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FINAL REPORT OF A MISSION

CARRIED OUT IN

COSTA RICA

FROM 07 TO 15 OCTOBER 2009

IN ORDER TO EVALUATE CONTROLS OF PESTICIDES IN FOOD OF PLANT ORIGIN
INTENDED FOR EXPORT TO THE EUROPEAN UNION

Executive Summary

The objective of the mission was to evaluate the control system in Costa Rica for pesticides in food of plant origin intended for export to the European Union (EU). It was decided to carry out a mission to Costa Rica in view of the high volume of its fruit exports to the EU and several notifications of unacceptable levels of pesticide residues in food of plant origin from Costa Rica within the EU Rapid Alert System for Food and Feed (RASFF).

Legislation is in place in Costa Rica for the authorisation and the control of the marketing and use of plant protection products (PPPs), and for pesticide maximum residue levels (MRLs). The competent authorities are clearly defined, and there is an adequate number of trained staff to carry out official controls.

A system for authorisation of PPP is in place. New legislation has been introduced in 2007 to include a risk assessment for consumers in the authorisation procedure, but no PPPs have been authorised yet under the new requirements, and there is a backlog of PPPs under evaluation. An official register of authorised PPPs is regularly up-dated on the website of the competent authority, but the database does not contain complete information on the authorised Good Agricultural Practices (GAP).

The current national MRLs are not equivalent to the EU MRLs, and several of the authorised PPPs can not be marketed and used in the EU. In the case of carbaryl and methomyl, their authorised use in Costa Rica caused residues in excess of EU MRLs and EU RASFF notifications.

A system is in place for regular controls of retailers of PPPs. Documented procedures are implemented, and sanctions are effective and proportionate. The inspections observed by the mission team were comprehensive and detailed. The competent authority has inspected producers in the follow-up of EU RASFF notifications. In additions to controls, the authority has provided substantial training to producers. The GAP Guide for pineapple producers will help to increase the implementation of best practices by producers. Pack-houses exporting fresh fruit are authorised.

A pesticide monitoring programme for fruit and vegetables has been implemented since 2006. The programme identifies non-compliances and effective follow-up is carried out to ensure that the producers remedy the situation. There was evidence for comprehensive and satisfactory follow-up of recent EU RASFF notifications on pesticide residues in fruit from Costa Rica.

The comprehensive self-control systems for pesticide residues operated by producers and exporters, and the observed co-operation between private sector and competent authority, provide additional assurance for compliance of produce with EU MRLs for pesticides.

The visited official laboratory for pesticide residues has good facilities and skilled staff, but the scope of analyses is small, and does not include important pesticides used by producers. Weaknesses were identified in the absence of external reference, as no accreditation had been acquired and the laboratory has not taken part in proficiency tests.

Overall conclusion

The fact that several of the authorised PPPs can not be marketed and used in the EU, together with weaknesses in the official pesticide residue laboratory, can explain recent RASFF notifications. However, the progress made since 2006 with the development of the official pesticide control system and the self-controls of food business operators generally provide assurance that fruit exported to the EU complies with EU legal limits for pesticide residues.

The report contains recommendations to Costa Rica to address the identified shortcomings.

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ABBREVIATIONS AND DEFINITIONS USED IN THIS REPORT

Abbreviation	Explanation
CA	Competent Authority
CIAGRO	Association of Agricultural Engineers
CIPAC	Collaborative International Pesticides Analytical Council
CODEX	Codex Alimentarius, Food Code of the Food and Agriculture Organisation (FAO) and World Health Organisation (WHO)
DG SANCO	Directorate-General for Health and Consumers of the European Commission
ECD	Electron Capture Detector
EPA	Environmental Protection Agency
EU	European Union
EUROSTAT	Statistical Office of the European Communities
FAO	Food and Agriculture Organisation of the United Nations
FPD	Flame Photometric Detector
FVO	Food and Veterinary Office
GAP	Good Agricultural Practices
GC	Gas Chromatograph
GC-MS	Gas Chromatograph - Mass Spectrometry
GPC	Gel Permeation Chromatography
HPLC	High Performance Liquid Chromatography
ISO	International Organisation for Standardisation

