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FINAL REPORT OF A MISSION
CARRIED OUT IN GREECE
FROM 16 TO 20 APRIL 2007
IN ORDER TO EVALUATE CONTROLS OF PESTICIDE RESIDUES
IN AND ON FOOD OF PLANT ORIGIN



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ABBREVIATIONS & SPECIAL TERMS USED IN THE REPORT

BPI	Benaki Phytopathological Institute
CA	Competent Authority
CCA	Central Competent Authority
DPPP	Directorate of Plant Produce Protection
EC	European Communities
ECD	Electron Capture Detector
EFET	Hellenic Food Safety Authority
EU	European Union
FPD	Flame Photometric Detector
FVO	Food and Veterinary Office
GC	Gas Chromatograph
GCSL	General Chemical State Laboratory
GAP	Good Agricultural Practice
ISO	International Organisation for Standardisation
MD	Ministry of Development
MEFA	Ministry of Economic and Financial Affairs
MH	Ministry of Health
LC-MS/MS	Liquid Chromatography-Mass Spectrometer/Mass Spectrometer
MRDF	Ministry of Rural Development and Food
MRL	Maximum Residue Level
MS	Mass Spectrometer
MSD	Mass Spectrometric Detector
NPD	Nitrogen Phosphorous Detector
NRL	National Reference Laboratory
PDRD	Prefecture Directorate of Rural Development
RASFF	Rapid Alert System for Food and Feed
RCPPQC	Regional Centre for Plant Protection and Quality Control
SANCO	Health and Consumer Protection Directorate of the European Commission
TSD	Thermoionic Specific Detector

EXECUTIVE SUMMARY

The mission took place to evaluate the controls of pesticide residues in and on food of plant origin being imported and on the domestic market and to follow up the recommendations made in report DG (SANCO) 7333/2004.

Control system for pesticide residues

Relevant legislation is mostly in place and competent authorities are clearly defined.

While vertical communication within the Ministry of Rural Development and Food is working well, communication and co-ordination between this Ministry and the Hellenic Food Safety Authority still has to be improved.

Annual control plans are established and implemented. No comprehensive written procedures for carrying out controls are in place. Sampling procedures substantially comply with Directive 2002/63/EC. Detected infringements are followed-up.

Only 2 of the 10 laboratories involved in official controls of pesticide residues are accredited. Not all laboratories take part in proficiency tests. The range of analysis (10 – 111 analytes) does not allow full application of the pesticide residue legislation for food of plant origin and especially for baby food.

Both laboratories visited have adequate facilities and up-to-date instrumentation and the staff are experienced and well-trained. The SANCO guidelines for quality control procedures are mostly followed in the laboratories visited, but the analytical methods are only partly validated.

Follow up of previous mission

In total, 10 recommendations were made in report DG (SANCO) 7333/2004. 3 have been fully addressed, 6 have been partly addressed and one is obsolete due to new legislation.

Overall conclusion

A control system for pesticide residues in food of plant origin is in place. However, its effectiveness is limited especially because of the insufficient range of pesticides covered by the analytical methods applied and the incomplete quality control procedures and lack of accreditation in many of the laboratories.

Progress has been achieved in many areas since the last mission, but further progress is required in other areas such as communication, cooperation and written procedures.

The report contains a number of recommendations to the Greek authorities to address the deficiencies noted.

1. INTRODUCTION

The mission took place in Greece from 16 to 20 April 2007. 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.

The inspection team was accompanied during the whole mission by representatives from the central competent authority (CCA), the Ministry of Rural Development and Food (MRDF).

An opening meeting was held on 16 April 2007 with representatives from the CCA, MRDF, the Hellenic Food Safety Authority (EFET), the Ministry of Health (MH) and the Ministry of Economic and Financial Affairs (MEFA), from two regional and three prefecture competent authorities (CAs) and from two laboratories.

At this meeting, the objectives and itinerary for the mission were confirmed by the inspection team.

2. OBJECTIVES OF THE MISSION

The main objective of the mission was to evaluate the control systems put in place for pesticide residues in foodstuffs of plant origin in the framework of Council Directives 86/362/EEC¹ and 90/642/EEC, Regulations (EC) No 396/2005, No 882/2004 and No 178/2002 of the European Parliament and of the Council and Commission Regulation (EC) No 645/2000. The follow-up of recommendations made by mission DG/SANCO/7333/2004 was a further objective of the present mission.

Findings during missions to third countries have shown deficiencies in the control system for pesticide residues in plant produce exported to the EU. As a result, the assessment of controls at the point of import from third countries is included in the current series of missions.

The mission formed part of a wider series of missions to Member States to evaluate control systems and operational standards in this sector.

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

¹ 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.

Table 1: Mission visits and meetings

Visits/meetings		Comments
COMPETENT AUTHORITIES		
Central	1	MRDF, with the attendance of EFET, MH, MEFA, and regional and prefecture CAs Regional Centres for Plant Protection and Quality Procedures (RCPPQCs) of Thessaloniki and Piraeus, with the attendance of the Prefecture Directorates of Rural Development (PDRDs) Port of Piraeus
Regional	2	
Import Point	1	
LABORATORIES		
Public	2	Laboratories for pesticide residue analysis at the RCPPQC in Thessaloniki and at the Benaki Phytopathological Institute (BPI) in Kifissia
INSPECTION VISITS		
Packing house	1	Observation of a sampling of a consignment of asparagus
Import point	1	Observation of a sampling of a consignment of imported pears

3. LEGAL BASIS FOR THE MISSION

The mission was carried out under the general provisions of Community legislation, in particular:

- Article 45 of Regulation (EC) No 882/2004 of the Parliament and the Council;
- Article 5 of Commission Regulation (EC) No 645/2000.

