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HEALTH AND CONSUMERS DIRECTORATE-GENERAL

Directorate F - Food and Veterinary Office

DG(SANCO) 2012-6317 - MR FINAL

FINAL REPORT OF AN AUDIT

CARRIED OUT IN

THAILAND

FROM 09 TO 18 OCTOBER 2012

IN ORDER TO EVALUATE THE SYSTEM OF OFFICIAL CONTROLS FOR THE EXPORT OF PLANTS TO THE EUROPEAN UNION

In response to information provided by the Competent Authority, any factual error noted in the draft report has been corrected; any clarification appears in the form of a footnote.

Executive Summary

This report describes the outcome of an audit carried out by the Food and Veterinary Office in Thailand, from 9 to 18 October 2012.

The objective of the audit was to evaluate the official controls and the export certification system for plants and plant products regulated by Council Directive 2000/29/EC, originating in Thailand and exported to the European Union. In particular the following points were addressed:

- *the special control scheme for export of vegetables to the EU (EL scheme).*
- *the general export control of plants, in particular for those commodities that continue to be intercepted in the European Union due to the presence of harmful organisms.*
- *the inspection certification scheme for orchid cut flowers for passengers proposed by Thailand.*

The organisation of the plant health controls in Thailand, is in line with the international standards and, for exports to the EU, EU legislation. There is a very good cooperation with the producers and especially the exporters.

The National Plant Protection Organisation has taken extensive measures to address the high number of interceptions and to comply with EU requirements. The export procedures and pre-export inspections have both been strengthened since the previous audit. The EL scheme provides considerable additional assurance that the specific high-risk commodities included in the scheme and exported to the EU, are free from harmful organisms. All recommendations from the previous audit have been addressed.

The proposed inspection certification scheme for orchid cut flowers for passengers is an extension of that already in place for commercial exports of such flowers. The proposed use of a label in lieu of individual phytosanitary certificates, should not result in an increased risk.

Since no significant shortcomings were identified by the audit team, no recommendations are made in this report.

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Abbreviations and definitions used in this report

Abbreviation	Explanation
Commodity	A type of plant, plant product or other article being moved for trade or other purpose.
Consignment	Defined in ISPM 5 as a quantity of plants, plant products and/or other articles being moved from one country to another and covered, when required, by a single Phytosanitary certificate
DOA	Department of Agriculture (Ministry of agriculture and Cooperatives)
DOAE	Department of Agriculture Extension
EL scheme	Special control scheme for the export of vegetables to the EU – Establishment list
EU	European Union
EUROPHYT	European Network of Plant Health Information Systems – in this report it refers only to the component constituting the EU's notification system for interceptions for plant health reasons
FVO	Food and Veterinary Office
GAP	Good Agricultural Practice
GMP	Good Manufacturing Practice
HACCP	Hazard analysis and critical control points
Harmful organism	Defined in Article 2 (e) of Council Directive 2000/29/EC as any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products.
IPPC	International Plant Protection Convention
ISPM	International Standards for Phytosanitary Measures
kg	Kilogramme
Lot	Defined in ISPM 5 as a unit of a single commodity, identifiable by its homogeneity of composition, origin, etc., forming part of a consignment
NPPO	National Plant Protection Organisation
OAE	Office of Agriculture Economics
OAR	Office of Agriculture Regulation (of the DOA)
OARD	Office of Agriculture Research and Development (of the DOA)
PC	Phytosanitary certificate
PPRDO	Plant Protection Research and Development Office (of the DOA)
PSCO	Plant Standard and Certification Office (of the DOA)
Tephritidae	Family of insects commonly called "fruit flies"
Thysanoptera	Order of insect commonly called "thrips"

1 Introduction

This audit took place in Thailand from 9 to 18 October 2012 and was undertaken as part of the Food and Veterinary Office's (FVO) planned audit programme.

The FVO team consisted of two auditors from the FVO and one National Expert from a Member State of the European Union (EU). Representatives from the National Plant Protection Organisation (NPPO), the Department of Agriculture (DOA), accompanied the FVO team during the audit.

An opening meeting was held on 9 October 2012 at the headquarters of the DOA in Bangkok during which, the objectives, scope and itinerary for the audit were confirmed by the FVO team and additional information, necessary for the conduct of the audit, was requested.

2 Objectives

The objective of the audit was to evaluate the official controls and the export certification system for plants regulated by Council Directive 2000/29/EC, originating in Thailand and exported to the EU. In particular the following points were addressed:

- the special scheme for vegetables intended for export to the EU – Establishment list (EL scheme) introduced by the NPPO;
- the general export controls for other plants, in particular for those commodities that continue to be intercepted in the EU due to the presence of harmful organisms;
- the inspection certification scheme for orchid cut flowers for passengers proposed by Thailand.

The table below lists the sites visited and the meetings held in order to achieve these objectives:

Meetings/visits		**No.**	**Comments**
Competent Authorities	Central	1	Department of Agriculture (DOA), Bangkok
	Regional	2	OARD 4 and OARD 5
	Points of exit	1	OAR, Suvarnabhumi airport - Bangkok
	Laboratories	1	PPRDO, Bangkok
Plant health control sites			
Production sites		5	eggplants, herbs, chilli, aquatic plants and ornamental plants
Exporters and pack houses		3	herbs, vegetables, orchid cut flowers

3 Legal Basis

The audit was carried out under the mandate of Articles 21 and 27a of Council Directive 2000/29/EC, and with the agreement of the NPPO of Thailand.

3.1 Relevant EU legislation

Council Directive 2000/29/EC provides for protective measures against the introduction into and spread within the EU organisms harmful to plants or plants products. The legal reference for this Directive and for other relevant EU legislation, is listed in Annex I.

