export to the EU*".

Recommendation (3) was "*The procedure for inspecting the lots of cut flowers and fresh herbs immediately prior to export is reviewed to ensure that an appropriate probability of finding any harmful organisms present is applied*".

In its response, the PPIS declared that the system of inspection will be changed in order to take in account such recommendations, in particular a whole lot will be considered as not being free in case one harmful organism is found and the sampling method will be reviewed.

As in 2005, pre-export checks are carried out immediately before export.

For the producers intending to export through an export company, which is a common situation, checks are carried out at the transit station managed by the company, where the lots are prepared for export and inspected also for other purposes. For the producers intending to export directly, which are few, the pre export checks are carried out at the point of exit.

A lot is defined as the plants of the same plant species produced by one producer and exported the same day within the same consignment. On the arrival of the goods, the inspector verifies whether or not the producer is on the "black list" (see below). This has a consequence on the minimum number of boxes to be checked per lot. If the producer is not on the "black list" the number of boxes to be inspected per lot is as follow:

- from 1 to 7 boxes in the lot: 1 box minimum inspected
- from 7 to 25 boxes in the lot: 2 boxes minimum inspected
- more than 25 boxes in the lot: 3 boxes minimum inspected

If the grower is on the "black list" these ratios are doubled (so 2, 4 and 7 boxes respectively). The inspector indicates the number of boxes to be checked on the lot to the representative of the exporter, and a label is put on the boxes to be inspected. In each box 10 bunches are checked, the total number of bunches in a box varying from 10 to 40.

In 2005 the sampling ratio per lot was different : 2% of the boxes, with a minimum of 2, and 4 bunches examined per box. This ratio was not doubled in case the producer was on the "black list".

If no quarantine harmful organisms are found, the lot is cleared for export. If one quarantine harmful organism is found in bunches taken from one box, this box is removed, and a sample twice as large is inspected (with the same intensity). If no further quarantine harmful organisms are found, the lot, minus the infested box, is cleared for export. If however, further quarantine harmful organisms are found in this lot, the whole lot is blocked and the producer is put on the "black list" for the 4 consecutive consignments. The producer will be removed from the "black list" only if no quarantine harmful organism is found. An Extension Service officer is in charge to give advice to the farmer in order to rectify the situation. The boxes refused for export are specifically labelled and a rejection note is issued. They can be sold on the local market.

In 2005 in case one quarantine harmful organism was found on a lot the decision was the same : the box only was blocked.

The inspector registers the characteristics of the lot (producer and plant species), the number of boxes inspected and the result of the inspection on an inspection report. At the end of an inspection day, the exporter submits a global delivery note describing the lots to be exported (e.g. producer, plant species, and total number of boxes in the lot). The inspector compares the data of the delivery note with the data registered on the inspection report. If the data fits, he/she stamps the delivery note, and, by phone, informs his/her colleague at the point of exit that the phytosanitary inspection was successful for all the lots mentioned.

-The mission team attended an inspection in a transit station. The plants were observed on a table, well lit and equipped with a large magnifying glass. A board was beside the table, indicating the plant species to be inspected before export to the EU, and with photos of the main pests. The inspectors took bunches from marked boxes and tapped them above a white sheet in order to verify the presence of insects. Bunches were examined under the magnifying glass. Two caterpillars were observed in two different boxes. As the producer accepted to block the consignment, the lot was refused, and he was put on the "black list". If he had not accepted, the PPIS stated that inspector would have held the lot until identification by the laboratory. The inspectors had the necessary equipment to take samples and confirmed their attendance at frequent technical trainings and meetings within the cut flower inspection team and/or with inspectors from other fields.

