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FINAL REPORT OF AN AUDIT

CARRIED OUT IN

TURKEY

FROM 11 TO 19 APRIL 2013

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

Executive Summary

This report describes the outcome of a Food and Veterinary Office (FVO) audit in Turkey, carried out between 11 and 19 April 2013. The objective of the audit was to assess controls on pesticide residues in peppers intended for export to the European Union.

In particular, the audit team followed up on action taken by the Competent Authorities (CAs) in response to the recommendations made by the FVO in report DG (SANCO) 2011-6029.

A broad range of comprehensive steps have been taken to strengthen the official controls on pesticide residues, including the support of Integrated Pest Management, the ongoing alignment of Plant Protection Products authorisations and Maximum Residue Levels (MRLs) with the EU legislation, substantial pre and post harvest sampling and export control programmes. Despite these measures there remain some findings of toxic pesticides by EU border controls, mainly in peppers. The MRL exceedances can be explained by the high number of small producers with outdated greenhouses, who do not sufficiently apply integrated control methods. In addition, the lack of private controls is a further constraint for ensuring compliance with the EU standards. Minor weaknesses were found in relation to the organisation of the laboratory network and the scope of analytes in the laboratories.

The report makes a number of recommendations to the competent authorities, aimed at rectifying the shortcomings identified and enhancing the implementation of control measures.

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ABBREVIATIONS AND DEFINITIONS USED IN THIS REPORT

Abbreviation	Explanation
CA(s)	Competent Authority(ies)
CAC/GL	Codex Alimentarius Commission/Guideline
CCA(s)	Central Competent Authority(ies)
CODEX	Codex Alimentarius Commission of the Food and Agriculture Organization of the United Nations and World Health Organization
DG(SANCO)	Health and Consumers Directorate-General
EKÜY	Turkish Integrated and Controlled Crop Management Project
EU	European Union
FAO	Food and Agriculture Organisation
FAPAS	Food Analysis Performance Assessment Scheme
FBO	Food Business Operator
FVO	Food and Veterinary Office
GAP	Good Agricultural Practice
GC-MS	Gas Chromatograph coupled to Mass Spectrometer
GC-MS/MS	Gas Chromatograph coupled to tandem Mass Spectrometers
GDFC	General Directorate of Food and Control
IPM	Integrated Pest Management
ISO	International Organisation for Standardisation
LC-MS/MS	Liquid Chromatograph coupled to tandem Mass Spectrometers

MFAL	Ministry of Food, Agriculture and Livestock
MRL	Maximum Residue Level
MS(s)	Member State(s)
NRL	National Reference Laboratory
PPP(s)	Plant Protection Product(s)
PRB	Producers Registration Book
PT	Proficiency test
RASFF	Rapid Alert System for Food and Feed
TC(s)	Third Country(ies)
WHO	World Health Organisation

1 INTRODUCTION

The audit took place in Turkey from 11 to 19 April 2013 in order to assess controls on pesticide residues in food of plant origin intended for export to the European Union (EU). The audit team comprised two auditors from the Food and Veterinary Office (FVO) and one Member State (MS) expert.

The audit was undertaken as part of the FVO's annual audit programme in the context of a wider series of audits in third countries (TCs) to evaluate control systems and operational standards in this sector.

The FVO team was accompanied during the audit by representatives of the Central Competent Authority (CCA), the General Directorate of Food and Control (GDFC) of the Ministry of Food, Agriculture, and Livestock (MFAL).

An opening meeting was held on 11 April 2013 with representatives of the GDFC. At this meeting, the objectives of, and itinerary for, the audit were confirmed, and additional information required for the satisfactory completion of the audit was requested.

2 OBJECTIVES AND SCOPE

The **objective** of the audit was to:

- follow-up on the recommendations of the audit DG(SANCO) 2011-6029 from 12 to 18 April 2011, in order to assess whether the systems in place for the control of pesticide residues in foodstuffs of plant origin intended for export to the EU offer adequate assurance that the produce concerned is within the specified residue limits laid down in EU legislation.