References to EU legislation are to the latest amended version, where applicable.

3.2 International Standards

Article X (4) of the International Plant Protection Convention (IPPC) establishes that contracting parties should take into account, as appropriate, international standards when undertaking activities related to the Convention. The International Standards for Phytosanitary Measures (ISPM) issued by the IPPC thus provide a basis, in addition to the EU import requirements, for evaluating official export controls in contracting parties. Thailand has been a contracting party to the IPPC since 1952.

The full text of all adopted ISPMs is available on the International Phytosanitary Portal of the International Plant Protection Convention (https://www.ippc.int/). The ISPMs that were of particular relevance to this audit are listed in Annex II.

4 Background

This was the fourth audit carried out by the FVO to Thailand on plant health issues. The first audit took place in 2006, with subsequent audits in 2008 and 2010 (Ref: DG(SANCO) 2010-8702). The reports of the audits are available on the FVO website: http://ec.europa.eu/food/fvo/index_en.cfm

After several years of high numbers of interceptions of harmful organisms on consignments originating in Thailand, the EU notified Thailand on 17 February 2011, of the introduction of a limit of five interceptions per year for the five most high risk commodities – *Ocimum* sp. (basil), *Momordica* sp. (bitter gourd), *Solanum melongena* (eggplant), *Capsicum* sp. (chilli peppers) and *Eryngium foetidum* (stinking).

The NPPO informed the European Commission that it had decided to temporarily suspend, from 14 March 2011, the exports of these commodities to the EU. Subsequently, the NPPO informed the Commission that a special scheme for the export of vegetables to the EU or Establishment List (EL scheme) had been established and exports of the five commodities would resume from 25 May 2011. The EL scheme is detailed in section 5.3.2 below.

4.1 Notifications of interceptions

Between 1 January 2010 and 30 September 2012, the EU Member States notified a total of 2,676 interceptions on consignments exported from Thailand, in EUROPHYT, the EU's notification system for plant health. As detailed in table 1 below, 873 of these interceptions were due to the presence of a harmful organism. The remainder were due mainly to non-compliant or missing phytosanitary certificates.

Table 1: Summary of notifications of interception by EU Member States 01/01/2010-30/09/12 (source EUROPHYT)

Reason	2010	2011 (14/03)	2011 (14/03-31/12)	2012 (30/09)
Presence of harmful organism	602	68	114	89
Other reasons, including documentary reasons.	1,119	130	306	248
Total	**1,721**	**198**	**420**	**337**

Since 14 March 2011 there has been one interception of *Liriomyza* sp. on basil and one interception of *Bemisia tabaci* also on basil. In the same period, the total number of interceptions of harmful organisms for commodities not included in the EL scheme was 203. Table 2 below provides details on the number of interceptions per year of the main harmful organisms.

Table 2: Summary of notifications of interception by harmful organism 01/01/2010-30/09/12 (source EUROPHYT)

Harmful organism	2010	2011	2012 (30/09)	Total
Fruit flies (Tephritidae)	171	88	53	**312**
Leaf miners (*Liriomyza* sp.)	143	30	2	**175**
Whiteflies (*Bemisia tabaci*)	122	13	6	**141**
Thrips (incl. *T. Palmi*)	102	36	17	**155**
Others	64	15	11	**90**
Total	**602**	**182**	**89**	**873**

As detailed in table 2, the most commonly intercepted harmful organisms include non-European Tephritidae ("fruit flies"), leaf miners (*Liriomyza* sp.) whiteflies (*Bemisia tabaci*) and *Thrips palmi* and other Thysanoptera (thrips). The data indicates that there has been a significant reduction in the number of interceptions of harmful organisms in the EU since 2010. Fruit flies are the most commonly intercepted harmful organism, these are found in various fresh fruits, including mangoes and guava.

4.2 Production and trade

4.2.1 Production

The annual production of the vegetables and fruits regulated by the EU is detailed in table 3 below.

Table 3: Production of EU regulated plants 2011-2012 (source: OAE and DOAE)

Commodities	2010		2011	
	hectares	tonnes	hectares	tonnes
Fruit:				
Mangoes	311,048	2,550,600	323,197	2,469,814
Guava	6,518	99,773	6,326	94,882
Citrus (Pomelo)	43,411	173,634	10,167	173,720
Passiflora	2,181	63,427	23,030	34,515
Rose apple	34,784	101,922	43,411	121,016
Sugar apple	21,928	10,398	55,231	48,003
Vegetables:				
Basil	5,035	17,223	8,427	34,821
Celery	2,800	31,678	5,570	67,774
Chilli peppers	19,890	86,866	27,853	97,157
Eggplant	8,018	147,954	14,335	95,886
Bitter gourd	1,009	9,489	1,652	12,049
Stinking	764	6,252	995	7,913
Cut flowers:				
Orchids	3,555	54,026	3,414	45,750

It should be noted that the production of vegetables (including the high risk commodities) in Thailand has, with the exception of eggplants, increased both in terms of total area planted and the quantity produced.

4.2.2 Trade

Thailand is an important exporter of plants, plant produce and planting material to the EU, as detailed in tables 4 to 6 below.