-The mission team visited a farm producing cut flowers for export, the main plant species being *Solidago*. Plants were grown under screen houses. The responsible person stated that during the growing period, phytosanitary checks are carried out by an agronomist on the plots at least once a week. In addition, the workers and the heads of team are instructed to survey and report the possible presence of pests. Pesticides are sprayed every 3 to 5 days. After harvest and before packing, a systematic internal inspection is carried out by a member of the farm's staff specialised in this area. The sampling ratio is 10 stems for 1 500. This inspection is carried out on a table well lit and with a large magnifying glass. If an infestation considered as high is observed the lot is not prepared for export. If an infestation considered as low is observed all the stems of

the lot are verified, and the infested leaves are removed. An internal traceability system allows tracing back the plot of origin and a special treatment is executed. The responsible person insisted on the fact that it is in the interest of the producer to maintain a high quality standard on his production, a possible refusal or interception resulting in a waste of time and money.

5.5.2 *Fresh herbs*

Recommendation (1) and (3) of the previous mission concerned also the fresh herbs (see 5.5.1.)

As in 2005, pre-export checks are carried out immediately before export.

As with cut flowers, checks are mainly carried out within the transit stations. The process of inspection is broadly similar to that for cut flowers.

However, the sampling for inspection is 2% minimum of the boxes of a lot. This is determined by the inspector by assessing the delivery note provided by the exporter (one delivery note per producer). In practice the PPIS stated that this ratio is currently exceeded. The entire content of the box is examined (the boxes for fresh herbs are smaller than those for cut flowers).

Also, if one quarantine harmful organism is found in the lot, the whole lot is blocked and the subsequent lots of the producer will be sampled with a higher ratio. If this situation is repeated for the same producer within 4 successive export checks, during which the sampling ratio is doubled, the exporter will be put on the 'black list'. As the consequence, the producer will not have the possibility to export the production from the concerned unit for 2 weeks. After this period, an agronomist of the farm will have to certify, via a report to PPIS, that the unit of production is free before the suspension is lifted.

In 2005 the sampling ratio per lot was the same 2% of the boxes, with the entire content of the box examined. But differently from 2008, in case one quarantine harmful organism was found, only the box concerned was blocked and the sampling was not increased in the following inspections. The 'black list' system provided a 2 weeks blocking period only if an inspection on site revealed a significant level of infestation.

Finally, if the inspection is successful the inspector stamps the delivery note. A report of the inspection results is recorded.

-The mission team attended an inspection in a transit station, where the lots are prepared in the same way than for cut flowers. The table for the plants examination had the same equipment as the table for the cut flowers inspection. There was a book containing the description of the main pests. The inspector had the delivery note available with the number of boxes mentioned. He examined the whole content of a marked box (indicating the necessity of inspection by PPIS) for a combined quality and phytosanitary check. The plants were taped above a white sheet and the leaves were observed, using the magnifying glass.

-The examination of a delivery note relating to an inspection carried out on 3 August 2008 on 13 lots from the same producer, showed that 29 boxes on 632 were inspected, each lot being inspected with a minimum ratio of 2.8%.

-The mission team visited a farm producing fresh herbs for export, in

particular basil. The production was exported by the largest exporter. Plants were grown under screen houses with double doors. The responsible person stated that during the growing period, internal phytosanitary checks are carried out on a regular basis by an agronomist on the plots. If a harmful organisms or suspicious symptoms are observed, a specific treatment is applied. Systematic inspections are carried out also after harvest, during packaging (every hour) and unloading (5 cartons per lot). If a harmful organism is detected, the plants or the boxes are rejected, the packing or unloading process is stopped and additional checks are carried out. If at least 3 harmful organisms are spotted after examination on a ratio basis of 10%, the whole lot is rejected for export. The mission team was told that the largest exporter imposed that the agronomist in attendance had followed technical training before being allowed to perform inspections. The previous week, the producer attended a meeting organised by this exporter in which the PPIS participated.

5.5.3 Plants intended for planting

5.5.3.1 Herbaceous plants

Recommendation (2) of the previous mission asked that, before export, the places of production of plants for planting have been inspected at the frequency provided for in the relevant items of the Annex IV Part A Section I to Council Directive 2000/29/EC/EC and found free from the relevant harmful organism(s), at least for the period of time specified in those items.