In terms of **scope**, the audit reviewed the controls in place on the production and export, including a review of national legislation, competent authority (CA) organisation, their controls and enforcement capability, facilities (laboratory capability) and measures in place for the determination of pesticide residues. As the residue controls are directly related to the national rules governing the authorisation and use of Plant Protection Products (PPPs), the control systems in this area were also part of the audit. As regards products concerned, the audit covered peppers.

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

Competent Authority		Comments
Central	1	GDFC, Ankara
Regional/local	2	Provinces of Antalya and Mersin
Laboratory/ies		
Public Laboratories	1	Antalya Food Control Laboratory
Private Approved Laboratories	2	Mersin

Producers		
	3	Two growers of peppers in Antalya and one in Mersin
Exporters/Pack-Houses		
	2	One exporter in Antalya and one in Mersin

3 LEGAL BASIS AND STANDARDS

3.1 LEGAL BASIS

The audit was carried out under the general provisions of EU legislation, in particular Article 46 of Regulation (EC) No 882/2004 of the European Parliament and of the Council which stipulates that EU controls in third countries may verify compliance or equivalence of TC legislation and systems with EU feed and food law and EU animal health legislation. These controls shall have particular regard to the assurances which the TC can give regarding compliance with, or equivalence to, EU requirements.

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

3.2 STANDARDS

Additionally, Guidelines and Codes of Practice of the Codex Alimentarius Commission of the Food and Agriculture Organization of the United Nations and World Health Organisation (CODEX) were taken into account in the framework of the audit.

A full list of applicable standards referred to in this report is provided in Annex 2. Reference to specific provisions of these texts is provided at the beginning of each section.

4 BACKGROUND

The FVO has carried out audits in a number of exporting countries to assess official controls for pesticide residues in food of plant origin originating from these countries. The reports on these audits are available on DG(SANCO)'s internet site at http://ec.europa.eu/food/fvo/ir_search_en.cfm. An overview report summarising findings and conclusions of these missions has also been published at this site:

http://ec.europa.eu/food/fvo/specialreports/2010_6140_tc_pesticides_fn_en.pdf

This was a follow-up to the audit DG(SANCO) /2011-6029 on controls on pesticides in food of plant origin. The report of the audit contained recommendations to the CAs of Turkey, and an action plan was received, which was considered not entirely satisfactory to address the recommendations of the report. The Turkish CA was recommended to consider a more systematic approach in terms of planning and performance of official controls on the use of PPPs, to provide guarantees that the produce complies with EU standards, to consider broadening the scope of analytes and the evaluation or accreditation of the laboratories, and to extend the Integrated and Controlled

Management of Products Project.

According to Annex I of Regulation (EC) No 669/2009 peppers from Turkey imported to the EU are regularly checked by the CAs of the MSs.

Information of foodstuffs found to have public health implications are disseminated as alert notifications through the EU Rapid Alert System for Food and Feed (RASFF) to all MS and to the exporting country. In the case of peppers from Turkey the notifications relate to the active substances formetanate, procymidone, clofentezine, tetradifon, malathion, oxamyl, methomyl, carbendazim and tolfenpyrad. In 2012, 48 notifications and in 2013, until the time of the audit, 14 notifications relating to peppers from Turkey had been notified through the RASFF.

Because of the number of RASFF notifications regarding pesticide residues in 2010-2012, and the toxicity of the active substances in these residues, particularly for peppers, the Director General for Health and Consumers of the EU asked the Turkish CA in a letter sent on 20 December 2012 to submit an action plan to address the shortcomings. On 7 February 2013 the Turkish CA presented an action plan. The action plan included strengthening of official controls and terminating the use of PPPs containing certain active substances. The implementation of the action plan was reviewed during the course of the audit.

5 FINDINGS AND CONCLUSIONS

5.1 RELEVANT NATIONAL LEGISLATION

Legal requirements

Art. 46 (1) (a) of Reg. (EC) No 882/2004 stipulates that EU controls shall have, inter alia, particular regard to the legislation of the TC.