Table 4: Exports to the EU of vegetables and fruits (source: DOA)

Plants/Plant Parts	Quantity			
	2010	2011	2012 (January-August)	Unit
Vegetables:				
Chilli peppers	710,111	147,194	38,135	kg
Celery	48,251	23,553	2,339	kg
Stinking	142,372	20,295	475	kg
Bitter gourd	213,058	35,933	2,683	kg
Basil	737,958	84,583	16,699	kg
Eggplant	257,308	50,416	13,942	kg
Fruit:				
Sugar apple	20,393	9,694	3,084	kg
Citrus	133,104	114,250	100,325	kg
Mangoes	1,029,045	887,920	523,959	kg
Passiflora	91,847	99,558	44,002	kg
Guava	208,765	156,984	95,901	kg
Rose apple	36,325	18,469	7,730	kg

As detailed in the above table, there has been a a sharp reduction on the quantities exported of vegetables, including four of the five high risk commodities: *Ocimum*, *Momordica*, *Solanum melongena* and *Eryngium foetidum*. This is due to the introduction of the EL scheme, which has led to a significant reduction in the number of producers, pack houses and exporters eligible to export to the EU. Reductions were also noticed on the exports of celery, sugar apple, guava and rose apple.

Table 5: Exports to the EU of cut flowers (source: DOA)

Plants/Plant Parts	Quantity			
	2010	2011	2012 (January-August)	Unit
Cut flowers:				
Orchids	91,053,950	94,754,472	30,520,964	Stem(s)
Roses	128	97	-	kg
			100	Piece(s)
	60	-	90	Stem(s)

The audit team was informed that the significant fall in the number of orchid cut flowers exported to the EU was due mainly to the impact of the floods in 2011, which affected many producers in Thailand.

Table 6: Exports to the EU of plants for planting and seeds (source: DOA)

Plants/Plant Parts	Quantity			
	2010	2011	2012 (January-August)	Unit
Plants for planting:				
Aquatic plants	735,625	777,400	596,413	Piece (s)
	193,473	69,301	42,481	Plant (s)
Fruit plants	664	1,611	722	Plant (s)
Orchid plants	259,599	283,896	206,708	Flask (s)
	582	414	140	kg
	66,690	7,409	5,550	Piece (s)
	7,747,214	8,866,841	6,315,534	Plant (s)
Ornamental plants	2,540	1,102	3,976	Flask (s)
	373,710	86,336	86,985	kg
	4,057,214	10,981,497	8,886,083	Piece (s)
	3,674,486	3,684,325	2,260,029	Plant (s)
Seeds:				
Peppers	5,655	7,367	7,549	kg
Tomato	43,938	30,652	74,500	kg
Maize	611	517	55	kg

The data in the above table indicates that the exports of plants for planting and seeds have remained stable over the last three years. Table 7 details the total exports of the five high risk commodities to Switzerland since 2010.

Table 7: Exports under the EL scheme to Switzerland (source: DOA)

Commodities	Quantities (kg)		
	2010	2011	2012 (Jan.-Aug.)
Chilli peppers	57,795	15,338	14,481
Eggplant	175,496	46,536	22,558
Basil	95,842	17,736	3,555
Bitter gourd	36,345	7,324	106
Stinking	5,625	2,556	501
Total	**371,103**	**89,490**	**41,201**

The DOA stated that Thailand is implementing the requirements of the EL scheme for the exports to the EU, Switzerland and Norway. The data in table 7 above indicates that also for Switzerland there

has been a very significant reduction in the quantities of produce exported under the EL scheme.

5 Findings And Conclusions

5.1 Organisation of plant health controls

Legal requirements

Article 2(1)(i) of Directive 2000/29/EC establishes the requirements for a measure or statement, to be considered as 'official'. In particular, '…if it is made by representatives of the official national plant protection organisation of a third country, or, under their responsibility, by other public officers who are technically qualified and duly authorised…'

ISPM 7 describes the basic elements of the phytosanitary certification process and the requirements for a certification system to fulfil these functions.

ISPM 23 describes the objectives and requirements for inspections.

Findings

5.1.1 National Plant Protection Organisation

The DOA stated that there has been no changes to the NPPO since the previous audit. The organisational aspects of plant health control in Thailand were described in detail in the previous reports. In summary:

- the Department of Agriculture (DOA) of the Ministry of Agriculture and Cooperatives, acts as the NPPO. Four offices of the DOA have responsibilities related to plant health:
- The Office of Agricultural Regulation (OAR), within DOA, is responsible for performing the export and import check for plant health and for issuing the phytosanitary certificates;
- The Offices of Agriculture Research and Development (OARD), are responsible for carrying out research and development relating to field crops including the control of plant pests, and for the operation of the Good Agricultural Practice (GAP) programmes, including inspections and advice. They also play a role on checking the fulfilment of the EU requirements for places of production (e.g. for *Bemisia tabaci*);
- The Plant Standard and Certification Office (PSCO) is a focal point for food safety and plant health issues, with particular responsibility for SPS related issues. The PSCO developed the EL scheme. It is also responsible for registration of exporters and for performing the official inspections of pack houses in the EL scheme (see section 5.3.2 below);
- The Plant Protection Research and Development Office (PPRDO) is responsible for conducting research and development relating to the control of plant pests, and for the analysis and diagnosis of samples.

5.1.2 Legislation

The DOA stated that two new legal Notifications have been issued since the last audit and one is pending approval by the National Plant Quarantine Committee, as follows:

- Notification of Department of Agriculture on the Issuance of Phytosanitary Certificate and Health Certificate for Fresh Vegetables to the European Union, Norway, Switzerland, adopted on 8 March 2011;
- Notification of Department of Agriculture on the Issuance of Phytosanitary Certificate and

Health Certificate for Fresh Vegetables to the European Union, Norway, Switzerland Vol.2, adopted on 6 January 2012;

- Draft Notification of Department of Agriculture on Criteria, Procedures, and Conditions Regarding Application and Issuance of Phytosanitary Certificate for Fresh Produce Intended for the Export to the EU, Norway, Switzerland. The NPPO informed the FVO team that the Notification includes inter alia provisions to legally establish the sanctions to be imposed following internal or EU interceptions (see section 5.5 below). The NPPO stated that the draft notification will be considered by the Sub-Committee on Regulations, which is part of the National Plant Quarantine Committee in October 2012.