As in 2005, export control for herbaceous plants for planting is mainly based on systematic inspections at the place of production. Nowadays such inspections are further reinforced by random checks immediately prior to export.

For export purposes, the place of production is defined as being an individual screen house, glasshouse or poly-tunnel.

All the registered producers are officially inspected at least every 45 days. If no quarantine harmful organism is found, a report is issued, a copy of which is sent to the headquarters and the establishment is maintained on the list of approved establishments for export. If a single quarantine harmful organism is found in one location, the producer has to apply treatment and the exports from the concerned place of production are suspended. Exports may resume if no quarantine harmful organism is found during a follow up official inspection organised within one week. If a quarantine harmful organism is found in more than one location in the place of production, exports are suspended for 9 weeks. During this period, weekly official inspections are carried out by PPIS. Export may resume after 9 weeks only if no quarantine harmful organism is found during these inspections.

In 2005, the frequency of the inspections at the places of production and the decision scheme in case of finding of quarantine harmful organism was the same, except that the 9 weeks suspension period was applied only in case 3 or more quarantine harmful organism was found.

There is also a "special quality system" of inspection. The main differences are that the inspections are carried out every 6 weeks and that systematic tests are periodically made

in laboratory. Also, immediately on the finding of a single specified quarantine harmful organism, a 6 weeks suspension of exports is imposed and may be lifted only under the conditions described for the normal inspection regime. Finally, a special label is put on the package before export.

Tests for the potato cyst nematodes (*Globodera pallida* and *Globodera rostochiensis*) are regularly carried out on soils in addition to a general nematodes test..

In addition checks are carried out at the point of exit. These checks do not concern consignments of plants grown under the "special quality system". During this check, the inspector verifies if the establishment is approved for export and carry out an examination of the contents of some boxes sampled at random. The target is to check 2% of the boxes per grower and per destination. In practice, in July 2008, 239 cartons on 4984 destined for the EU were inspected i.e. 4.8%. If a quarantine harmful organism is found, the consignment is refused for export and the sampling will be increased on the consignments sent by the same grower. There is also a possibility of warning in case a non quarantine harmful organism is found in low quantities, or if there is a documentary problem.

-The mission team met the inspector in charge of the inspection at the point of exit close to Ben Gurion Airport. She confirmed the procedure, in particular the fact that a finding of a quarantine harmful organism involves the refusal to export. In this situation, she immediately warns her colleague in charge of signing the phytosanitary certificate, whose office is close by. The inspection team saw the daily report she sent to the headquarters. It showed that on 25 August 2008, more than 7% of the boxes exported this day were inspected.

-The inspection team visited a nursery having ceased production of plants species of the Solanaceae family after interception of PSTVd on *Solanum jasminoides* (see 4. 2), but continuing exports of unrooted cutting of various other species, in particular *Pelargonium*. The plants were grown under screen houses with double doors and disinfection foot bath. The responsible person declared that the cooperation with PPIS is good, through meetings, newsletter (see 5.2.5) and direct contact during inspections. The official book as described in part 5.4.1 showed that the inspections were carried out monthly. During his/her visit, the inspector observes all the production and draw up a report which is registered in a central database. If a quarantine harmful organism is found the headquarters is immediately informed by phone and e-mail. In addition, the responsible person stated that the *Pelargonium* plants are regularly tested for bacteria and viruses (3 series of sampling within 6 month) in a private laboratory approved by PPIS. Copy of the results is sent to the PPIS.

-The inspection team visited a second nursery producing cuttings for export of a wide range of plant species among them *Petunia* and *Calibrachoa*. The plants were grown under screen houses with double doors and disinfection foot bath. The responsible person stated that plants are fortnightly checked for plant health by an agronomist. Furthermore, workers attend meetings about pests in order to spot their possible presence. All the plants are regularly virus tested and are produced with hygiene precaution: staff wear robes and gloves.