Findings

Law No 5996 on veterinary services, plant health, food and feed, in force from 11 December 2010 is the primary law regarding food safety issues.

The secondary Regulation on keeping records and monitoring PPPs used in plant protection, published in the Official Gazette No 28123 and in force from 25 November 2011, requires that the CAs shall carry out inspections on the use of PPPs, take samples, keep records on the use of PPPs, and shall carry out education, training, and promotion campaigns to promote healthy produce with no pesticide residues. Producers shall apply PPPs in accordance with recommendations of the Ministry, retain invoices and keep records on the use of PPPs. Retailers of PPPs shall keep records on the sale of PPPs and only sell PPPs in compliance with the Regulation on Rules and Principles of Prescribed Sale of PPPs which is in force from 21 April 2011.

Maximum Residue Levels (MRLs) are regulated in the Turkish Food Codex Maximum Residue Limits Regulation of 29 December 2011. The MRLs for formetanate and malathion were aligned with the EU MRLs.

Laboratories are authorised in accordance with the Regulation on the Establishment of Foundation,

Duties, Authorizations, Responsibilities, Working Principles and Procedures of 29 December 2011.

Law No 5957 of 26 October 2010, in force from 1 January 2012, regulating the trade of, among others, fruits and vegetables allows exporters to purchase, after notifying the CA, directly from producers. Under previous legislation it was obligatory to buy on wholesale markets.

Conclusions

Since the last audit in 2011 legislation has come into force on controls, record keeping and education on the use of PPPs and the requirement for a prescription for the sale of PPPs. A more direct marketing system for fruit and vegetables for export to the EU allows better traceability. This improves controls by the authorities on the use of PPPs and the presence of residues, and allows the private sector to improve their own control systems.

5.2 COMPETENT AUTHORITIES

Legal Requirements

Art. 46 (1) (b) and (c) of Reg. (EC) No 882/2004 stipulate that EU controls shall have, inter alia, particular regard to the organisation of the TC's CAs, their powers and independence, the authority they have to enforce the applicable legislation effectively, and the training of staff in the performance of official controls.

Findings

The GDFC under the MFAL is the main CA within the scope of the audit. At central level there are 347 staff. The Department of PPPs and the Department of Plant Health and Quarantine are responsible for authorisation of PPPs and pre-harvest controls. The Department of Food Control and Laboratories is responsible for post-harvest controls. A total of 81 provincial directorates are responsible for the implementation of the control activities. In Turkey 4 819 staff are responsible for food safety issues and 3 554 staff are working on phytosanitary issues. All are graduated as agricultural or food engineers, or veterinarians. Training programmes were presented to the audit team.

Conclusions

CAs are clearly designated and staff are well trained.

5.3 OFFICIAL CONTROLS OF THE MARKETING AND USE OF PLANT PROTECTION PRODUCTS

Legal requirements

Article 46 (1) (e) and (b) of Regulation (EC) No 882/2004 stipulate that EU controls shall have, inter alia, particular regard to the existence and operation of documented control procedures and control systems based on priorities, and the CA's capability to enforce applicable legislation;

Article 10 of Regulation (EC) No 852/2004, in conjunction with Article 4.1 and Annex I, Part A.III

of the same Regulation, require, inter alia, that Food Business Operators (FBOs) producing or harvesting plant products keep records on any use of PPPs.

Findings

5.3.1 Authorisation of Plant Protection Products

A total of 5 628 PPPs were authorised in Turkey, containing 333 active substance. The list of active substances has been mostly aligned with the pesticides approved in the EU, and at the time of the audit, only 23 active substances contained in authorised PPPs in Turkey were not approved in the EU. For 17 of these, a decision has been taken by the GDFC to stop marketing and use in a step-by-step process ending on 31 December 2014. The six remaining substances, which are not approved in the EU are cyclanilide, diflovidazin, dimethyl disulphide, indaziflam, novaluron and polyoxin.