4. BACKGROUND

4.1. Previous mission series

Prior to this mission series, the FVO carried out two series of missions to all Member States concerning pesticides in food of plant origin. The final reports of these missions can be found on the DG Health and Consumer Protection Internet site: http://ec.europa.eu/food/fvo/ir_search_en.cfm

During these missions, a number of deficiencies in control systems were identified such as deficiencies in the planning and conducting of inspections for control of the marketing and use of plant protection products, the technique of sampling, assessment of risk to consumers and operation of the EU Rapid Alert System for Food and Feed, the follow up of infringements and the range of analysis in pesticide residue laboratories. Action Plans outlining how the recommendations would be addressed were submitted by the competent authorities.

This was the third mission undertaken to Greece for pesticide controls in food of plant origin. Earlier missions with similar objective, (DG/SANCO/8711/2002 and DG/SANCO/7333/2004), had been carried out from 4 to 8 November 2002 and from 15 to 19 November 2004 respectively.

4.2. Trade and agricultural statistics

According to statistics supplied by the competent authorities prior to the mission (source: General Secretariat of the National Statistical Service of Greece), the main commodities of plant origin produced domestically in Greece in 2006 were cereals (5.1 million tonnes), sugar beets (2.6 million tonnes), olives for oil production (2.3 million tonnes), tomatoes (1.7 million tonnes) and peaches (0.8 million tonnes). The main imported commodities of plant origin in 2006 were spring wheat (0.04 million tonnes), barley (0.2 million tonnes), maize (0.1 million tonnes) and potatoes (0.05 million tonnes).

5. MAIN FINDINGS

5.1. Transposition and implementation of legislation

All legislation up to and including Commission Directive 2006/92/EC amending the Annexes to Council Directives 76/895/EEC, 86/362/EEC, and 90/642/EEC has been transposed with the exception of Council Directives 88/298/EEC and 89/186/EEC. Representatives of the MRDF informed the mission team that they are seeking legal advice on the need for transposition at this late stage.

National legislation (several Ministerial Decisions and circular letters) is in place specifying the implementing measures for Regulations (EC) No 178/2002 and (EC) No 882/2004 such as competencies, procedures and fines for infringements.

5.2. Competent Authority

5.2.1. Structure and resources at Central, Regional and Local levels

Table 2: Structure and responsibilities of CAs

Ministry	Levels	Organisation	Competencies
MRDF	Central	Directorate of Plant Produce Protection (DPPP)	Pesticide residue legislation, setting of MRLs, planning for controls on domestic market (except processed food) and at import.
MRDF	Region or Prefecture	8 RCPPQCs or PDRD	Performance of controls for domestic market (except processed food) and at point of entry and follow-up of controls.
Ministry of Development (MD)	Central	EFET	National contact point for the EU RASFF system. Planning of controls of processed food on the domestic market.
MD	Regional	Regional Directorates of EFET (5 out of 13 planned Regional Directorates have been established)	Performance of controls of processed food on the domestic market.

Ministry	Levels	Organisation	Competencies
MH	Central	National Organisation for Medicines	Baby food legislation.
MEFA	Central	Directorate for Customs and Procedures	Customs control policy and coordinating of customs procedures.
MEFA	Local	135 local customs offices	Customs controls.

The structures of the CAs responsible for controls of pesticide residues in food of plant origin on the domestic market and circulating within the internal market have not changed since mission DG/SANCO/7333/2004 concerning controls of pesticides in food of plant origin.

The competencies of the Directorate for Customs and Procedures of MEFA and the 135 local customs offices concerning imports have not changed since mission DG/SANCO/8114/2006 in order to evaluate import controls on food and feed of non-animal origin.

Controls of pesticide residues in primary food of plant origin at the point of import are the responsibility of the DPPP at the MRDF.

Controls of pesticide residues in processed products at the point of import are the responsibility of EFET, but are assigned to the MRDF and the GCSL (General Chemical State Laboratory).

Overall, 170 staff are involved in planning and carrying out controls for pesticide residues in food of plant origin: 5 agronomists in the DPPP at the MRDF, 5 scientists in EFET at central level, 29 staff in the RCPPQCs of the MRDF, 2-3 agronomists in each of the 52 PDRDs, 14 staff in the Regional Directorates of EFET, 7 staff in the BPI, and 7 staff in the GCSL. Most spend only a small portion of their working time on controls of pesticide residues.

5.2.2. *Structure and resources of designated control bodies*

No private control bodies are used for official control.

5.2.3. *Communication within and between competent authorities*

In preparation of the annual control programme, the MRDF organises meetings with the RCPPQCs where related issues are also discussed. The MRDF frequently sends letters to its inspection bodies containing information such as new legislation, instructions for controls or decisions concerning infringements.

The RCPPQCs invite the PDRDs to meetings to coordinate the regional proposals for the control programme and as the need arises. The inspection team was informed that informal communication, usually by telephone, takes place between PDRDs and also between regions, mostly concerning non-compliances detected and their follow-up. However, there is no systematic exchange between regions concerning MRL exceedances and other incidents.

Copies of several documents were provided by a representative of the MEFA showing regular communication with the MRDF and with the customs offices concerning controls of pesticides and pesticide residues.

Copies of only a few recent circular letters relating to the monitoring programme and its planning, which were also directed to EFET, were provided to the mission team. It was noted that the MRDF had no prior knowledge of the intention of EFET to establish 2 new laboratories and was already in the process of acquiring equipment. Communication and co-operation within EFET could not be discussed or verified during the mission as only a representative of the central level was present during the meetings (see also section 5.3.1.2).