LC-MS/MS	Liquid Chromatograph - Tandem Mass Spectrometry
LC-MS	Liquid Chromatograph - Mass Spectrometry
LOQ	Limit of Quantification
MAG	Ministry of Agriculture and Livestock
MINAET	Ministry of Environment, Energy and Telecommunication
MINSA	Ministry of Health
MRL	Maximum Residue Level
PPP	Plant Protection Product
RASFF	Rapid Alert System for Food and Feed
SFE	State Phytosanitary Service

1 INTRODUCTION

The mission took place in Costa Rica from 7 to 15 October 2009. The mission team comprised two inspectors from the Food and Veterinary Office (FVO) and one Member State expert.

The mission was undertaken as part of the FVO's planned mission programme and was the first mission to Costa Rica dealing with pesticide residues in produce of plant origin.

The inspection team was accompanied during the whole mission by representatives from the competent authority (CA); the State Phytosanitary Service (SFE) of the Ministry of Agriculture and Livestock (MAG).

An opening meeting was held on 7 October 2009 with the SFE, the Ministry of Health (MINSAL), the Ministry of External Trade and the Association of Agricultural Engineers (CIAGRO). At this meeting, the objectives of, and itinerary for, the mission were confirmed by the inspection team.

2 OBJECTIVES OF THE MISSION

The objective of the mission was to evaluate the control systems for pesticide residues in foodstuffs of plant origin intended for export to the European Union (EU). The facilities and measures in place for the determination of such residues in foodstuffs of plant origin intended for export to the EU were assessed to ensure that the produce is within the specified limits laid down in EU legislation. As residue controls are related to the placing on the market and use of plant protection products (PPPs), the control system for the latter functions was also evaluated. The mission formed part of a wider series of missions to Third Countries to evaluate control systems and operational standards in this sector.

The mission was carried out under the terms of the following regulations:

- Regulation (EC) No 178/2002;
- Regulation (EC) No 882/2004;
- Regulation (EC) No 852/2004;
- Regulation (EC) No 396/2005.

Legal acts quoted in this report refer, where applicable, to the last amended version. Full references to the acts quoted in this report are given in Annex 1.

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

Visits/meetings	Comments
Competent Authorities	
Central	1 SFE
Laboratory	
	1 SFE laboratory for pesticide residue analysis, Barreal

Inspection or site visits		
Pineapple growers	4	Visit to 3 pineapple growers in region Limón (980, 850 and 8 hectares, respectively), and 1 grower and his pack-house in region Alajuela-Heredia (450 hectares, involved in a notification in the EU Rapid Alert System for Food and Feed (RASFF));
Mango grower	1	Visit to a mango grower (109 hectares, involved in an EU RASFF notification) in region Guanacaste;
Melon grower	1	Visit to a melon grower (200 hectares, involved in an EU RASFF notification) in region Guanacaste;
Retailer of PPPs	1	Inspection by SFE staff of a PPP retailer in region Sarapiquí, Pital. The retailer sells PPPs , fertilisers and farm equipment to around 200 local producers (70 of which are buying PPPs in this shop).

3 LEGAL BASIS FOR THE MISSION

The mission was carried out under the general provisions of Community legislation, in particular Article 46 of Regulation (EC) No 882/2004, and in agreement with the competent authorities (CA) in Costa Rica.

4 BACKGROUND

Costa Rica is one of the most important trade partners of fruit with the EU, and 670,830 tonnes of fruit from Costa Rica (excluding bananas) were imported into the EU in 2007, according to data from EUROSTAT. This means that Costa Rica was the fifth largest exporter of fruit to the EU.

According to data from the Costa Rican Ministry of External Trade, 802,000 tonnes of fresh pineapples, 62,667 tonnes of fresh melons, 24,274 tonnes of fresh watermelons and 6,189 tonnes of fresh mangos were exported from Costa Rica to the EU in 2008. The exports to the EU of all four commodities has increased considerably since the year 2005.