5.1.3 Resources

The DOA stated that there have been no changes to the human or financial resources of the NPPO since the previous FVO audit.

5.1.4 Guidelines and training

FVO Recommendation 10 from the previous audit - Ensure that the work of phytosanitary inspectors is subject to regular internal and external evaluation, as specified in Sections 3.1 and 6.1 of ISPM No. 7.

The FVO team was informed that an internal audit was carried out in April 2012. The main non-conformities found were administrative issues and it was proposed to improve communication. Corrective actions and observations were given by the internal audit team to the Suvarnabhumi Plant Quarantine Station. Follow up on the correction was carried out on 20 September 2012. External audit is to be scheduled.

Several guidelines and documents related to the export programme have been updated or issued since the previous FVO audit.

Extensive training has been provided to the official services and stakeholders involved in the export of plants and plant produce to the EU since the previous FVO audit. The NPPO provided a detailed list of training that had been provided This included four trainings on 'Plant Health of Plants and Plant Products Intended for the Export to the EU under TEC II (Technical Assistance Program of EC Delegation)'.

5.1.5 Laboratories and technical support

There have been no changes to the diagnostic and technical support provided by the PPRDO since the previous audit. The audit team visited the main diagnostic unit of the PPRDO in Bangkok and noted that the laboratory has adequate facilities and equipment and the staff have suitable expertise to perform the necessary analysis for plant health purposes.

The FVO team was informed that the nematologist had attended technical training in the Netherlands, and that the Nematology laboratory of Plant Pathology Research Group of PPRDO had developed an ultrasonic extraction and dripping chamber kit for the detection of endoparasitic nematodes (*Radopholus* sp. and *Hirschmanniella* sp.) in the field. This technique uses ultrasonic sound waves to enable the rapid isolation of nematodes from samples. The specialists reported that the method had been validated and was an effective and rapid alternative to more traditional techniques. The field kit has been made available to producers, exporters, and DOA inspectors.

The PPRDO specialists met, informed the FVO team that they provided training to OAR and OARD staff as well as technical support to private laboratories.

5.1.6 Communication with stakeholders

The OAR stated that they actively communicate with stakeholders, including producer and exporter associations. This was confirmed by representatives of such associations met by the FVO team. During the site visits it was apparent that the stakeholders were fully familiar with the export control system and pests of concern to the EU.

Conclusions

The organisation of the plant health controls in Thailand, including the provision of training and guidelines, is in line with the provisions of ISPM 7 and 23, and for exports to the EU, Article 2(1) of Directive 2000/29/EC.

The recommendation 10 from the previous audit has been addressed.

5.2 PLANT HEALTH STATUS

Legal requirements

Part A of Annexes I and II to Directive 2000/29/EC lists those harmful organisms whose introduction to and movement within the EU is banned. Those of particular relevance to this audit include insects from the family of the Tephritidae (non-European), *Thrips palmi* and other Thysanoptera, *Liriomiza* sp., and *Bemisia tabaci*.

Annex IV, Part A Section I establishes specific requirements for plants and plants products that must be met in order to be exported to the EU. These may vary depending on the status of the relevant harmful organism in the country of origin.

Findings

FVO Recommendation 8 from the previous audit - Ensure that plants with roots intended for planting, grown in soil in the open air and exported to the EU, such as ornamental plants, originate in the place of production known to be free from Clavibacter michiganensis *ssp.* sepedonicus*,* Globodera pallida*,* Globodera rostochiensis *and* Synchytrium endobioticum*, as required in Point 33 of Annex IV, Part A, Section I of Council Directive 2000/29/EC. This may include a laboratory examination of soil samples, taken from a field intended for such a production, at least for the presence of* Globodera pallida *and* Globodera rostochiensis*.*

The NPPO stated that the status of harmful organisms of concern to the EU has not changed significantly from the previous audit.

The DOA stated that, following the previous audit, surveys, including testing, were carried out in 2011 and 2012, to confirm the status of *Clavibacter michiganensis* ssp. *sepedonicus*, *Synchytrium endobioticum*, *Globodera pallida* and *Globodera rostochiensis*. In total, 35 potato and 3,975 tomato producers were surveyed and 35 soil samples were processed. None of these harmful organisms were detected. The NNPO stated that the status of these four organisms is considered to be 'absent, confirmed by survey'.

Conclusions

The plant health status in Thailand has not changed significantly since the last audit. The status of four EU listed organisms has been confirmed, following survey.

The recommendation 8 from the previous audit has been addressed.

5.3 EXPORT PROCEDURES

Legal requirements

Annex V, Part B to Directive 2000/29/EC lists the plants, plant products and other objects which must be subject to a plant health inspection in the country of origin or the consignor country, if originating outside the EU and accompanied by a phytosanitary certificate.

ISPM 7 describes the basic elements of the phytosanitary certification process and the requirements for a certification system to fulfil these functions.

Findings

The NPPO informed the FVO team that there have been no changes to the general export procedures, including those for registration and documentation and traceability of consignments, which were detailed in the previous FVO audit report.

As detailed below, changes have been made to the procedures for export of plants for planting. The NPPO has also introduced the EL scheme for the export of high-risk commodities and proposed a scheme for the export of orchid cut flowers by passengers.

At the time of the audit there were 131 applications for producers of controlled plants registration of which, 79 are already registered and 52 are on the process of inspection. In addition, there are 125 exporters of controlled plants registered with the DOA.