Communication between the MRDF, the inspection bodies and the laboratories is described in section 5.3.

5.2.4. Communication between competent authorities and stakeholders

The CAs inform stakeholders such as importers and trade organisations concerning new MRLs and answer questions of stakeholders by mail, at meetings and via the official web sites of MRDF and EFET.

5.2.5. Supervision and auditing of controls by competent authorities

Audits by EFET of their inspection bodies responsible for pesticide residue controls are currently provided for in law, but have not yet been implemented. The mission team was informed by the representative of EFET that audit bodies are currently being established.

No internal audits for their inspection bodies have yet been planned by MRDF.

5.2.6. Training of staff

In addition to 4 months of training for inspectors on plant health carried out at the Benaki Institute, introduced 10 years ago, specific training on plant protection and pesticide residues for inspectors started in June 2006.

The training is provided by the MRDF, with the support of the Institute of Education of the Ministry of the Interior, Public Administration and Decentralisation, for the staff of the RCPPQCs and the PDRDs. The courses cover relevant legislation, control of plant protection products, marketing and distribution of plant protection products, residue controls, risk assessment, practical training including sampling, and a visit to a laboratory.

Two 2-week cycles have been carried out in Athens and one in Patras with approximately 20-25 participants per course. A further 2 training courses are planned for Thessaloniki. It is planned to provide refresher courses every 2 years.

5.3. Implementation of controls

5.3.1. Control activities regarding pesticide residues on domestic produce

5.3.1.1. Planning of controls:

The mission team was informed that the national control plan for pesticide residues for 2007 is part of the Multi-Annual Control Plan, which is ready for signature.

National control plans for primary products have existed since 2003. They are established bottom-up, starting with proposals prepared by the PDRDs. Representatives of the PDRDs in the region of Athens and Piraeus stated that their proposals for this year's plan are based on the results of the previous year (commodities where MRL exceedances or illegal use was detected), production volumes and the character of food businesses in their regions. The proposals of the second region visited (Thessaloniki) had remained largely unchanged during the recent years. Meetings are organised in the regions to collate these proposals.

The regional proposals are coordinated in a meeting at central level. A representative of MRDF explained to the mission team that the final control plan reflects the proposals of the prefectures, nutritional habits, the capacity of the laboratories and non-compliances from previous years.

The annual plan for 2007 includes the sampling of some 1700 samples of primary products. It specifies the number of samples to be taken, the commodity and the laboratory where the samples are to be analysed. It does not specify the percentage of domestic produce, produce from other EU MS or imported produce to be sampled.

The annual plan for 2007 incorporates for the first time EFET's control plan for sampling processed food for pesticide residue analysis. The latter is discussed during a meeting of the MRFD and EFET and is based on results from previous years, RASFF notifications, nutritional habits, particular concerns expressed by consumers and products of special national interest such as olive oil. The plan for 2007 provides for the analysis of some 100 samples from commodities such as flour, olive oil, canned peaches and baby food.

The national control plan includes also samples to be taken and analysed under the EU coordinated plan. For 2007, analyses for different analytes in each laboratory are being carried out in the RCPPQCs laboratories in Ioannina and Piraeus. It was noted that the plan provides for fewer samples for the Ioannina laboratory than specified in the EU coordinated plan and the requests for taking these samples are not coordinated between the two laboratories.

Regional plans provide a breakdown of the samples to be taken per commodity in each of the prefectures and the period of time during which the samples should be taken. However, the businesses to be controlled, samples to be taken and the distribution of tasks are decided by the head of the service in an informal way.

5.3.1.2. Carrying out of controls:

Staff of the RCPPQCs, the PDRDs and the BPI are authorised to take samples for pesticide residue analysis on behalf of the MRDF. Decisions on who takes the samples are taken in the regions. In the regions visited (Athens/Piraeus and Thessaloniki), samples from the domestic market are taken by PDRD staff with RCPPQC staff occasionally participating in sampling in the region of Thessaloniki.

The inspectors receive written instructions for carrying out controls in the course of the monitoring programme and through circular letters sent by the MRDF to the inspection services.

Samples are taken at all points between farm (after harvest) and retail point.

A sampling procedure of a consignment of asparagus was observed by the mission team at a packing house. The sample was taken after grading and washing. The inspector took a total sample of approximately 2.5 kg randomly from boxes containing the 9 different categories of the produce of a single producer. The sample was split into two parts, each with a minimum weight of 1 kg, which were put into plastic bags. The bags were tied up with a wire, labelled and sealed. A form was completed in triplicate, one for the owner, one for the laboratory and one for the inspector.

A system of code numbers for all businesses involved in the production and trading of food has been introduced. These codes are usually recorded when samples for pesticide residue analysis are taken to allow the consignment to be traced back. No specific traceability controls are carried out during inspections.

The self-control systems of food businesses are not evaluated during inspections and consequently the reliability of any own checks that have already been carried out cannot be taken into account for the planning of controls, as required by Article 3 (1) (c) of Regulation (EC) No 882/2004.

Samples of primary products are analysed in the RCPPQC laboratories or the BPI. They are transported either to the laboratory by the inspector or sent by courier.

Samples of processed food inclusively baby food are sampled by staff of the Regional Directorates of EFET and sent to GCSL for analysis. Although requested by the mission team during the opening meeting, meetings with staff of EFET at regional level to discuss details concerning controls of pesticide residues in processed food did not take place during the visits to the regions.

5.3.1.3. Reporting of controls:

All analytical results are sent daily by the laboratory to the MRDF and to the PDRD where the sample was taken.