The CA in Costa Rica informed the mission team that there are 1,120 growers of pineapples in Costa Rica, covering an area of 42,500 hectares. The CA have recorded 1,194 mainly small producers in the region Huetar Norte covering 21,630 hectares and 26 mainly large growers in the regions Atlantico and Pacífico, covering 20,870 hectares.

Approximately 8,500 hectares of mango were reported to be in production in 2009, spread primarily over the provinces of Guanacaste and Puntarenas. Also melons are mainly grown in these two provinces.

Since January 2007, there have been a total of 6 notifications in the EU RASFF system relating to pesticide residues in fruit from Costa Rica. There were three RASFF notifications in 2007 relating to residues of carbaryl in pineapples, one notification in 2007 relating to endosulfan in melons, one notification in 2008 relating to methomyl and carbendazim in melons and one notification in 2008 relating to prochloraz in mango.

The CA stated that no active substances are produced (synthesised) in Costa Rica. Production activity consists of the formulation of PPPs. In addition, PPPs that have been imported ready-formulated are repackaged. There are 7 establishments involved in the formulation of PPPs in Costa Rica. 25,460 tons of active ingredients and formulated products were imported between January 2008 and June 2009. Over the same period, 2,220 tons of PPPs were exported.

5 FINDINGS AND CONCLUSIONS

5.1 LEGAL REQUIREMENTS

Article 11 of Regulation (EC) No 178/2002 requires that food and feed imported into the Community for placing on the market within the Community shall comply with the relevant requirements of food law or conditions recognised by the Community to be at least equivalent thereto.

Article 18 of Regulation (EC) No 396/2005 requires that products covered by Annex I of the same Regulation shall not contain, from the time they are placed on the EU market as food or feed, any pesticide residue exceeding EU maximum residue levels (MRLs), or 0.01 mg/kg for those products for which no specific MRL is set.

Article 10 of Regulation (EC) No 852/2004, in conjunction with Article 4.1 and Annex I, Part A.III of the same Regulation, requires that food business operators producing or harvesting plant products are, in particular, to keep records on any use of PPPs.

Article 10 of Regulation (EC) No 852/2004 in connection with Article 6 of the same Regulation requires that every food business operator shall notify the appropriate CA of each establishment under its control that carries out any of the stages of production, processing and distribution of food, with a view to the registration of each such establishment.

5.2 FINDINGS

5.2.1 Legislation

Legislation on the marketing and use of PPPs and their control is laid down by Act No. 7664 of 1997. Implementing Decree 33495 of 2007 provides requirements for the registration, use and control of PPPs, technical grade active ingredients, co-formulants and related substances for agricultural use. Act 8702 of January 2009 establishes procedures for the processing of applications for the authorisation of PPPs, and a time frame for re-evaluation of all authorisations according to requirements set by Decree 33495.

Revised legislation regarding the setting of MRLs has been established by Executive Decree 35301 of 6 July 2009, which requires that MRLs have to be published on the SFE website within 6 months. SFE intends to apply the available MRLs of Codex as a first measure, and to adopt MRLs from the EU and the US Environmental Protection Agency (EPA), among others, by administrative decisions. Procedures for sampling for pesticide residue analysis have been established by Decree 27056 of 1997, but these differ from the Codex recommended sampling methods established in 1999 (Recommended methods of sampling for the determination of pesticide residues for compliance with MRLs, CAC/GL 33-1999).

A draft Decree to bring sampling procedure in line with the Codex methods was available at the time of the mission.

5.2.2 *Competent authorities*

The competent authority for authorisation, controls of the marketing and use of PPPs and controls of their residues is MAG through the SFE.

MINSA is the CA for setting and evaluating toxicological parameters for the authorisation of PPPs. The Ministry is also responsible for granting operating licenses to retailers of PPPs. The Ministry of Environment, Energy and Telecommunications (MINAET) is responsible for setting and evaluating ecotoxicological parameters for the authorisation of PPPs.

CIAGRO is responsible for ensuring that retailers of PPPs have certified compliance officers available. CIAGRO is a public non-state entity, and their role in the control of PPP retailers is specified in Act 7664 of 1997.