Petunia and *Calibrachoa* are all produced under the "special quality system" regardless

the destination for export (The EU or the United States). This requires a separate management of the production (special screen houses and staff, higher hygiene precautions). A minimum of 3 series of analysis are carried out at random by laboratories approved by PPIS, during the production process of cuttings for export. The nuclear stock (coming from meristem cultivation) is tested for a minimum of 15 viruses and includes a general screening for viroids, the following stages of productions are tested for a minimum of 5 viruses.

5.5.3.2 Palm trees

PPIS has put in place a network of 1 500 pheromone traps in order to monitor the presence of *Rhynchophorus ferrugineus*. These traps are distributed in locations mainly close to the Jordan border, and within all the nurseries exporting palm trees. They are referenced by Global Positioning System and visible on maps using a Geographic Information System. Every 2 weeks specialised inspectors check the traps and send the results to a central database.

In case the insect is caught, the surrounding trees are inspected, additional traps are distributed in the area, and insecticides are applied, both by irrigation and sprays. If trees are found infected, they are treated by insecticide injection inside the trunk.

Producers within the area (see 4.3) are not allowed either to export or to move palm tree to the rest of the territory of Israel.

-The mission team visited a palm tree nursery which has been regularly exporting susceptible plants as defined by Article (b) of Commission Decision 2007/365/EC. The PPIS stated that the procedure for export is the same as that for herbaceous plants. The responsible person confirmed that an inspection is carried out by PPIS every 6 weeks, during which the official book is checked, and all the plants observed. The inspection team saw pheromone traps in a field. The responsible persons declared that these traps are checked every 2 weeks by PPIS. He was well aware about *Rhynchophorus ferrugineus*, and stated that insecticides are applied on a regular basis.

5.5.4 Seeds

Official control of seeds for export is based on inspection in fields and analyses in laboratory. Production of tomato seeds is inspected 4 times by PPIS during the growing period. Sampling for laboratory is only taken on symptoms at this stage. Just before export, samples of tomato seeds are taken and after acid extraction treatment, they are analysed for various pests including *Xanthomonas campestris* pv *vesicatoria*, *Clavibacter michiganensis* subsp. *michiganensis* and PepMV, but excluding PSTVd, the sampling rate for testing PepMV by Enzyme Linked Immuno-sorbent Assay (ELISA) is 12 replicates of 250 seeds for each consignment. A traceability system permits tracing the origin of the consignment and the place of production.

PPIS stated that tomato seeds imported to Israel have to be tested for 13 pests before release, these tests include PSTVd.

-The mission team visited a seed company, which confirmed the procedure. In particular, the responsible persons confirmed that the official tests are carried out by an approved laboratory, even though the company have its own laboratory. The company

produces seeds through contractor growers in Israel and in foreign countries. In Israel, the production is supervised by the company by weekly inspections on the spot and several types of tests are carried out in the internal laboratory on the seeds produced, including pests. In foreign countries, the production is also supervised on site and on import to Israel, the seeds are submitted to the series of tests as described above.

5.5.5 Follow up of interceptions

The PPIS made 648 internal interceptions in 2007 (429 on cut flowers, 145 on fresh herbs, 74 on plants intended for planting). Follow up is described in parts 5.5.1, 5.5.2, 5.5.3.

When an interception by an EU Member State is notified to PPIS, the relevant "black list" system is applied to the producer. The PPIS provided special information about the follow up of interceptions of newly found quarantine harmful organisms (see part 4.2.).

5.5.5.1 PSTVd

PPIS stated that after being informed of interceptions on *Cestrum* spp. and *Solanum jasminoides*, exports of such plants were halted. The PPIS carried out a trace back of the intercepted consignments which allowed localising the sources of infection. Following the findings, eradication measures were imposed, including destruction of all infected stocks. At time of the mission, any exports of these plants were prohibited unless officially tested and found to be free from PSTVd.