Detailed information was given by the GDFC on the authorisations of PPPs containing pesticides subject to EU RASFF notifications for peppers:

The use-up period of all PPPs containing procymidone ended on 31 August 2011, according to the regional CA in Antalya. The use of procymidone in early 2011 was recorded by a grower in Antalya. However, the GDFC informed the audit team that the authorised use of PPPs containing procymidone had ended in the year 2010.

The GDFC informed the audit team that the use of PPPs containing formetanate on peppers was forbidden from 26 December 2012, and that provincial directorates were instructed accordingly. The use of formetanate on peppers was recorded by a grower in Mersin on 14 February 2013, and the regional CA stated that the use of formetanate on peppers was allowed until 1 March 2013.

The production and import of tetradifone was banned from 30 June 2010, with a use-up period until 31 August 2011.

Production and import of PPPs containing oxamyl was banned from 1 June 2012, with a use-up period of two years. Recommendations for the use of PPPs containing oxamyl on tomatoes, cucumber and pepper were cancelled as of 1 July 2010.

Recommendations on the use of PPP containing methomyl on pepper (glass-house), cherry, cucumber, cauliflower, corn and orchard were cancelled on 10 January 2011, and recommendations on use on tomatoes were cancelled on 25 March 2011 .

The use of PPPs containing clofentezine was not authorised on peppers.

5.3.2 Control of Growers

In the report from the previous FVO audit DG(SANCO)/2011-6029, a recommendation was made to the CAs *to consider establishing a more systematic approach in terms of planning and performance of official controls on the use of PPPs* .

A pre-harvest inspection programme for the use of PPPs was initiated for the first time in 2012. The GDFC informed the audit team that 6 923 samples of 27 commodities were taken in 2012, with 199 of the samples exceeding MRLs. 564 samples within this programme were taken in 2012 in the region of Antalya, 136 samples of peppers were taken in Mersin, in addition to samples of other commodities.

A multi-annual control plan for pesticide residues for 2013-2015 has been approved by GDFC, which includes a risk-based plan for taking samples before the harvest to be analysed for pesticide residues. The control plan also includes instructions for sampling. It does not contain instructions for controls on further national requirements, e.g. the record keeping of use of PPPs or certification of users of PPPs. However, a draft inspection form was drawn up in the Mersin region.

In the report from the previous FVO audit DG(SANCO)/2011-6029, a recommendation was made to the CAs *to consider extending the Integrated and Controlled Crop Management Project (EKÜY) in order to cover more provinces, commodities and analytes sought.*

The EKÜY project was carried out in 8 551 orchards, fields and greenhouses belonging to 8 044 producers in 29 provinces in 2011, and on 18 400 hectares with 6 948 producers in 24 provinces in 2012. The EKÜY project included certification to a defined standard and was supported by the Food and Agriculture Organisation (FAO). It has been carried out in collaboration with the Central Union of Agricultural Credit Cooperatives. In the Antalya region visited by the audit team, 620 greenhouse growers producing on 356 hectares were certified to this standard. The total greenhouse production in this region covers 22 000 hectares. In the Mersin region, 214 greenhouse growers producing on 174 hectares were certified, compared to a total greenhouse area of 15 000 hectares in this region.

The GDFC has also promoted the use of biological control. There was a financial support of approximately 800 Euros per hectare in 2011, which increased to 1 700 Euros in 2012. In total, 2 819 producers on 6 600 hectares were supported in 2012. In the Antalya region visited, biological control was being started on 500 of the 22 000 hectares of greenhouses. The CA in the Mersin region stated that biological control is generally not implemented in greenhouses due to structural problems. The audit team visited two growers of peppers in greenhouses in the Antalya region, which had been subject to EU RASFF notifications. These growers had started implementing biological control with the support of the CA. Their greenhouse area covered 0.5 and 1.5 hectares, respectively. The greenhouses were not suitable for biological control for the following reasons: they were open, they were close to neighbouring growers without biological control, the height was too low and this did not allow the entry of tractors. In addition, the structure did not allow effective solarisation.