The following staff of SFE are involved in the controls of pesticide residues (their tasks are not limited to pesticide residues):

- Export Department: 10 officers with a university degree in agronomy;
- Pesticide Residue and Good Agricultural Practice (GAP) Unit: 5 officers, 4 with university degrees in agronomy and 1 in animal production;
- Pesticide Residue Laboratory: 9 university level officers, 2 with degrees in chemistry and 7 laboratory scientific officers;
- Quarantine Department: 8 officers with university degrees in agronomy.

The staff has received appropriate and regular training.

5.2.3 *Controls on the marketing and use of plant protection products*

5.2.3.1 *Authorisation of plant protection products*

All PPPs require authorisation prior placing on the market and use. Fifteen staff of SFE are currently involved in the authorisation of PPPs, two staff of the National Service for Animal Health and MINSA perform toxicological evaluations, and 5 staff of the MINAET are involved in ecotoxicological evaluations. Act 8702 has established a time frame for re-evaluation of all authorisations according to the new requirements including a toxicological risk analysis set by Decree 33495 of 2007. Active substances in PPPs which were first authorised before 1995 have to be re-evaluated from 2011, and active substances in PPPs which were first authorised since 1995 will be re-evaluated from 2012. In the meantime, PPPs containing existing active substances can be authorised without risk assessment. At the time of the mission, no new PPPs had been authorised yet under the requirements for risk assessment established under Decree 33495. There was a backlog of 109 PPPs currently evaluated under the requirements of Decree 33495 and 305 PPPs evaluated under Act 8702. Staff have received initial training in risk assessment and equivalence by the Food and Agriculture Organisation of the United Nations (FAO) and by the US EPA, but at the time of the mission had no experience in the evaluation of data under the new requirements. SFE plan to recruit additional staff for the authorisation procedure.

There are 2,452 PPPs authorised in Costa Rica, containing 348 active substances. Several of these substances can not be marketed and used in the EU, and their use in Costa Rica could lead to residues in excess of EU MRLs. This is the case for carbaryl and methomyl, which were involved in recent EU RASFF notifications.

The official register of authorised PPPs (<http://www.protecnet.go.cr/insumosys/>) is published on the SFE website. The information on the website is updated on a regular basis, as necessary. The information on the website does not contain complete information about the authorisation, such as the authorised dosage and pre-harvest interval.

5.2.3.2 *Controls of the marketing of plant protection products*

There are 350 retailers of PPPs registered in Costa Rica. Retailers must have a permit by MINSA, a certificate of the CIAGRO, and the staff must include a compliance officer who is certified by CIAGRO. The sale of toxic and highly toxic PPPs is restricted by prescriptions of a Member of CIAGRO, and must be recorded by the retailer in a register. SFE has an annual inspection programme for retailers of PPPs in place. They aim to inspect all retailers twice per year. Additional inspections are performed by CIAGRO, who plan to perform three inspections per retailer per year in their annual inspection programme.

The SFE and CIAGRO demonstrated inspections of a retailer of PPPs. SFE inspections are performed by two inspectors, and SFE has also organised joint inspections with CIAGRO. SFE check the required MINSA permit, the CIAGRO certificates and the sales register of restricted PPPs. They stated that they perform a detailed label check of the PPPs on stock. However, as the published register of authorised PPPs is incomplete, the inspectors can only check labels in individual cases by contacting the head office by telephone. Before the observed inspection, the retailer had been inspected by SFE in January and May 2009, and in January, March and June 2008. Reports of the previous inspections were available. The records show that typically 2 to 4 retailers are inspected per day. The SFE stated that an individual inspection can last up to one day. Inspections of CIAGRO also focus on certificates and authorisations, but in addition to health and safety aspects of the work place and environmental issues.

In case of infringements, SFE can temporarily confiscate products or close the retailers, in accordance with Articles 35 and 38 of Act 7664. A deadline for corrective action is usually given. Infringements can be referred to the General Prosecutor. The courts decide on any final sanctions to be taken. The SFE inspection reports show that the confiscation of unauthorised or incorrectly labelled products is a frequent enforcement measure. CIAGRO informs SFE of infringements, which they detect, for any enforcement measures. In case of non-compliance, the certificates can be withdrawn.