-The mission team visited a nursery where PSTVd was found (see part 5.5.3.). The producer confirmed the eradication and measures imposed by the PPIS. All *Solanum jasminoides* and other plants of the Solanaceae family were destroyed. The producer has ceased to produce PSTVd host plants.

PPIS also stated that national surveys for the presence of PSTVd had been carried out on a variety of host plants. In 2007, a total of 65 samples out of 694 analysed were positive. All samples of host plants other than *Solanum jasminoides* and *Cestrum* spp. were negative. PSTVd has been found in three exporting nurseries and several sellers for the domestic market. Measures were imposed to eradicate any findings and recently, the nuclear stocks of host plants have been renewed.

After being informed of PSTVd interceptions on tomato seeds, PPIS has organised in all cases testing of seeds of the same production origin by at least 2 laboratories including the Official Seeds Testing Laboratory. All the results were negative.

PPIS stated that PSTVd has never been found on potatoes or seeds produced in Israel. A vast majority of mother plants related to infection originated from Member States. Therefore, PPIS believed that import is the main risk of PSTVd introduction and current phytosanitary procedures include laboratory testing of all imported host plants. PPIS considered the PSTVd as transient on the territory of Israel (see part 4.3).

-The mission team visited the PPIS laboratory that carries out, among others, analysis for the presence of PSTVd and found that there were good facilities and equipment available for this. Samples of fresh plants are divided into sub-samples of 25 leaves each and subsequently analysed. Methods used are based on Polymerase Chain Reaction (PCR). The laboratory staff stated that they had just implemented some

methods based on EPPO diagnostic protocols and that their experience with PSTVd detection is limited.

PPIS stated that, at present, no consignments of *Brugmansia* spp. and *Solanum jasminoides* plants are exported to the EU.

5.5.5.2 TRSV

After being informed of interceptions on *Impatiens* cuttings and cut flowers, PPIS has organised, in all cases, testing of plants of the same production origin by 2 laboratories. All the results were negative.

5.5.5.3 PepPV

After being informed of interceptions on tomato seeds, PPIS has organised, in all cases, testing of seeds of the same production origin, often by more than one laboratory including the Official Seeds Testing Laboratory. All the results were negative.

5.5.6 Issue of phytosanitary certificates

Phytosanitary certificates may only be issued by specialised and authorised inspectors of PPIS located at point of exit. The exporter is in charge of preparing the document, which is verified and signed by the inspector if no problem is observed.

The PPIS inspector is informed by his/her colleagues of the success of the phytosanitary inspection using different ways:

- for cut flowers, by phone and the stamped delivery note
- for plants for planting, through the list of the approved nurseries for export, and by direct contact in case a check is performed just before export
- for seeds, by a stamped delivery note

-The mission team visited the point of exit close to Ben Gurion airport and meet the inspectors in charge of issuing the phytosanitary certificates. They confirmed the procedure and had available the list of the approved nurseries. They demonstrated their ability to check the additional declarations for each product by using a central data base through an intranet. The database is permanently updated by the headquarters.

6 CONCLUSIONS

6.1 NATIONAL PLANT PROTECTION ORGANISATION

As it was already observed in 2005, there is a clear and well-defined structure to the plant health service in Israel, with a clear division of responsibilities. The number staff available was adequate to perform the export related tasks. Accreditation under ISO standards facilitate harmonising the checks for export and ensure the reliability of the laboratories.

6.2 EXPORT CERTIFICATION AND TRACEABILITY

The registration system permits to list the establishments to be controlled (transit station and place of production of plants for planting). The traceability system permits the possibility of tracing back the exact origin of the export.

6.3 PRE-EXPORT CHECKS

6.3.1 *Cut flowers*

The certification of cut flowers is based on an official check of each lot, carried out immediately prior to export.