A requirement of the Regulation on Monitoring and Record Keeping of Plant-Protector Products is that producers and product purchasers are obliged to use a Producers Record Book (PRB) for pesticide applications. A total of 2 525 000 PRBs have been provided to the growers. In order to promote the use of PRBs, 1 873 000 guide-books for farmers, 300 000 sign-boards, 600 000 leaflets on six different subjects, and 4 000 DVDs on 4 different subjects have been distributed to the producers free of charge. The CA estimates that one million farmers of all plant products have kept records. All three growers visited by the audit team in the Antalya and Mersin regions had kept the PRBs.

Producers can only purchase PPPs when a prescription has been issued by a representative from the competent authorities or an authorised agricultural engineer.

Conclusions

The list of active substances contained in authorised PPPs has been mostly aligned with the active substances approved in the EU. The authorised use of certain pesticides on peppers, which had been the subject of EU RASFF notifications, have been revised, although there were minor discrepancies as to the end date of the authorised use for two pesticides. The alignment of authorised use with EU legislation is a major step to avoid infringements with EU MRLs.

Since the last audit in 2011, the CA have implemented a very comprehensive programme on pre-harvest sampling for pesticide residue analysis, but the programme does not specify procedures for inspections apart from the taking of samples. Although the recommendation from the previous audit report has been addressed, the lack of inspection procedures reduces the effectiveness of the controls.

Substantial support has been provided for Integrated Pest Management (IPM) and biological control in line with the recommendation of the previous audit report, but implementation in greenhouses producing peppers covers only a very small percentage of growers and is not sufficiently effective due to structural problems with small and outdated greenhouses.

The growers visited keep records of uses of PPPs as required by Regulation (EC) No 852/2004.

5.4 OFFICIAL CONTROLS OF PESTICIDES RESIDUES IN FOOD OF PLANT ORIGIN

Legal requirements

Article 46 (1)(b), (c), (d), (e) and (h) of Regulation (EC) No 882/2004 stipulate that EU controls shall have, inter alia, particular regard to: the existence and operation of documented control procedures and control systems based on priorities, the CA's capability to enforce applicable legislation, the resources including diagnostic facilities available to competent authorities, the training of staff in the performance of official controls and the assurances which the third country can give regarding compliance with, or equivalence to, EU requirements.

Article 11 of Regulation (EC) No 178/2002 stipulates that food and feed imported into the EU for placing on the market within the EU shall comply with the relevant requirements of food law or conditions recognised by the EU 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 MRLs, or 0.01 mg/kg for those products for which no specific MRL is set.

The CODEX has also established MRLs for pesticides, which are considered for the establishment of EU MRLs (CAC/MRL 1-2009).

Article 10 of Regulation (EC) No 852/2004 in conjunction with Article 6 of the same Regulation requires that every FBO 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.

Point 41 of Guidelines of CODEX CAC/GL 26-1997 on the Design, Operation, Assessment and

Accreditation of Food Import and Export Inspection and Certification Systems lays down that inspection services should utilise laboratories that are evaluated and/or accredited under officially recognized programmes to ensure that adequate quality controls are in place to provide for the reliability of test results. In accordance with Guidelines of CODEX CAC/GL 27-1997, point 3, the laboratories should comply with ISO/IEC Guide 17025.

Findings

5.4.1 Sampling Programmes for Pesticide Residues

Turkey has a multi annual control plan for pesticide residues 2013-2015 (see also section 5.3.2). For 2013, 3 000 post harvest samples are planned. For 2014 and 2015 an annual increase of 10% is planned, depending on results of the previous year, RASFF notifications and risk analyses. In 2012, 5 963 post-harvest samples were taken with 547 MRL exceedances.

5.4.2 Export Control Programmes

For peppers from open field cultivation, 10% of the consignments for export to EU have to be sampled; from glass-house 20% (from 15 February 2013 25%) and in the case of a RASFF notification, 100% of the consignments of the current harvest season. In 2012, 14% of the consignments were sampled, in total 3 182 samples were taken. In Antalya 996 samples were taken from July 2011 to March 2013, and in Mersin 18 samples were taken in 2012. The number of exceedances was less than 3 %.