The inspectors met by the mission team were trained and experienced. There were standardised report forms for controls of retailers and for detention of non-compliant PPPs.

5.2.3.3 *Controls of the use of plant protection products*

SFE has developed a draft GAP Guide for pineapple producers, in consultation with the pineapple growers association. SFE stated that the development of further GAP Guides for mangoes, melons and other fruit is planned. The GAP Guide specifies best practices for the production of pineapples. They do not refer to the MRLs of the export markets. The SFE has also performed a field study with 44 samples of pineapples from small and large growers to demonstrate that producers can comply in practice with the proposed new EU MRL of 0.5 mg/kg for ethephon in pineapples. The field study is based on a revised GAP adding phosphoric acid to adjust the pH of the spraying solution.

Since 2007, SFE has organised training courses for the users of PPPs on GAP. The courses are mostly organised on the premises of producers to allow hands-on training, and training is provided

by SFE staff. In total, 3,715 producers and 437 technicians have been trained since this activity started, including 90 % of the pineapple producers. Trained operators receive a certificate and a card with photo identification.

SFE does not perform regular inspections of producers regarding pesticides use, but has inspected producers in the follow-up of EU RASFF notifications. In addition, the SFE Export Department carries out regular phytosanitary checks on the farms. SFE stated that within the scope of the phytosanitary checks the records of PPPs are also controlled.

The inspectors met by the mission team were trained and experienced. There were standardised report forms for RASFF follow-up visits at the growers, which are used as check-lists by the inspectors. The checks of the Export Department are recorded in a log-book at producers and pack-houses, but these records are not structured, and do not contain details of any recommendations and infringements.

5.2.3.4 Formulation analyses

SFE regularly takes samples of PPPs for formulation analysis, and has analysed 287 samples in 2008. Samples are mostly taken at big warehouses, and formulation analysis is performed by the SFE formulation laboratory, where samples are analysed for identity and content of active substance and physical and chemical properties of the products. The results are compared to the FAO specification of the products. The laboratory is equipped with GC-MS and LC-MS/MS equipment, and uses methods as standardised by CIPAC. They have not participated in CIPAC collaborative trials. The CA stated that 41 of the 246 samples analysed in 2008 were non-compliant. PPPs that do not comply with the provisions of the law are retained or confiscated.

5.2.4 Controls of pesticide residues in food of plant origin

5.2.4.1 Communication of EC MRLs

The SFE informs producers and exporters as to the requirements of EU MRLs and their revisions. For this purpose, SFE has organised trainings, meetings and publishes information on their website. SFE stated that training was also provided on how to consult the EU website in order to check MRLs.

5.2.4.2 Traceability and record-keeping

For the export of pineapple, melon, mango and watermelon traceability is required for phytosanitary certification by the technical guides for inspection and phytosanitary certification under Act 7664. There is no legal traceability requirement for other food of plant origin exported to the EU. The mission team verified that traceability systems were implemented by all visited producers, including the visited small grower of pineapples, and the visited pack-house. The systems allowed tracing back to the plot.

There is no legal requirement for keeping of records of PPP uses established, but the requirement is included in the draft GAP Guide for pineapples. The keeping of records is also required by the private GAP standards to which growers are certified and the keeping of such records was verified by the mission team.

5.2.4.3 *Control of pack-houses*

There is a legal requirement for registration of pack-houses by the SFE. The SFE performs regular inspections of the pack-houses for phytosanitary purposes, including traceability requirements.

5.2.4.4 *Sampling and monitoring programmes for pesticide residues*

Since 2006, a pesticide monitoring programme for fruit and vegetables has been implemented by the SFE. An annual risk-based plan is in place. In this programme, 466 samples were taken in 2007, and 552 samples in 2008. In 2009, the number of samples was increased and the taking of 991 samples is planned. In the first semester of 2009, 462 samples have been taken. The samples are mainly taken in produce for the domestic market, but a small number of samples are taken in produce for export. The taking of 23 pineapple samples, 19 mango samples, and 7 melon samples is planned for 2009. Samples are taken at distribution centers of supermarket chains, municipal markets, farmers markets, pack-houses and farms. Analyses are carried out in the SFE pesticide residue laboratory.