5.3.1 Plants for planting

FVO Recommendation 5 from the previous audit - Ensure that consignments of regulated articles, such as plants for planting, being exported to the European Union, are, at all stages of handling and transporting, appropriately supervised by official authorities of Thailand, as specified in Section 4.3 of ISPM No. 7. This in particular concerns the transport from the places of production to the point of exit.

The NPPO stated that since the previous audit, the frequency of official inspections carried out at producers of herbaceous plants for export to the EU, are now subject to official checks every three weeks, which target *Bemisia tabaci*.

Producers are now required to apply for an additional official check of the consignment of plants, which is carried out immediately prior to export, following application of a pesticide treatment by the producer if needed.

For air freight this check is carried out by the OAR at the airport, and is aimed at ensuring freedom from harmful organisms. Following completion of the check, the PC is issued and the consignment is loaded to air cargo by a freight forwarder.

When the export is made by sea freight the pre-export inspection can be made at the place of production. In such cases, the containers are sealed by OAR plant health inspectors and the PC is issued.

The audit team visited two exporters under the general export regime. The first was a company registered as producer and exporter of aquatic plants to the EU. The second was a producer of ornamental herbaceous plants. The FVO team examined records maintained by both producers, which confirmed that the additional checks had been carried out in line with the new procedure.

The aquatic plant producer stated that, in addition to the increased frequency of checks, the OAR had requested, as a condition of continued approval to export to the EU, that screen houses with double doors must be installed with the aim of establishing a pest free production site for *B. tabaci.*

Official samples for nematodes are also collected by the PPRDO every two months to ensure that the plants are free from nematodes. No findings of nematodes have been detected.

5.3.2 Exports under the EL scheme

The EL scheme was introduced by the NPPO in Spring 2011. The NPPO stated that the scheme is intended to address pesticides residues, microbiological contamination and quarantine pests The scheme establishes specific measures for the export of high-risk commodities to the EU, Switzerland and Norway. At the time of the audit, 22 commodities were included in the scheme, including all of those listed in Regulation 669/2009, due to either pesticide residues or microbiological contamination, as well as 16 types of the five high-risk commodities listed by the EU for plant health.

The EL scheme is described by the NPPO as 'GAP plus' – the producers, pack-houses and exporters must all be registered in the scheme. The requirements for registration are as follows:

- Producers must be registered with the OARD, and must have, or obtain, GAP certification. Producers are required to follow a farm control programme covering the use of pesticides and residues, quarantine organisms and microbiological contamination. The OARD checks the compliance with the GAP requirements, including the use of pesticides and the farm management and registers. Recommendations for corrective action are made if necessary;
- The exporters and their pack houses have to be registered by the PSCO, which carries out a pre-registration inspection of the facilities in order to verify the information provided by the exporters.

  The conditions for registration include GMP certification and implementation of a HACCP programme. pack house and exporters are required to have facilities and to perform controls at critical points, including a 5% visual examination and sampling for harmful organisms, pesticide residues and microbial contamination. The PSCO performs on-site checks at least annually, to ensure that the required conditions have been maintained. The PSCO provides training on pest identification for pack house staff.

At the time of the audit, 18 pack houses and 22 exporters had been registered by the PCSO.

Packhouses are required to have a written contract with producers. Exporters may source their produce from any registered producers; they are not required to have a written contract.

In order to confirm the implementation of the EL scheme, the FVO team visited three producers of high risk commodities for export to the EU.

- It was noted that all were GAP certified, and had received technical training and information from the OARD and exporters. There was a high level of awareness of the conditions of the scheme and the harmful organisms of concern to the EU. The pack-houses had provided harvest bins, which they also collected, to ensure that each lot was traceable back to producer level.
- In accordance with the EL scheme requirements, a producer of chilli peppers visited used pheromone trapping for fruit flies. It was indicated that if more than 6 fruit flies were present in the traps in one week, then export would stop. However during the site visit, it was noted that this level had been exceeded, but exports were still taking place.

The pest control programme varied depending on the type of commodity. It was noted that a producer of *Ocimum*, *Eryngium* and other herbs had installed screen-houses in an effort to reduce the level of pests, and the use of pesticides.

- The producers were aware of the details of the two EU interceptions of high-risk commodities that had taken place since the introduction of the scheme. The action taken following an internal or EU interception is detailed in section 5.5 below.

The audit team also visited two pack-house that also act as exporters. The first company has two pack houses and exports approximately 500 tonnes of fruits and vegetables per year to the EU. The company has contracted 200 farms and for internal management they are aggregated in groups of 15/16 farmers each. The second company processes 12 tonnes of fruits and vegetables per week, of which 80% is exported to the EU. The exporter has a contract with 14 farmers.

- The FVO team confirmed the requirements of the EL scheme, namely that both pack houses are GMP and HACCP certified. It was noted that both have introduced intensive inspections on a sample of 5% of the produce to detect the presence of pests on the critical points at arrival of the product and during the packing stage. The HACCP plan included a threshold for rejection or re-cleaning and sorting of produce if pests are found. Both pack-houses had been visited three times each year by the PSCO, for registration, approval for the export of an additional commodity or following an interception.
- The PSCO inspectors stated that they had been trained on pest identification and HACCP by the PSCO in cooperation with PPRDO.

The exporters informed the FVO team that the introduction of the EL scheme had led to a very significant reduction in the volume of exports, but the level of expertise and awareness of EU harmful organisms and import requirements throughout the production chain has increased.

Conclusion

The EL scheme is a consistent and robust scheme. There is a better awareness at the farm level about plant health problems and major efforts and investments have been made by the exporters. The scheme should be a major step towards exports of vegetables without harmful organisms.

The recommendation 5 from the previous audit has been addressed.