5.4.3 Control at Pack-Houses, Processors, Exporters

Pack-houses have to be registered and are inspected at least twice a year. Two pack-houses, both subject to RASFF notifications, were visited by the FVO team, one in the province of Antalya, one in the province of Mersin. The first company exports 5 000 tonnes of peppers per year to EU vegetable and fruit markets. The company stated that 50% of peppers are purchased on the market via dealers and 50% directly from 213 producers. One of the RASFF notifications the company was subject to, was presented to the audit team. The consignment could be traced back to the producer. The detected PPP contained clofentezine but the records of the producer showed no use of PPPs containing this substance. It was also not present in his PPP storage. Follow-up samples were all compliant.

The second exporter packed 15 000 – 25 000 tonnes of fruit and vegetables a year, mainly citrus fruits. Export of peppers was less than 1% of his trade, around 100 ton a year to the EU. The company stated that the peppers were directly purchased from the producers. The RASFF notification in which the company was involved concerned peppers containing procymidone. The product could be traced back to the producer who admitted that he, by mistake, had used a PPP containing procymidone.

5.4.4 Laboratories for Pesticide Residue Analysis

In the report from the previous FVO audit DG(SANCO)/2011-6029, a recommendation was made *to continue broadening the scope of analytes sought in the official control samples, covering all metabolites included in the harmonised EU residue definitions to improve the effectiveness of control.*

A second recommendation concerning laboratory issues in the same report was *to continue efforts in order to ensure that laboratories for pesticide residue analysis are evaluated and/or accredited under officially recognised quality management and assurance programmes so as to guarantee reliability of analytical results.*

There are 20 official and 31 private laboratories authorised by MFAL for pesticide residue analysis in Turkey. Seven of the official laboratories are not accredited to ISO 17025. From the authorised private laboratories for pesticides residues, eight are not accredited under ISO 17025. Twelve official laboratories are permitted to analyse pepper samples for EU export. The audit team was informed that the authorisation procedure includes on-the-spot visits and annual audits.

The decision in which laboratory the sample is analysed is taken by the provincial control authority on a case-by-case basis.

The Department of Food Control and Laboratories, part of the GDFC, has the competence through the Laboratory Section to coordinate and update the network of laboratories responsible for official samples analysis. A National Reference Laboratory (NRL) in Ankara is designated for pesticides residues in Turkey.

Laboratories visited

The three laboratories visited, one official and two private, were accredited to ISO 17025 by the Turkish Accreditation Body and authorised to perform official analysis on fruit and vegetable samples by the GDFC. The official laboratory is situated in Antalya, the other two are located in Mersin. One has recently started in the field of pesticide residue analysis.

The number of analysis performed in 2012 by the official laboratory was approximately 10 000 samples for pesticide residues, 60% official samples and 40% private samples. The personnel in the pesticide residue section comprised nine qualified staff, one of them responsible for quality control activities.

The number of samples analysed in 2012 by the first private laboratory visited in Mersin was approximately 10 000 of which 1% were official controls on export to the EU. The personnel for the pesticide residue section is made up of five qualified staff, one of them focused on quality control activities.

The number of sample analyses performed in 2012 by the second private laboratory visited in Mersin was approximately 6 200 for pesticide residues in fruits and vegetables. Less than 10 were intended for official controls on export to the EU. The personnel for the pesticide residue section comprised five qualified staff, two of them focused partially on quality control activities.

Resources and training

All of the three laboratories visited have good facilities, with qualified and trained staff. The laboratory in Antalya is equipped with one GC-MS and has recently purchased one GC-MS/MS and two LC-MS/MS. The GC-MS/MS and one LC-MS/MS are in the process of being brought into routine work.

Both laboratories visited in Mersin are equipped with one LC-MS/MS and one GC-MS. Additionally these two laboratories have a second GC-MS dedicated to dithiocarbamate analysis.