The MRDF receives summary reports of the results of official controls of pesticide residues from the laboratories annually and compiles a national report for submission to the European Commission.

In 2005, Greece reported the analysis for pesticide residues of 1831 samples of fruits and vegetables (85% domestic produce) with MRL exceedances found for 1.1% of the samples. 184 samples of cereals (0% from the domestic market) were analysed for pesticide residues. 0.5% of the samples showed exceedances of the MRLs. 1.7 % of 463 samples of processed food other than baby food all from the domestic market were non-compliant. No pesticide residues were found in 12 samples of baby food.

In Thessaloniki, the summary report for 2006 was already available at the time of the mission. The numbers of samples planned for this region had been met.

5.3.1.4. Follow-up of controls:

After receiving analytical results from the laboratory, the MRDF carry out an acute risk assessment for the consumer for samples where MRL exceedances were detected. However, they do not systematically record the outcome. According to the procedure, EFET, which is the national contact point for the RASFF system, is notified when a possible health risk for the consumer is identified.

EFET has written procedures for the RASFF system. However, it was noted that they do not include instructions for carrying out a risk assessment and criteria for the notification of pesticide residue findings as specified by the "Draft guidance document on notification criteria for pesticide residue findings to the Rapid Alert System for Food and Feed system" (SANCO/3346/2001, rev. 7).

When non-conformities are detected, the MRDF sends a letter to the PDRD and in copy to the RCPPQC concerning the follow-up actions to be taken. The staff of the PDRDs are responsible for requesting further information from the owner or his representative and to provide the file to the MRDF. The decision as to whether an infringement has been committed is made by the MRDF. Actions taken include imposing of fines and follow-up sampling. The produce has usually been consumed before the analytical results are available. Consignments that have been sampled for follow-up are retained until shown to be compliant.

If domestic produce is found to contain pesticide residues for which no formulation containing the respective active substance is registered in Greece, this finding is regarded as proof of illegal use even if the analytical result is below the harmonised EU MRL. Also MRL exceedances are enforced under marketing and use legislation for not following Good Agricultural Practice (GAP) and not under MRL legislation.

5.3.2. Control activities for pesticide residues in imports

5.3.2.1. General import procedures

The general import procedures have not changed since mission DG/SANCO/8114/2006 in order to evaluate import controls on food and feed of non-animal origin. Customs cannot release certain food without prior approval from the control bodies under the MRDF.

5.3.2.2. Planning of controls:

For control plans, see section 5.3.1.1.

5.3.2.3. Carrying out of controls:

Concerning staff authorised to take samples and written procedures for carrying out controls see section 5.3.1.2.

In the region of Piraeus/Athens RCPPQC staff takes samples at import point. In the second region visited (Thessaloniki) samples are usually taken by PDRD staff also at import point.

Joint Ministerial Decision 2144/2-8-2006 lays down that 5% of imported consignments of cereals per year and per country of origin are to be sampled for pesticide residue analysis. According to circular 4910/10-3-95 one in every 15 consignments of imported potatoes, onions and watermelons and 1 in 10 of other products should be sampled. It was noted that 107 consignments of imported food of plant origin were sampled at the port of Piraeus in 2006. For different commodity/country of origin combination the sampling frequency varied between 0% and 100%.

The head of the RCPPQC Athens/Piraeus informed the mission team that he decides whether consignments are to be sampled when he receives notifications from customs concerning imported food of plant origin, taking into consideration laboratory capacity.

A sampling procedure of a consignment was observed at the port of Piraeus. The inspector took two to three pears from 10 boxes from 3 pallets in a container containing 20 pallets. The mission team noted that the labels of the 10 chosen boxes were identical for two of the three codes, but the third code (for the producer) differed. The inspector took 10 pears from the primary sample and put them into a plastic bag, which was sealed and labelled. The inspector recorded only the two identical codes in the sampling report, which was completed in triplicate. The inspector did not take a reference sample, nor did he offer to take a reference sample to the representative of the importer.

5.3.2.4. Reporting of controls:

Regarding the reporting of controls, see section 5.3.1.3.

5.3.2.5. Follow-up of controls:

When MRL exceedances are detected the MRDF decides on possible infringements taking account of a generic analytical uncertainty of 50%. Fines are imposed following the same procedure as for products on the domestic market (see section 5.3.1.4).

Additionally, all CAs responsible for controls at the point of import are requested by the MRDF to sample subsequent consignments received by the importer. These consignments can be released into free circulation only when the analytical results are available and show that the consignments comply with MRL legislation. Non-compliant produce has to be rejected. The mission team was informed that no such case has so far occurred.

5.3.3. *Control of the marketing and use of illegal pesticides and of the illegal use of pesticides*

To prevent the import of illegal pesticides, importers of active substances and plant protection products are required to obtain an import licence from the MRDF. Customs officers have to check and verify the licence when the products are imported and notify the import to the MRDF.

The current analytical range of the laboratories carrying out pesticide residue controls is not sufficient to detect illegal pesticides. Illegal uses have been detected in some commodities (see also section 5.3.1.4).

Additionally, the mission team was informed by representatives of the MRDF that the sale or use of illegal pesticides is occasionally detected during inspections of marketing and use.

5.4. Laboratories for pesticide residue analysis

5.4.1. *Organisation:*

Pesticide residue analysis for the follow-up of infringements and the national monitoring programme is carried out in the 8 RCPPQC laboratories, the BPI and the GCSL, of which currently the BPI and the GCSL laboratory are accredited. For those non-accredited laboratories which were not visited during the mission it was not possible to establish if they have initiated and are pursuing the necessary accreditation procedures and provide satisfactory guarantees that quality control schemes for analyses they conduct for the purpose of official controls are in place.