5.3.3 Inspection certification scheme for orchid cut flowers for EU passengers

Legal requirements

Annex V, Part B to Directive 2000/29/EC lists the plants, plant products and other objects which must be subject to a plant health inspection in the country of origin or the consignor country, if originating outside the EU and accompanied by a phytosanitary certificate.

Decision 98/109/EC authorizes Member states temporarily to take emergency measures against the dissemination of *Thrips palmi* Karny as regards Thailand. The Decision details a set of plant health measures to be fulfilled by Thailand before introduction into the EU of *Orchidaceae* cut flowers.

Findings

The NPPO has proposed to introduce an inspection and certification scheme for orchid cut flowers carried by passengers into the EU, following interceptions of *Thrips palmi* in such orchids.

The NPPO stated that orchid cut flowers exported under the scheme will be subject to the same controls and fumigation treatment as those for commercial consignments which have been in place since the EU introduced specific requirements in 1998. The export controls for commercial consignments of orchid cut flowers were covered in detail during the previous FVO audits, where no significant problems were identified.

In summary, the flowers will be subject to the same fumigation treatment using methyl bromide at a concentration of 20-24 grammes per cubic meter for 90 minutes followed by an official inspection for detection of harmful organisms at the fumigation facility or at the point of exit. The DOA proposes to issue a phytosanitary certificate for each lot, as for commercial consignments, and in addition, to provide official labels to be affixed to each box in the lot. The NPPO informed the FVO team that the format of the label may be adapted to include information deemed necessary by the

EU. The draft format showed to the FVO team included the number of the phytosanitary certificate and a statement that the flowers had been subject to fumigation by methyl bromide and found free from *Thrips palmi*.

The NPPO has established a dedicated inspection facility, situated at the entrance to the cargo terminal of Suvarnabhumi international airport. The FVO team noted that the facility has suitable equipment to carry out meticulous inspections of orchid cut flowers, as well as a range of technical literature and guidelines.

The scheme is initially proposed to be applied to orchids sold at airports, although the NPPO hopes to extend it to those sold in tourist hotels and shops in the future. The audit team met the representatives of the duty free shops selling packed orchid cut flowers for passengers. The company stated that they have 6 shops in the Suvarnabhumi airport where around 5,000 boxes of orchid cut flowers are sold to passengers each month. The representatives informed the FVO team that, following interceptions of *Thrips palmi* on orchid cut flowers in the EU, they had already requested their suppliers to ensure that the orchid cut flowers are fumigated, and that the boxes are labeled to indicate this. In addition, the duty free shop displays signs warning EU passengers that orchid cut flowers should be accompanied by a phytosanitary certificate.

The FVO team visited one producer of orchid cut flowers who supplies the duty free shops. The FVO team verified that the export controls detailed in the previous FVO audits were implemented. The treatment facilities are supervised by the OAR, which inspects and renews the registration of the fumigation facility every two years.

Conclusion

The inspection certification scheme for orchid cut flowers for passengers proposed by Thailand is the same as that, which has been applied to commercial shipments and therefore offers equivalent assurance.

5.4 Export inspections

Legal requirements

Annexes I and II Part A to Directive 2000/29/EC list those harmful organisms whose introduction to and movement within the EU is banned.

Annex V, Part B lists the plants, plant products and other objects, which must be subject to a plant health inspection in the country of origin or the consignor country, if originating outside the EU and accompanied by a phytosanitary certificate.

Annex IV, Part A Section I establishes specific requirements for plants and certain plants products, which must be met for export to the EU. In particular, points 32.1,32.2, 32.3, 34, 36.1, 36.2, 45.1 and 46.

ISPM 23 establishes guidelines for inspection. Section 1.4 describes the requirements for inspectors, including access to appropriate inspection facilities, tools and equipment.

ISPM 31 provides methodologies for sampling of consignments.

Findings

5.4.1 Plants for planting

As detailed in section 5.3.1 above, the export procedures for plants for planting require that inspections are carried out every three weeks at places producing herbaceous plants, and in all cases, immediately prior to export.

The FVO team observed demonstrations by the OARD of the three week checks. The checks focused on the detection of adult *Bemisia tabaci*, consisting of a check of the yellow traps, which producers are required to install in the growing crop, and a visual inspection of the plants. In addition, the inspector performed a detailed check of 10 plants selected from each of the 10 sectors of the greenhouse or production site.

During the visit the audit team noted that the substrate of some plant had plant debris (namely rice) and was informed by the producer that a further repotting would take place before the export.

5.4.2 Pre-export inspections

FVO Recommendation 6 from the previous audit - Ensure that the phytosanitary certificates are issued to the European Union only when it has been ascertained that the specific requirements for the export to the EU have been met (in particular that the additional specific requirements have been identified and the chosen option indicated under "Additional declaration" is in line with ISPM No. 12, Section 1.1).

The FVO team could confirm that the additional declarations in the PC were correct. The place of production EU requirements are fulfilled through OARD inspections. A final pre-export inspection is carried out by OAR inspectors. Guidelines for plant health inspectors were updated.

The export check for plant produce, including the commodities under the EL scheme, is carried out at the point of exit. In case of export by sea freight the export check may be performed inland if the exporter requests.

The audit team visited the offices of OAR at Suvarnabhumi international airport in Bangkok, where the majority of official checks of plant produce exported to the EU, are carried out. The OAR informed the FVO team that the office issues approximately 200 phytosanitary certificates each day, of which, 20-30% are addressed to EU member states. There are 18 inspectors working on a three shift pattern at the airport, who are responsible for carrying out the checks.