Analytical spectrum and methods

The scope of accreditation of the laboratory in Antalya covers 61 active substances, although the total analytical scope covers 222 active substances. A further extension of the analytical scope under accreditation is planned to cover all “in house” validated compounds when the new GC-MS/MS and LC-MS/MS instruments are fully operational. The audit team noted that the accreditation scope does not cover all substances notified via RASFF, such as formethanate and methomyl. No Single residue method is validated or in operation.

The first private laboratory in Mersin is accredited for the analysis of 549 active substances in a multi residue method. A single residue method for dithiocarbamates by GC-MS is also accredited.

The second authorised private laboratory in Mersin is accredited for the analysis of 189 active substances, and a further 33 are included in the scope of the authorisation. A single residue method for dithiocarbamates by GC-MS is also accredited.

In the three laboratories the multi residue method applied is the QuEChERS method, followed by GC-MS and LC-MS/MS analysis.

The 11 active substances specified in Regulation (EC) No 669/2009 for analysis in Turkish peppers were communicated to the designated laboratories by the MFAL. However, in two of the laboratories visited, not all of these pesticides were under accreditation: in one laboratory diafenthurion, formetanate and tetradifon, and in another laboratory clofentezine were not included. Furthermore, in the case of formetanate the audit team observed important deficiencies for its effective analytical control in two of the laboratories visited. Methomyl, another pesticide specified in the same Regulation, was not adequately evaluated, as thiodicarb is not included in the scope.

In two of the laboratories, the reporting limits are in some cases higher than 10 µg/kg, and therefore higher than the EU MRL.

Quality assurance systems

The three laboratories follow the EU Quality Control Guidelines thoroughly providing adequate traceability of the sample, matrix matched calibration at a minimum of five points and quality control charts. Recovery checks were performed once a month for all analytes at a minimum of two levels. Daily calibration and recovery checks are not carried out by one of the laboratories visited in Mersin.

Uncertainty values are not applied in a consistent way in two of the laboratories. In the official laboratory a specific “bottom up” approach is applied but the values are not included in the analytical report and not all components required to estimate uncertainty were taken into account.

The laboratories participate regularly in Proficiency Tests (PTs), in all cases in the Food Analysis Performance Assessment Scheme (FAPAS) and in one case in the European Proficiency Test programme, with good results. However, in two laboratories some false negatives were present in each FAPAS PT checked, because not all the active substances present in the PTs were covered by the analytical scope of the laboratories.

Conclusions

Pack-houses exporting fresh fruits and vegetables are registered, as required by Regulation (EC) 852/2004. Traceability systems were implemented in the pack-houses visited. Substantial official programmes for pesticide residue analysis are in place.

The Turkish laboratory network for pesticide residues has enlarged during the recent years, including laboratories with high technical capabilities and personnel skills. Laboratories are accredited or evaluated as recommended in the previous audit report. Nonetheless, deficiencies in scope, availability of validated single residue methods, and quality control measures have been detected in two of the three laboratories visited. The recommendation regarding the scope of analytes from the previous audit is not sufficiently addressed. A further weakness is that the organisation of the laboratory network (official and designated private laboratories) does not ensure that export control samples are sent to the laboratories with the necessary scope and reporting limits, to meet EU MRLs set in Regulation (EC) No 396/2005, and the necessary quality control to guarantee the reliability of analytical results.

5.5 PRIVATE CONTROLS ON PEPPERS EXPORTED TO THE EU

Legal requirements

Article 17.1 of Regulation (EC) No 178/2002 stipulates that FBOs shall verify that requirements of food law relevant to their activities are met.

Article 4.3(e) of Regulation (EC) No 852/2004 requires that FBOs shall, as appropriate, adopt measures for sampling and analysis.

Findings

The three pepper growers visited by the FVO team were not certified to a private Good Agricultural Practice (GAP) system, and had not adopted private measures for sampling and analysis. The two exporters visited were not certified to a private quality scheme for their pepper production. They checked the presence of records on the use of pesticides from the growers. One of the exporters had not taken any private control samples for pesticide residues since 2011, the second exporter had taken only one.