The mission team observed the taking of a pineapple sample at a pack-house. The sample was taken from the conveyor belt after post-harvest treatment and packing in boxes. Five units with a total weight above 2 kg were randomly selected; the sample was placed in a plastic bag, and correctly sealed. The seal contained a number relating to the sampling report. The standardised sampling report was signed by the inspector, the food business operator and a witness. One copy stays with the business operator, and another copy is kept at the SFE Pesticide Residues and GAP Unit's office. The mission team noted that sampling officers were equipped with latex gloves, which can lead to cross-contamination in the analyses for dithiocarbamates.

Where MRL infringements are detected, the respective producers receive a written report, and are requested to submit an explanation and an action plan. GAP training is arranged for non-compliant producers, and follow-up samples are taken from these producers. The percentage of non-compliant samples has varied between 40 % in the first semester 2006 and 9 % in the first semester 2008.

5.2.4.5 *Certification of exports*

Certification of plant produce for pesticide residues intended for export to the EU is not performed, as in the EU legislation certification for pesticide residues in food of plant origin is not required.

5.2.4.6 *Follow-up of notifications in the EU RASFF*

In 2007, there were four RASFF notifications for pesticide residues, in melons and pineapple, and there were another 2 notifications for mango and melons in 2008.

SFE provided information about the systematic follow-up of the RASFF notifications, and the mission team visited the producers involved in RASFF notifications for pineapple, mango and melon. The different RASFF notifications had been received by SFE through the EC-Delegation in San José, or the Costa Rican Embassy in Brussels, or the Spanish CAs. The notifications had generally been received within one or two weeks. The operators had been informed immediately about the non-compliances by their European customers. The growers and the pack-houses involved were contacted by SFE, and inspections were carried out by SFE staff on the spot. The inspectors checked the spraying records and other documentation. Samples were taken for pesticide residue

analysis to identify the source and significance of the problems. Samples were also taken from producers not involved in the RASFF notifications.

In the case of notifications relating to carbaryl in pineapples, a granular PPP formulation type was identified as the origin of the MRL violations and a different formulation was recommended to all producers.

Regarding the RASFF notification for mango, private re-analyses were arranged for by the producer and the EU importer, but they could not confirm the MRL infringement of prochloraz. The SFE inspections could not identify any infringements of the producer. As the SFE cannot analyse for prochloraz, samples of the producer were re-analysed in a private laboratory in Costa Rica and two laboratories in the EU. The mission team noted that the Costa Rican laboratory performed the analyses with GC equipment, which is generally not suitable for this pesticide.

Regarding the 2008 RASFF notification for melon, the notification had not contained sufficient traceability information to allow identification of the exact production data. The SFE did not have a method to analyse for carbendazim, which was involved in this notification. However, the producer made a commitment to no longer use the pesticides involved.

In all evaluated cases, the SFE compiled comprehensive reports of their detailed investigations. Since August 2008, no further RASFF notifications were issued by the EU on fruit from Costa Rica.

5.2.4.7 Additional private controls

Producers, pack-houses and exporters operate comprehensive self-control systems for pesticide residues. Controls include certification to private GAP standards and private sampling for pesticide residue analysis. Private sampling is mainly performed by the importers in the EU, but also by producers and exporters in Costa Rica. Where analysis is performed in Costa Rican private laboratories, the reports of these analyses showed that analysis is mainly performed by GC equipment. The mission team noted that farmers are using pesticides which cannot be detected by the equipment used.

The professional association of pineapple producers has developed a framework guide for pineapple production, in co-operation with SFE staff. The association was also consulted in the development of the draft GAP Guide for pineapples. The association is supporting the SFE training programme for pineapple producers and has started an inspection programme of their members. The association estimates that 60 % of their Members have been trained.

5.2.5 Laboratory for pesticide residue analysis

5.2.5.1 Organisation

The mission team visited the only laboratory that analyses official samples for pesticide residues. This laboratory is part of SFE.