It was noted that not all laboratories regularly take part in relevant proficiency tests and that the range of analysis only covers approximately 10 to 111 substances. Despite such limitations, all laboratories contribute results for the Greek monitoring report sent to the EU.

The laboratories at Ioannina and Piraeus carry out analyses for the coordinated EU monitoring programme. Together, the two laboratories are only able to cover slightly more than 60% of the analytes necessary to cover the active substances included in the Recommendation for the 2007 EU coordinated monitoring programme.

The RCPPQC laboratory in Piraeus and the GCSL have been designated for analysis of baby food of plant origin. Neither laboratory has the analytical capacity to fully enforce the directives for baby food as the range of analytes is not broad enough and the limits of quantification for a number of pesticides are not sufficiently low. The mission team was informed that the GCSL has purchased LC-MS/MS equipment, and once the method is fully implemented the situation will improve.

The BPI has been appointed as the NRL for pesticide residue analysis in fruits and vegetables. Together with the GCSL, the BPI is the NRL for pesticide residue analysis in cereals and for single residue methods. The contact point for Greece for all three areas is the BPI laboratory, but details concerning distribution of tasks and coordination between the NRLs have not been decided.

5.4.2. Laboratories visited during the mission:

The mission team visited two laboratories, the RCPPQC laboratory in Thessaloniki and the BPI laboratory. Both laboratories are currently only carrying out analysis for pesticides residues, but the BPI is also planning to analyse polyaromatic hydrocarbons in future. The staff have additional duties, particularly taking samples (see section 5.3.1.2).

5.4.2.1. Resources and training:

Both laboratories are located in buildings which have been refurbished to up-to-date standards.

The Thessaloniki laboratory is equipped with 3 GCs with conventional detectors (ECD, NPD and TSD). Confirmatory analysis is limited by the lack of GC-MS instruments. The BPI is equipped with GCs with conventional detectors and GC/MS. LC-MS/MS systems have been recently purchased for both laboratories, but are not yet operational.

Six persons are involved in pesticide residue analysis at the laboratory in Thessaloniki. Three of them are on a temporary contract. In the BPI, two of the eight staff involved in residue analysis are on temporary contracts. The mission team was informed that this situation causes a high turn-over of staff as staff are rather on training than available for routine analysis.

The staff at both laboratories participates regularly in quality control exercises and in trainings on specific analytical instruments and topics.

The capacity of the laboratories is 400 – 500 samples per year.

5.4.2.2. Analysis:

The laboratory in Thessaloniki has implemented two GC methods for determination of pesticides, which will be covered by accreditation (see also section 5.4.2.4). One method uses ECD and the other TSD or NPD detection. For the confirmation of positive findings, the different column approach is used.

Extraction methods without additional clean-up (for NPD/TSD compounds) and/or with clean-up (for ECD compounds) are used for sample preparation. Currently, the methods cover 92 substances. It is expected that the LC-MS/MS method will be implemented and validated by the end of this year.

The BPI laboratory uses four accredited methods for the determination of pesticides in foodstuffs. The methods are based on GC determination of residues on conventional detectors (ECD and NPD) with confirmation by GC/MS.

A multi-residue method based on extraction with mixture of acetone-dichloromethane-petroleum ether without additional clean-up is used for 111 of ECD and NPD compounds. Validation for an additional 25 analytes using LC-MS/MS is in process.

The range of analysis of both laboratories is below the average of 135 analytes in laboratories which participated in the EU monitoring programme in 2004. It does not cover the range of pesticides authorised in Greece, the range of substances with harmonised MRLs or the full range of substances in the EU Co-ordinated programme.

5.4.2.3. Quality assurance system:

The accreditation process under ISO 17025 is well advanced in the laboratory in Thessaloniki. The quality system is well-established and written standard operation procedures for analysis of pesticide residues are in place. The BPI laboratory has been accredited for pesticide analysis to ISO 17025 since 2002.

Both laboratories are in the process of implementing the SANCO guidelines for 'Quality Control Procedures for Pesticide Residue Analysis'. The methods for pesticide residues are only partly validated. Representative matrices are selected, but methods are not validated for all compounds in the scope. Matrix-matched standards for quantification and single-level (Thessaloniki) or bracketing (BPI) calibrations are used. Checks for the lowest calibration level and recovery checks are carried out for fewer than 10 representative analytes in both laboratories, though not regularly in Thessaloniki.

Both laboratories regularly took part in the EU Proficiency Tests (EU PT 5, 6, 7 and 8) with good results, but not all analytes were sought. The BPI occasionally takes part in other relevant proficiency tests.

Calculation of the analytical uncertainty is based on the intra-laboratory standard deviation in both laboratories, but the calculation is not always performed and reported in the Thessaloniki laboratory. A default value of 50% is reported by the BPI laboratory.

5.5. Follow-up on previous missions

The report for the previous mission identified some shortcomings. The following table lists the recommendations and indicates how the recommendations have been addressed by the Competent Authorities.