The OAR informed the FVO team that all EU regulated commodities, including those under the EL scheme, must be inspected prior to export. Since the previous audit, the OAR inspectors have opened all boxes in a consignment, in order to confirm that the packing list is accurate, and that there are no prohibited or non-declared regulated items in the consignment. The OAR has also revised the basic sampling table to ensure that it is consistent with the levels established in ISPM 31.

The OAR also informed the FVO team that a 'risk-list' has been introduced, which lists plant produce that is considered to be highest risk of having pests present. It is based mainly on internal and EU interceptions and has three levels of inspection intensity:

- the critical level includes 10 commodities that should be sampled at twice the level required by the basic sampling table.
- the second level includes 8 commodities that should be sampled at 1.5 the number of the units proposed by the basic sampling table.
- the third group includes 11 commodities that should be sampled at the same level as that proposed by the basic sampling table.

The OAR stated that the risk list of plants is updated every 3 or 4 months, or more often if necessary, to take account of the most recent interceptions and any emerging or potential problems. The list in force at the time of the audit included all of the commodities subject to the EL scheme at critical level. The OAR informed the team that there had not been any interceptions on these commodities, however, since new pack-houses and exporters had been registered for the scheme, the level of checks had been increased in order to detect any potential problems before export.

Mangoes and guava, which account for the majority of interceptions of non-European Tephritidae by EU Member States are also included in the critical level, and are therefore subject to high intensity of inspection.

The FVO team visited the inspection facilities in the cargo terminal at Suvarnabhumi airport and observed inspections of plant produce destined to the EU. It was noted that all of the boxes in each consignment were opened, to enable the accuracy of the exporter declaration to be checked. Samples were taken from each lot, based on the basic sampling table and the risk list.

The samples were inspected in a dedicated facility that had very good conditions (space, light, microscopes, tools, computers, technical information, etc.) for performing a proper plant health inspection. The inspectors performing the checks were fully familiar with the detection and identification of EU harmful organisms.

Conclusion

The NPPO has strengthened the system of official checks for plants and plant produce intended for export to the EU since the previous audit. Sampling is performed in line with ISPM 31 and the inspection is in line with the requirements for such material included in Annex IV Part A Section I to Directive 2000/29EC.

The high-risk commodities, including mangoes and guava are subject to higher intensity of inspection than established in ISPM 31. This risk based approach may account for the reduction in interceptions noted in section 4.1. above.

The recommendation 6 from the previous audit has been addressed.

5.5 Action taken in response to internal interceptions and notification of interceptions from the EU

Legal requirements

ISPM 7 describes the basic elements of the phytosanitary certification process and the requirements for a certification system to fulfil these functions. Section 6.1 (System review) requires that the NPPO should periodically review the effectiveness of all aspects of its export certification system and implement changes to the system if required. Section 6.2 (incident review) requires that the NPPO establish procedures for investigating reports from importing countries of non-conforming consignments covered by a phytosanitary certificate.

ISPM 23, Section 2.6 (Review of inspection systems) establishes that NPPOs should conduct periodic reviews of import and export inspection systems to validate the appropriateness of their design and to determine any course of adjustments needed to ensure that they are technically sound.

Findings

FVO Recommendation 9 from the previous audit - Ensure that following the repeated interceptions of a harmful organism, notified by the European Union's Member States, or repeated own findings during the export certification procedure, an appropriate action is taken in order to implement the necessary changes to the system, as laid down by Section 6.1 of ISPM No. 7 and Section 2.6 of ISPM No. 23.

The FVO team was informed that there is legislation in process to address the recommendation and the DOA is planning to approve a new legal Notification soon. During the final meeting Thailand was requested to inform the EU of the approval of the new legal Notification.

The DOA stated that although the sanction regime is pending the approval of the legal Notification it has been enforced informally and until now two exporters have been suspended, both on July/August 2012 due to internal findings of harmful organisms.

5.5.1 Internal interceptions

In case there is an internal interception the proposed action to be taken depends on the type of non-compliance identified, as follows:

The first situation relates to incorrect information on the application for inspection:

- 1 st occurrence - the DOA will refuse to issue a phytosanitary certificate for the entire consignment and a notice is issued;
- 2 nd occurrence – If the non-compliance occurs within 30 days of the 1st occurrence and notice, the DOA will refuse to issue any PC for the exporter for the following 30 days.

The second situation relates to quantities or weights declared incorrectly by the exporter:

- 1 st occurrence – the DOA will request the removal of all non-compliant plants from the consignment; a PC may be issued for the remainder of the consignment. A notice is issued;
- 2 nd occurrence – If the non-compliance occurs within 30 days of the 1st occurrence and notice, the DOA will refuse to issue a PC for the consignment. For future consignements from the same exporter all boxes will be opened for inspection (for 30 consecutive consignements or a period of 6 months);
- 3rd occurrence – If the non-compliance occurs within the 30 days or 6 month period, the DOA will refuse to issue a PC for the consignment. In addition, a temporary 30 day suspension for issuance of the PC is imposed from the date of the 3rd occurrence.

The third situation relates to the detection of a quarantine pest:

- 1 st occurrence – The infested/infected lot must be removed, a PC may be issued for the rest of the consignment. The exporter is notified and a recommendation for sorting and inspection is issued;
- 2 nd occurrence – If the same pest is detected within 30 days from the 1st occurrence and notice, the infested/infected lot must be removed as before and a PC may be issued for the remainder of the consignment. In addition, a temporary 15 day suspension for issuance of the PC for the specific plant involved is imposed;
- 3rd occurrence – If the same pest is detected within the 30 days from the 2nd occurrence and notice, the infested/infected lot must be removed as before and a PC may be issued for the remainder of the consignment. In addition, a temporary 30 day suspension for issuance of a PC for the specific plant is imposed.