5.2.5.2 Resources and training

The laboratory has good facilities. Nine staff, including 7 analysts, perform pesticide residue analysis. The staff are regularly trained and have good skills. The laboratory is equipped with GC

with ECD and FPD detectors, GC-MS and HPLC with Pickering post-column derivatisation of N-methylcarbamates. The GC-MS equipment is being used for confirmation of the positive results only. Additionally, an LC-MS (single quad) was recently purchased, and is used for pesticide analysis in water for bromacil and 2,4 D.

5.2.5.3 *Analytical spectrum and methods*

The laboratory uses a multi-residue method based on ethyl acetate extraction followed by GPC-clean-up for organophosphorous and organochlorine pesticides. There are currently 32 pesticides in the scope of the method. The current scope of analysis in the laboratory does not cover important pesticides used by the growers such as prochloraz and carbendazim. These pesticides were also involved in RASFF notifications. In 2007 and 2008 about 500 samples were analysed. In 2009 this number has been reached by July and about 1000 samples are expected. Additionally a small number of analyses are done for the private sector.

5.2.5.4 *Quality assurance systems*

Quality control data were traceable, and included calibration at 7 points and routine recovery checks for all pesticides in the analytical scope. No accreditation had been acquired and the laboratory had not taken part in proficiency tests. Methods were only partly validated. This is not in line with point 41 and 42 of the Codex Guidelines for the design, operation, assessment and accreditation of food import and export inspection and certification systems (CAC/GL 26-1997).

5.3 CONCLUSIONS

5.3.1 *Legislation*

Legislation is in place for the authorisation and the control of the marketing and use of PPPs, and for pesticide MRLs. The national MRLs are not equivalent to the EU MRLs.

Legislation on sampling for pesticide residues is not equivalent with the methods established by Codex, but a draft Decree to bring sampling procedure in line with the Codex methods is available.

5.3.2 *Competent authorities*

The CAs are clearly defined. The SFE have an adequate number of trained staff to carry out official controls.

5.3.3 *Controls of the marketing and use of plant protection products*

There is a system for authorisation of PPP in place. New legislation has been introduced in 2007 to include a risk assessment for consumers in the authorisation procedure, but no PPPs have been authorised yet under the new requirements, and there is a backlog of PPPs under evaluation.

For several of the active substances contained in authorised PPPs, a decision on non-inclusion in Annex I of Directive 91/414/EEC has been taken. If applied on produce for the export market, they can lead to infringements of EU MRLs. However, SFE provides information about EU MRLs to producers and exporters.

An official register of authorised PPPs is regularly up–dated on the SFE website. However, the details of the authorisations are not fully transparent, as the published database does not contain complete information on the authorised GAP.

A system is in place for regular controls of retailers of PPPs. Documented procedures are implemented. Sanctions are effective and proportionate. The inspections observed by the mission team were comprehensive and detailed.

The CA does not perform regular inspections of producers regarding the use of PPPs, but has inspected producers in the follow-up of EU RASFF notifications. In additions to controls, the CA has provided substantial training to producers. The GAP Guide for pineapple producers will help to increase the implementation of best practices by producers.

The quality of PPPs is checked by regular formulation analyses.

5.3.4 Controls of pesticide residues in food of plant origin

Pack-houses exporting fresh fruit and vegetables are authorised, in accordance with Article 10 of Regulation (EC) No. 852/2004 in conjunction with Article 6 of the same Regulation. Comprehensive traceability systems were implemented in the pack-house visited by the mission team. In compliance with Article 10 of Regulation (EC) No 852/2004 in connection with Article 4.1 and Annex I, Part A.III of the same Regulation, the producers met by the mission team kept records of uses of PPPs.

A pesticide monitoring programme for fruit and vegetables has been implemented since 2006. The programme identifies non-compliances and effective follow-up is carried out to ensure that the producers remedy the situation. The observed sampling procedure followed the recommendations of the Codex Alimentarius.

There was evidence for comprehensive and satisfactory follow-up of recent EU RASFF notifications on pesticide residues in fruit from Costa Rica.

The comprehensive self-control systems for pesticide residues operated by producers and exporters, and the observed co-operation between private sector and CA, provide additional assurance for compliance with EU MRLs for pesticides.