Recommendations of DG/SANCO 7333/2004	Follow-up in SANCO 2007/7218
<p>(1) The competent authorities should continue to establish a co-ordinated and comprehensive control plan and associated procedures for the marketing and use of plant protection products and assign sufficient trained staff to implement the controls, including follow-up, in accordance with Article 17 of Council Directive 91/414/EEC. The competent authority should provide the equipment and documentation necessary to carry out the controls.</p>	<p>Partly addressed.</p> <p>A general program from 2003 is still in place. The mission team was informed by an MRDF representative that the number of inspectors has not changed. A check list for carrying out controls is in place. Training in plant protection and pesticide residues is being provided for inspectors.</p> <p>A revised recommendation is made to the competent authorities in Chapter 8.</p>
<p>(2) The competent authorities should ensure that all plant protection products on the Greek market are classified and labelled fully in accordance with Directive 1999/45/EC of the European Parliament and of the Council.</p>	<p>Addressed.</p>
<p>(3) The competent authorities should ensure that the annual report to the Commission, in the framework of Article 17 of Council Directive 91/414/EEC, includes results from all regions.</p>	<p>Partly addressed.</p> <p>75% of the PDRDs have reported to the MRDF on the controls carried out in 2006.</p> <p>A revised recommendation is made to the competent authorities in Chapter 8.</p>
<p>(4) The competent authorities of Greece should ensure that MRLs are established for all the active substances authorised.</p>	<p>Obsolete.</p> <p>Harmonised or temporary MRLs will be in place for all active substances registered in the EU, once Regulation (EC) No 396/2005 is fully in force. National MRLs have been notified to the Commission for inclusion in the Regulation.</p>
<p>(5) The competent authorities should ensure that a co-ordinated plan is operated so that all food of plant origin, including baby food, is monitored for pesticide residues at market level and that, in cases of non-compliance, appropriate enforcement measures are taken.</p>	<p>Addressed.</p>
<p>(6) The competent authorities should ensure that all laboratories involved in the official control of pesticide residues in food of plant origin achieve accreditation without delay. They should also ensure that participation in the co-ordinated Community monitoring programme is restricted to laboratories which are accredited and which have participated in a previous round, or which will participate in the next round, of the European Proficiency testing).</p>	<p>Partly addressed.</p> <p>Although some progress in the accreditation process has been achieved, still only 2 of 10 laboratories involved in the official control of pesticide residues in food of plant origin have achieved accreditation. Not all laboratories regularly participate in European Proficiency tests.</p> <p>A revised recommendation is made to the competent authorities in Chapter 8.</p>
<p>(7) The competent authorities should ensure effective monitoring for pesticide residues by providing additional resources and training and by substantially increasing the range of pesticide substances, and their metabolites, being sought, so as to better reflect those substances being</p>	<p>Partly addressed.</p> <p>Training for staff has been provided and new equipment has been purchased in the laboratories visited.</p> <p>The range of analytes has been increased, but a</p>

Recommendations of DG/SANCO 7333/2004	Follow-up in SANCO 2007/7218
marketed and used.	further increase is required. A revised recommendation is made to the competent authorities in Chapter 8.
(8) Decisions on non-compliant samples should take account of the analytical uncertainty, in accordance with Commission Directive 2002/63/EC, Annex I, point 5. In addition, the full implementation of the EU guidelines 3103/2000 (as revised by document 10476/2003) and 825/00, rev. 7 concerning quality control procedures for pesticide residue analysis is encouraged.	Partly addressed. The MRDF takes account of analytical uncertainty in deciding on non-compliant samples. The laboratories visited mostly follow Guidelines Document No SANCO/10232/2006 which supersedes Document no SANCO/10476/2003. A revised recommendation is made to the competent authorities in Chapter 8.
(9) In cases of MRL infringements, the competent authorities should put in place systematic follow-up procedures to ensure that enforcement and follow-up actions are taken efficiently and effectively.	Addressed.
(10) The competent authorities should draft written procedures for the functioning of the Rapid Alert System for Food and Feed in Greece, and consider taking into account the draft "Proposal on notification criteria for pesticide residues findings to the Rapid Alert System for Food and Feed (RASFF)" (SANCO/3346/2001, as amended).	Partly addressed. EFET's written procedures for the operation of the RASFF system do not include a reference to the current version of the Draft guidance document SANCO/3346/2001 (current version: rev. 7). A revised recommendation is made to the competent authorities in Chapter 8.

6. CONCLUSIONS

6.1. Transposition and implementation of legislation

- (1) Relevant legislation is mostly in place. Two MRL Directives have not been transposed. Some of the MRLs established by Directive 88/298/EEC are still relevant.

6.2. Competent authorities

- (2) The competent authorities for the control of pesticide residues in domestic and imported produce of plant origin are clearly identified.
- (3) While vertical communication within the Ministry of Rural Development and Food is working well, some deficiencies concerning communication and coordination between competent authorities involved in the control of pesticide residues have been found, particularly between EFET and the MRDF. This is not in compliance with Article 4 (3) of Regulation (EC) No 882/2004 which requires efficient and effective co-ordination between all competent authorities carrying out official controls.
- (4) Adequate training on plant protection and pesticide residues for inspectors carrying out sampling for analysis of pesticide residues has started in 2006.

- (5) No internal audits have yet been implemented by MRDF or EFET for their control bodies, although this is required by Article 4 (6) of Regulation (EC) No 882/2004.

6.3. Implementation of controls

6.3.1. Control activities for pesticide residues

- (6) A national plan for the control of pesticide residues is established annually.
- (7) Recommendations of the Greek CAs for the frequency of the sampling of consignments at point of import are not followed by the regional CA in Piraeus.
- (8) Some written procedures for carrying out controls for pesticide residues are in place.
- (9) The sampling procedures observed were substantially in line with Directive 2002/63/EC. However, during a sampling procedure at the point of import the inspector identified the lot incorrectly. This can lead to misleading analytical results and cause problems in tracing back the consignment in the Third Country in question.
- (10) In one of the regions visited reference samples are not taken or the taking of such samples is not offered to the representative of the business, whereas Article 11 (6) of Regulation (EC) No 882/2004 requires the CA to ensure that feed and food business operators can obtain sufficient numbers of samples for a supplementary expert opinion.
- (11) All results of controls and analyses are systematically reported by all laboratories to the CCAs.
- (12) The low number of analytes sought in the laboratories explains the low number of exceedances detected and thus limits the effectiveness of the controls.
- (13) The follow-up of non-compliant consignments is effective and appropriate.
- (14) Written procedures for the operation of the RASFF system are in place but do not include instructions for carrying out a risk assessment and criteria for the notification of pesticide residue findings as specified by the "Draft guidance document on notification criteria for pesticide residue findings to the Rapid Alert System for Food and Feed system" (SANCO/3346/2001, rev. 7).