Compared to the situation in 2005 where 2% sampling with a minimum of 2 boxes was carried out, the number of boxes to be sampled per lot has been increased but only when the number of boxes in the lot is above 25 boxes. However, 10 bunches are inspected in a box rather than 4 in 2005. Also the "black list" system allows doubling the sampling ratio. Finally, the official inspection is preceded, in practice, with internal inspections especially at packing stage before export within the place of production. For these reasons, and despite the fact that the sampling ratio is not based on the standard PM 3/65 (2005) of the European and Mediterranean Plant Protection Organisation, on sampling of consignments for visual phytosanitary inspection, the actual probability for finding a quarantine harmful organism before export is acceptable, and the recommendation (3) of the previous mission addressed.

As in 2005, the PPIS permits the export of a lot in which one quarantine harmful organism has been found (minus the infested box), without verifying all the remaining boxes. But these boxes are suspicious because of the first finding. The consequence is that it is not certain that all the plants exported are "pest free from" quarantine harmful organisms, as defined by ISPM 5, and the mission team considers that recommendation (1) is not satisfactorily addressed for cut flowers.

6.3.2 *Fresh herbs*

The certification of fresh herbs is also based on a pre-export check carried out immediately prior to export.

The sampling ratio is 2% of the boxes per lot. In practice, this ratio is currently higher on a routine basis. This fact, conjugated with internal inspections especially at packing stage before export within the place of production, leads the mission team to consider, in the same way as for cut flowers, that the actual probability for finding a quarantine harmful organism before export is acceptable and the recommendation (3) of the previous mission addressed.

Contrary to 2005, a lot is refused for export as soon one quarantine harmful organism is found in one box. For that reason the recommendation (1) is addressed for fresh herbs.

6.3.3 *Plants for planting*

Plants for planting are exported on the basis of the place of production being officially inspected and found freed from harmful organisms.

However, and without changes since 2005, inspections are carried out every 45 days in the frame of the normal procedure, which is not in accordance with items 32.1(b), 32.3 (b) and 45.1 (b) of Annex IV Part A Section I to Council Directive 2000/29/EC. In particular, items 32.1 (b) and 32.3 (b), which relate to certain *Liriomyza* spp., require that checks be carried out ‘*at least monthly during the three months prior to export*’. Item 45.1 (b), which relates to *Bemisia tabaci*, requires that checks be carried out ‘*at least once each three weeks during the nine weeks prior to export*’.

In the event that a single *Bemisia tabaci* has been found in one location in a place of production, plants for planting are still be exported, subject to a treatment being carried out and no further harmful organisms being found as a result of an inspection carried out within one week. This is not in accordance with either items 45.1 (b) or 45.1 (c) of Annex IV Part A Section I to Council Directive 2000/29/EC, which both specify that the place of production shall have been found free from *Bemisia tabaci* for the nine weeks prior to export.

For these reasons the mission team considers that recommendation (2) of the previous mission is not satisfactorily addressed.

The measures taken to ban export and internal movement of plant trees from the area where the insect was found, the monitoring network and the control system of the places of production exporting susceptible species to *Rhynchophorus ferrugineus* ensure compliance with the requirements of Commission Decision 2007/365/EC.

6.3.4 Seeds

The general certification system of tomato seeds ensures compliance with the EU requirements. The special case of PSTVd is discussed in part 6.3.5.

6.3.5 Follow up of interceptions

The total number of interceptions has decreased significantly since 2005. However it remains high and finding of new quarantine harmful organisms have occurred in the meantime. This concerns PSTVd, TRSV and PepMV.

In response to the interceptions of PSTVd notified by the EU, Israel has taken measures in order to verify the quality of the lots of origin by testing, and to comply with the requirements of Commission Decision 2007/410/EC. However, on plants other than *Brugmansia* spp and *Solanum jasminoides*, and in particular on tomato seeds, the certification for PSTVd is based on visual inspections in production field which are not sufficient since it is rare that this harmful organism shows symptoms on such plants. Therefore, despite the fact that the finding of PSTVd on tomato seeds by a Member State of the EU was not confirmed by the follow up analysis organised by PPIS, a laboratory analysis of all host plants intended for export to the EU, which would allow for the detection of latent infection, is deemed necessary.