Conclusions

Private controls are very limited and do not significantly contribute to compliance with EU pesticide residue standards. The lack of sampling and analysis is not in line with Article 4.3(e) of Regulation (EC) No 852/2004.

6 OVERALL CONCLUSION

A broad range of comprehensive steps have been taken to strengthen the official controls on pesticide residues, including the support of Integrated Pest Management, the ongoing alignment of

Plant Protection Products authorisations and MRLs with the EU legislation, substantial pre and post harvest sampling and export control programmes. Despite these measures there remain some findings of toxic pesticides by EU border controls, mainly in peppers. The MRL exceedances can be explained by the high number of small producers with outdated greenhouses, who do not sufficiently apply integrated control methods. In addition, the lack of private controls is a further constraint for ensuring compliance with the EU standards. Minor weaknesses were found in relation to the organisation of the laboratory network and the scope of analytes in the laboratories.

7 CLOSING MEETING

A closing meeting was held on 19 April 2013 with representatives of the CA. At this meeting, the audit team presented the main findings and preliminary conclusions of the audit. The GDFC representatives offered some initial comments and clarifications.

8 RECOMMENDATIONS

The competent authorities are invited to provide details of the actions taken and planned, including for deadlines for their completion ("action plan"), aimed at addressing the recommendations set out below, within 25 working days of receipt of this report.

The CA should:

N°.	Recommendation
1.	Ensure that the levels of pesticide residues in peppers intended for export to the EU comply with EU standards as laid down in Regulation (EC) No 396/2005. This could be achieved by implementing inspection procedures, apart from sampling, for official controls on the use of plant protection products. Integrated Pest Management measures, including biological control, should be supported to ensure their implementation by growers.
2.	Ensure that food business operators, carrying out any stage of production or distribution of peppers for export to the EU, adopt measures for sampling and analysis, as appropriate, as required by Article 4.3(e) of Regulation (EC) No 852/2004 in conjunction with Article 10 of the same Regulation.
3.	Ensure that samples of peppers for export to the EU are analysed in laboratories with the relevant scope and reporting limits to achieve effective controls of MRLs laid down in Regulation (EC) No 396/2005.
4.	Ensure that laboratories for pesticide residue analysis are evaluated and/or accredited under officially recognised quality management and assurance programmes so as to guarantee reliability of analytical results provided as set out in Point 41 of CODEX CAC/GL 26-1997 on the Design, Operation, Assessment and Accreditation of Food Import and Export Inspection and Certification Systems.

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

http://ec.europa.eu/food/fvo/rep_details_en.cfm?rep_inspection_ref=2013-6684

ANNEX 1 - LEGAL REFERENCES

Legal Reference	Official Journal	Title
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
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

ANNEX 2 – STANDARDS QUOTED IN THE REPORT

Reference number	Full title	Publication details
CODEX Guidelines CAC/GL 25-1997	Guidelines for the exchange of information between countries on rejections of imported food (CAC/GL 25-1997).	http://www.codexalimentarius.net/web/standard_list.jsp
CODEX Guidelines CAC/GL 26-1997	Guidelines on the design, operation, assessment and accreditation of food import and export inspection and certification systems (CAC/GL 26-1997).	http://www.codexalimentarius.net/web/standard_list.jsp
CODEX Guidelines CAC/GL 27-1997	Guidelines for the Assessment of the competence of testing laboratories involved in the import and export control of food (CAC/GL 27-1997).	http://www.codexalimentarius.net/web/standard_list.jsp
CODEX Guidelines CAC/GL 31-1999	Recommended methods of sampling for the determination of pesticide residues for compliance with MRLs (CAC/GL 33-1999).	http://www.codexalimentarius.net/web/standard_list.jsp
CAC/MRL 1-2009	Maximum Residue Limits (MRLs) for Pesticides	http://www.codexalimentarius.net/mrls/pestdes/jsp/pest_q-e.jsp