6.3.2. Controls of the marketing and use of illegal pesticides and the illegal use of pesticides

- (15) A system is in place to control the import of illegal pesticides.
- (16) The limited range of analysis in the pesticide residue laboratories is not sufficient for systematic control of the use of illegal pesticides, but allows occasional detection of illegal use of pesticides.

6.4. Laboratories for pesticide residue analysis

- (17) National Reference Laboratories have been appointed, but details of coordination between the laboratories have not been clarified, although Article 33 (5) of Regulation (EC) No 882/2004 requires Member States that have more than one national reference laboratory for a Community reference laboratory to ensure that these laboratories work closely together, so as to ensure efficient coordination between them, with other national laboratories and the Community reference laboratory.
- (18) Only 2 of the 10 laboratories involved in the official control of pesticide residues are accredited. Not all laboratories regularly take part in relevant proficiency tests. For those non-accredited laboratories which were not visited during the mission it was not possible to evaluate if they come under the derogation provided for in Article 18 of Commission Regulation (EC) No 2076/2005. The laboratory in Thessaloniki fulfils Article 18 (a), but does not fully comply with Article 18 (b) (see (23)).
- (19) For all the laboratories, the range of pesticides sought during analysis is too limited to fully enforce compliance with the pesticide residue.
- (20) In the laboratories carrying out analysis of baby food, the limits of quantification for a number of pesticides are not sufficiently low and the range of pesticides too narrow to permit implementation of Directive 2006/125/EC and Directive 91/321/EC regarding foodstuffs for infants and young children.
- (21) The number of samples analysed annually is restricted by additional duties and the high turn-over of staff.
- (22) Both laboratories visited have adequate facilities and up-to-date instrumentation, and the staff are experienced and well-trained.
- (23) SANCO Guidelines for Quality Control Procedures are mostly followed in the laboratories visited, but analytical methods are only partly validated.

6.5. Follow-up of previous mission

- (24) In total, 10 recommendations had been made: 3 have been fully addressed, 6 have been partly addressed and one is obsolete due to changed legislation.

6.6. Overall conclusion

A control system for pesticide residues in food of plant origin is in place. However, its effectiveness is limited especially because of the insufficient range of pesticides covered by the analytical methods applied and the incomplete quality control procedures and lack of accreditation in many of the laboratories.

Progress has been achieved in many areas since the last mission, but further progress is required in other areas such as communication, cooperation and written procedures.

7. CLOSING MEETING

A closing meeting was held on 20 April 2007 with representatives of the MRDF, EFET, the MEFA, the RCPPQC in Piraeus and the GCSL. At this meeting, the initial findings and conclusions of the mission were presented by the inspection team. The representatives of the CAs provided some clarifications and comments on the initial findings and conclusions presented.

8. RECOMMENDATIONS TO THE COMPETENT AUTHORITIES OF GREECE

Recommendations (1), (2), (6), (10) and (11) also relate to deficiencies found in the 2004 mission. Recommendations made by this mission have been revised to take account of the progress made since the last mission and the introduction of new legislation.

- (1) The CAs should continue to establish a co-ordinated and comprehensive control plan for the marketing and use of plant protection products and assign sufficient staff to implement the controls, including follow-up, in accordance with Article 17 of Council Directive 91/414/EEC.
- (2) The CAs should ensure that the annual report to the Commission, under Article 17 of Council Directive 91/414/EEC, is complete.
- (3) The CAs should transpose amendments to Directives 76/895/EEC, 86/362/EEC and 90/642/EEC on pesticide MRLs within the required timelines.
- (4) The CAs should implement audit systems as required by Article 4 (6) of Regulation (EC) No 882/2004.
- (5) The CAs should ensure there is efficient and effective co-ordination between all competent authorities carrying out official controls in accordance with Article 4 (3) of Regulation (EC) No 882/2004.
- (6) The CAs should ensure that that EFET's written procedures for the operation of the RASFF system include instructions for carrying out a risk assessment and criteria for the notification of pesticide residue findings as specified by the "Draft guidance document on notification criteria for pesticide residue findings to the Rapid Alert System for Food and Feed system" (SANCO/3346/2001, rev. 7).
- (7) The CAs should ensure that they take account of the reliability of food business operators' own checks when carrying out official controls as stipulated in Article 3 (1) (c) of Regulation (EC) No 882/2004.
- (8) The CAs should ensure that feed and food business operators can obtain sufficient numbers of samples for a supplementary expert opinion as required by Article 11 (6) of Regulation (EC) No 882/2400.
- (9) The CAs should ensure that the national reference laboratories work closely together, so as to ensure efficient coordination between them, with other national laboratories and the Community reference laboratories in accordance with Article 33 (5) of Regulation (EC) No 882/2004.