In response to internal interceptions, the systems of black listing for high-risk cut

flowers, fresh herbs and plants for planting producers are beneficial since they allow strengthening controls, and if necessary to ban exports.

6.3.6 Issue of phytosanitary certificate

The phytosanitary certificate is validated by the PPIS after accurate verification that the lot is eligible for export.

6.4 OVERALL CONCLUSION

The number of interceptions of consignments from Israel carried out at the EU points of entry has decreased significantly, but remains high, and new quarantine harmful organisms, like PSTVd, have been found. The system of official controls for exports is comprehensive. However 2 recommendations of the previous mission were not fully addressed. First, in certain situations, the pre export checks of cut flowers do not ensure that all the plants are free from quarantine harmful organisms, since the finding of one quarantine harmful organism does not imply the rejection of the whole lot intended for export. Second, the frequency of inspections and the control measures taken in the places of production of plants intended for planting are not fully in line with the EU requirements. Control measures for *Rhynchophorus ferrugineus* are adequate. There is a good follow up of the interceptions notified by the EU, but the certification for PSTVd is not supported by systematic testing in laboratories on all the potential host plants.

7 CLOSING MEETING

A closing meeting was held on 28 August 2008 with the representatives of the PPIS. At this meeting, main findings and preliminary conclusions of the mission were presented by the inspection team. The PPIS did not indicate any major disagreement with these. During the meeting, additional information requested by the mission team was provided by the PPIS.

8 RECOMMENDATIONS

The National Plant Protection Organisation in Israel is recommended to ensure that, before issuing the phytosanitary certificate for export in accordance with Article 13a (3) and 13a (4) of Council Directive 2000/29/EC:

No.	Recommendation
1	when one prohibited harmful organism is detected in one box of a cut flower lot during the pre-export inspection, either the whole lot is verified bunch by bunch to ensure that only the boxes found free from the said harmful organism are exported, or, alternatively, the whole lot is prohibited for export to the EU. This is to comply with Article 13a (3), Article 13a (4)(b) and Annex IV Part A Section I (items 32.2 and item 45.2) of Council Directive 2000/29/EC ;
2	as it was recommended in the report of the mission of 2005, the places of

No.	Recommendation
	production of plants for planting, including those exported in accordance with items 32.1(b), 32.3 (b) and 45.1 (b) or (c) of Annex IV Part A Section I to Council Directive 2000/29/EC, have been inspected at the frequency laid down in the relevant items and found free from the relevant harmful organism(s), at least for the period of time specified in those items;
3	the planting material of host plants of PSTVd being exported to the EU, in particular tomato seeds, is free from this pathogen in compliance with Annex I part A section I (d) of Council Directive 2000/29/EC.

The competent authority's response to the recommendations can be found at:

http://ec.europa.eu/food/fvo/ap/ap_israel_7872_2008.pdf

ANNEX 1 - LIST OF LEGISLATION REFERENCED IN THE REPORT

Reference	OJ Ref.	Detail
Directive 2000/29/EC	OJ L 169, 10.7.2000, p. 1–112	Council Directive 2000/29/EC of 8 May 2000 on protective measures against the introduction into the Community of organisms harmful to plants or plant products and against their spread within the Community
Decision 2007/365/EC	OJ L 139, 31.5.2007, p. 24–27	2007/365/EC: Commission Decision of 25 May 2007 on emergency measures to prevent the introduction into and the spread within the Community of <i>Rhynchophorus ferrugineus</i> (Olivier)
Decision 2007/410/EC	OJ L 155, 15.6.2007, p. 71–73	2007/410/EC: Commission Decision of 12 June 2007 on measures to prevent the introduction into and the spread within the Community of Potato spindle tuber viroid