The second pack house visited had two internal interceptions of *Bemisia tabaci* in basil last July and one interception of fruit flies in guava in the EU. After the internal interceptions the company had increased the threshold for rejection of lots to 20 insects/kg at income and carried out a more detailed inspection. The exporter also informed the FVO team that they have the intention of extending the EL scheme to fruit exports. At the moment they are sourcing the fruits through an intermediary.

The DOA stated that after this two internal interceptions and despite the fact that the legal Notification is not approved, it was decided to suspend the exporter for 15 days.

The audit team was informed by DOA that in 2012 from January to August 408 internal interceptions of plant pests took place in Suvarnabhumi airport. Most of the interceptions were made in plants or plant produce destined to Switzerland, France, United Kingdom, Germany and The Netherlands. The main intercepted commodities were: chinese chives leaf (*Allium tuberosum*),

Vietnamese coriander (*Polygonum odoratum*), aspargus (*Aspargus officinalis*), orchid cut flowers, rose apples, wildbetel leaf (*Piper sarmentosum*) and celery. The most frequent pests intercepted were: thrips, whitefies, fruit flies and leafminers.

5.5.2 EU notifications of interception

In case there is an interception in a EU importing country the proposal takes also into account three situations of non-compliance.

The first situation relates to wrong information provided by the exporter on the declaration for inspection:

- the DOA will issue a notice to the exporter. In addition, a temporary 30 day suspension for issuance of the PC takes place from the date of the notice;

The second situation related to quantities or weights declared by the exporter:

- 1 st occurrence – the DOA will issue a notice to the exporter;
- 2 nd occurrence – If the non-compliance occurs within 30 days of the 1st occurrence and notice, a temporary 30 day suspension for issuance of the PC takes place from the date of the notice.

The third situation related to the detection of a quarantine pest or other pests in the importing country:

- 1 st occurrence – the DOA will issue a notice to the exporter and a recommendation for sorting and inspection is given;
- 2 nd occurrence – The exporter is notified. If a pest is detected within 30 days from the 1st occurrence and notice, a temporary 15 day suspension takes place for issuance of the PC for the infested/infected plants;
- 3rd occurrence – If a pest is detected within the 30 days from the 2nd occurrence and notice, a temporary 30 day suspension takes place for issuance of the PC for the infested/infected plants.

The DOA stated that so far no suspensions were declared since no interceptions have occurred in the EU based on the above situations and criteria.

The FVO team visited one pack-house registered for the EL scheme that had been the subject of EU interceptions; one due to the presence of *Bemisia tabaci* on basil.

The company informed that the only reason they could find for the interception was the production in an open air farm. The contracted farmer was excluded. Now it's only exporting basil from it's own greenhouse. After the interception the company has decided to establish an additional step after washing where a 1% sample is checked, if pests are found the batch is rejected.

The exporter of aquatic plants also visited by the FVO team had recently three interceptions of *Bemisia tabaci* in Europe. After investigation by OARD, in one case, infestation was identified on weeds inside the greenhouse. In the other cases, no *Bemisia* was found during the investigation.

Conclusion

There are many internal interceptions taking place mainly at Suvarnabhumi airport. This contributes significantly to reduce the number of findings in the EU.

The new proposed sanction regime, which is already informally in force, should be approved soon. Two exporters falling under the criteria were suspended so far.

The recommendation 9 from the previous audit has been addressed.

6 Overall Conclusions

The organisation of the plant health controls in Thailand, is in line with the international standards and, for exports to the EU, EU legislation. There is a very good cooperation with the producers and especially the exporters.

The National Plant Protection Organisation has taken extensive measures to address the high number of interceptions and to comply with EU requirements. The export procedures and pre-export inspections have both been strengthened since the previous audit. The EL scheme provides considerable additional assurance that the specific high-risk commodities included in the scheme and exported to the EU, are free from harmful organisms. All recommendations from the previous audit have been addressed.

The proposed inspection certification scheme for orchid cut flowers for passengers is an extension of that already in place for commercial exports of such flowers. The proposed use of a label in lieu of individual phytosanitary certificates, should not result in an increased risk.

7 Closing Meeting

A closing meeting was held on 18 October 2012 at the headquarters of the Department of Agriculture in Bangkok, during which the main findings and conclusions of the FVO team were presented, which were provisionally accepted by the DOA.

8 Recommendations

There are no recommendations in this report.

Annex 1 - Legal References

Legal Reference	Official Journal	Title
Reg. 669/2009	OJ L 194, 25.7.2009, p. 11-21	Commission Regulation (EC) No 669/2009 of 24 July 2009 implementing Regulation (EC) No 882/2004 of the European Parliament and of the Council as regards the increased level of official controls on imports of certain feed and food of non-animal origin and amending Decision 2006/504/EC
Dec. 98/109/EC	OJ L 27, 3.2.1998, p. 47-48	98/109/EC: Commission Decision of 2 February 1998 authorising Member States temporarily to take emergency measures against the dissemination of Thrips palmi Karny as regards Thailand
Dir. 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

Annex 2 – Standards quoted in the report

International Standard	Title
ISPM N°5	International Standards for Phytosanitary Measures N°5, Glossary of phytosanitary terms, Food and Agriculture Organisation
ISPM N°7	International Standards for Phytosanitary Measures N°7, Export certification system, Food and Agriculture Organisation
ISPM N°12	International Standards for Phytosanitary Measures N°12, Guidelines for phytosanitary certificates, Food and Agriculture Organisation
ISPM N°23	International Standards for Phytosanitary Measures N°23, Guidelines for inspection, Food and Agriculture Organisation
ISPM N°31	International Standards for Phytosanitary Measures N°31, Methodologies for sampling of consignments, Food and Agriculture Organisation