- (10) The CAs should ensure that all designated laboratories comply with Article 12 of Regulation (EC) No 882/2004, or come under the derogation provided for in Article 18 of Commission Regulation (EC) No 2076/2005. The laboratories could put in place the SANCO guidelines for 'Quality Control Procedures for Pesticide Residue Analysis' (Document No SANCO/10232/2006) which also foresees regular participation in relevant proficiency tests.
- (11) The CAs should consider substantially increasing the range of analytes including metabolites covered by their analytical methods for pesticide residues in food of plant origin, so as to better reflect the substances that are marketed and used and to ensure effective implementation of Article 7 of Directive 86/362/EEC, Article 4 of Directive 90/642/EEC and Article 7 Directive 2006/125/EC. They should ensure that analytical methods used comply with Article 11 of Regulation (EC) No 882/2004 and for the analysis of baby food with Article 7.2 of Directive 2006/125/EC.

The CA of Greece is invited to send to the Commission, within 25 working days of receipt of the report, an action plan in response to the recommendations. This action plan should clearly set out the manner and deadline by which the competent authorities will address each recommendation.

9. COMPETENT AUTHORITY RESPONSE TO RECOMMENDATIONS

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

http://ec.europa.eu/comm/food/fvo/ap/ap_greece_7218_2007.pdf, as soon as this report is published.

ANNEX 1 - LEGISLATION

European Legislation	Official Journal	Title
Directive 76/895/EEC	OJ L 340, 09/12/1976, p. 0026 – 0031	Council Directive 76/895/EEC of 23 November 1976 relating to the fixing of maximum levels for pesticide residues in and on fruit and vegetables.
Directive 79/117/EEC	OJ L 33, 08/02/1979, p. 0036 – 0040	Council Directive 79/117/EEC of 21 December 1978 prohibiting the placing on the market and use of plant protection products containing certain active substances.
Directive 86/362/EEC	OJ L 221, 07/08/1986, p. 0037 – 0042	Council Directive 86/362/EEC of 24 July 1986 on the fixing of maximum levels for pesticide residues in and on cereals.
Directive 88/298/EEC	L 126 , 20/05/1988, p. 0053 - 0054	Council Directive 88/298/EEC of 16 May 1988 amending Annex II to Directives 76/895/EEC and 86/362/EEC relating to the fixing of maximum levels for pesticide residues in and on fruit and vegetables and cereals respectively
Directive 89/186/EEC	OJ L 066 , 10/03/1989, p. 0036 - 0036	Council Directive 89/186/EEC of 6 March 1989 amending Annex II to Directive 76/895/EEC relating to the fixing of maximum levels for pesticide residues in and on fruit and vegetables
Directive 90/642/EEC	OJ L 350, 14/12/1990, p. 0071 – 0079	Council Directive 90/642/EEC of 27 November 1990 on the fixing of maximum levels for pesticide residues in and on certain products of plant origin, including fruit and vegetables.
Directive 91/321/EEC	OJ L 175, 04/07/1991, p. 0035 – 0049	Commission Directive 91/321/EEC of 14 May 1991 on infant formulae and follow-on formulae.
Directive 91/414/EEC	OJ L 230, 19/08/1991, p. 0001 - 0032	Council Directive 91/414/EEC of 15 July 1991 concerning the placing of plant protection products on the market.
Directive 1999/45/EC	OJ L 200, 30/07/1999, p. 0001 – 0068	Directive 1999/45/EC of the European Parliament and of the Council of 31 May 1999 concerning the approximation of laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations,
Regulation (EC) No 645/2000	OJ L 78, 29/03/2000, p. 0007 - 0009	Commission Regulation (EC) No 645/2000 of 28 March 2000 setting out detailed implementing rules necessary for the proper functioning of certain provisions of Article 7 of Council Directive 86/362/EEC and of Article 4 of Council Directive 90/642/EEC concerning the arrangements for monitoring the maximum levels of pesticide residues in and on cereals and products of plant origin, including fruit and vegetables, respectively.
Regulation (EC) No 178/2002	OJ L 31, 01/02/2002, p.0001 - 0024	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.
Directive 2002/63/EC	OJ L 187, 16/07/2002, p. 0030 - 0043	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.
Regulation (EC) No 882/2004	OJ L 165, 30/04/2004. Corrected and re-published in OJ L 191, 28/05/2004 p. 0001 - 0052	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.
Regulation (EC) No 2076/2005	OJ L 338, 22/12/2005, p. 0083 - 0088	Commission Regulation (EC) No 2076/2005 of 5 December 2005 laying down transitional arrangements for the implementation of Regulations (EC) No 853/2004, (EC) No 854/2004 and (EC) No 882/2004 of the European Parliament and of the Council and amending Regulations (EC) No 853/2004 and (EC) No 854/2004.
Regulation (EC) No 396/2005	OJ L 70, 16/03/2005. p. 0001 - 0016	Regulation (EC) No 396/2005 of the European Parliament and of the Council of 23 February 2005 maximum residue levels



European Legislation	Official Journal	Title
		of pesticide in or on food and feed of plant and animal origin and amending Council Directive 91/414/EEC.
Directive 2006/92/EC	OJ L 311, 27/11/2006, p.. 0031 – 0045	Commission Directive 2006/92/EC of 9 November 2006 amending Annexes to Council Directives 76/895/EEC, 86/362/EEC and 90/642/EEC as regards maximum residue levels for captan, dichlorvos, ethion and folpet
Directive 2006/125/EC	OJ L 339. 05/12/2006, p. 0016 - 35	Commission Directive 2006/125/EC of 5 December 2006 on processed cereal-based foods and baby foods for infants and young children
Recommendation 2007/225/EC	OJ L 96, 03/04/2007, p. 0021 - 0027	Commission Recommendation 2007/225/EC of 3 April 2007 concerning a coordinated Community monitoring programme for 2007 to ensure compliance with maximum levels of pesticide residues in and on cereals and certain other products of plant origin and national monitoring programmes for 2008.