5.3.5 Laboratories for pesticide residue analysis

The visited laboratory for pesticide residues has good facilities and skilled staff, but the scope of analyses is small, and does not include important pesticides used by producers, and involved in RASFF notifications. For analysis of monitoring samples with a broad multi residue screen and low LOQs the laboratory would need to use LC-MS/MS.

Weaknesses were identified concerning the absence of external reference (as no accreditation has been acquired and the laboratory has not taken part in proficiency tests), and concerning the incomplete validation of methods. This is not in line with point 41 and 42 of the Codex Guidelines for the design, operation, assessment and accreditation of food import and export inspection and certification systems (CAC/GL 26-1997). The laboratory has capabilities for a broad monitoring programme with quality control procedures, which are equivalent to the EU Guidelines, but considerable external guidance and validation activities are needed.

6 OVERALL CONCLUSIONS

The fact that several of the authorised PPPs can not be marketed and used in the EU , together with weaknesses in the official pesticide residue laboratory, can explain recent RASFF notifications. However, the progress made since 2006 with the development of the official pesticide control system and the self-controls of food business operators generally provide assurance that fruit exported to the EU complies with EU legal limits for pesticide residues.

7 CLOSING MEETING

A closing meeting with the competent authorities was held on 15 October 2009. At this meeting, the main findings and conclusions of the mission were presented by the inspection team. The representatives of the CA offered some initial comments and clarifications.

8 RECOMMENDATIONS

In relation to pesticide residues in food of plant origin intended for export to the EU, Costa Rica should improve the controls, in order to guarantee that the produce complies with, or is equivalent to, EU standards pursuant to Article 11 of Regulation (EC) No 178/2002. In particular:

Nº.	Recommendation
1.	Costa Rica should continue implementing the new national authorisation procedures for plant protection products and reduce the backlog of PPPs under evaluation.
2.	Costa Rica should consider improving transparency of the register for authorised plant protection products for growers, pack-houses and exporters.
3.	In line with point 41 and 42 of the Codex Guidelines for the design, operation, assessment and accreditation of food import and export inspection and certification systems (CAC/GL 26-1997), the inspection services of Costa Rica within the scope of this mission should utilise laboratories that are evaluated and/or accredited under officially recognised programmes to ensure that adequate quality controls are in place to provide for the reliability of test results. Inspection systems' laboratories should apply the principles of internationally accepted quality assurance techniques to ensure the reliability of analytical results.

N°.	Recommendation
4.	Costa Rica should consider broadening the scope of analyses in the pesticide residues laboratory to include important pesticides used by producers and involved in RASFF notifications.

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

http://ec.europa.eu/food/fvo/ap/ap_cr_2009-8335.pdf

The competent authorities of Costa Rica are invited to send an action plan in response to the recommendations to the Commission within 25 working days of the dispatch of this report. Such action plan should clearly set out the manner in which, and the deadline by which, the competent authorities will address each recommendation.

ANNEX 1 - LEGAL REFERENCES

Legal Reference	Official Journal	Title
Dir. 91/414/EEC	OJ L 230, 19.8.1991, p. 1-32	Council Directive 91/414/EEC of 15 July 1991 concerning the placing of plant protection products on the market
Dir. 2002/63/EC	OJ L 187, 16.7.2002, p. 30-43	Commission Directive 2002/63/EC of 11 July 2002 establishing Community methods of sampling for the official control of pesticide residues in and on products of plant and animal origin and repealing Directive 79/700/EEC
Reg. 178/2002	OJ L 31, 1.2.2002, p. 1-24	Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety
Reg. 882/2004	OJ L 165, 30.4.2004, p. 1, Corrected and re-published in OJ L 191, 28.5.2004, p. 1	Regulation (EC) No 882/2004 of the European Parliament and of the Council of 29 April 2004 on official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules
Reg. 852/2004	OJ L 139, 30.4.2004, p. 1, Corrected and re-published in OJ L 226, 25.6.2004, p. 3	Regulation (EC) No 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs
Reg. 396/2005	OJ L 70, 16.3.2005, p. 1-16	Regulation (EC) No 396/2005 of the European Parliament and of the Council of 23 February 2005 on maximum residue levels of pesticides in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC