FINAL REPORT OF AN AUDIT
CARRIED OUT IN
TURKEY
FROM 19 NOVEMBER 2018 TO 29 NOVEMBER 2018
IN ORDER TO
ASSESS THE CONTROL SYSTEM IN PLACE TO CONTROL AFLATOXIN
CONTAMINATION IN DRIED FIGS INTENDED FOR EXPORT TO THE EUROPEAN
UNION

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

This report describes the outcome of an audit carried out by the Directorate-General for Health and Food Safety in Turkey from 19 to 29 November 2018.

The objectives of the audit were to assess if the systems in place to control aflatoxin contamination in dried figs intended for export to the European Union (EU) are adequate to verify if the specified limits for contaminants laid down in EU legislation are respected, in particular with, or at least equivalent to, Regulation (EC) No 1881/2006.

The audit team also assessed the actions taken by the competent authorities (CAs) in response to the recommendations made in the report of a previous audit on this subject carried out in 2012 (DG (SANCO) 2012-6292).

Overall, Turkey has the necessary legal and organisational framework for the implementation of the control of aflatoxin contamination in dried figs for export to the EU.

Public authorities as well as many actors in the production and marketing sector continue to promote the research and implementation of good agricultural practices for the prevention and reduction of aflatoxin contamination of dried figs at the farm level. There is currently no such approach to promoting good manufacturing practices in the processing and distribution sector.

The audit team also noted shortcomings in the implementation of control measures by the relevant local authorities, both in terms of sampling and issuing health certificates. The investigations performed by local competent authorities, of non-compliant consignments found in the EU during import controls, are also not always adequate. The effectiveness of the HACCP plans (and related own-checks) implemented by the processors involved are also not called into question in view of the recurrence and high number of notifications.

These shortcomings call into question the ability of Turkey's current control system to verify that exported dried fig consignments meet the limits set by Regulation (EC) No 1881/2006 and to reduce the number of registered notifications.

The CA addressed the recommendations of the previous audit.

The report contains recommendations to the Turkish CAs, aimed at rectifying the shortcomings identified and enhancing the implementation of control measures.
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<th>Explanation</th>
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<td>AEA</td>
<td>Aegean Exporters Association</td>
</tr>
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<td>CA</td>
<td>Competent Authority</td>
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<tr>
<td>CAC</td>
<td>Codex Alimentarius Commission</td>
</tr>
<tr>
<td>CCA</td>
<td>Central Competent Authority</td>
</tr>
<tr>
<td>CN</td>
<td>Combined Nomenclature</td>
</tr>
<tr>
<td>CODEX</td>
<td>Codex Alimentarius Commission of the Food and Agriculture Organization of the United Nations and World Health Organization</td>
</tr>
<tr>
<td>DAFDs</td>
<td>District Agricultural and Forestry Directorates</td>
</tr>
<tr>
<td>DG Health &amp; Food Safety</td>
<td>Directorate-General for Health and Food Safety of the European Commission</td>
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<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>FSIS</td>
<td>Food Safety Information System</td>
</tr>
<tr>
<td>FBO</td>
<td>Food Business Operator</td>
</tr>
<tr>
<td>GAP</td>
<td>Good Agricultural Practices</td>
</tr>
<tr>
<td>GDAR</td>
<td>General Directorate of Agricultural Reform</td>
</tr>
<tr>
<td>GDFC</td>
<td>General Directorate of Food and Control</td>
</tr>
<tr>
<td>GDPP</td>
<td>General Directorate of Plant Production</td>
</tr>
<tr>
<td>GMP</td>
<td>Good Manufacturing Practice</td>
</tr>
<tr>
<td>HACCP</td>
<td>Hazard Analysis Critical Control Points</td>
</tr>
<tr>
<td>HPLC-FLD</td>
<td>High Performance Liquid Chromatography with Fluorescence Detection</td>
</tr>
<tr>
<td>MoAF</td>
<td>Ministry of Agriculture and Forestry</td>
</tr>
<tr>
<td>IPM</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>NCP</td>
<td>National Contact Point</td>
</tr>
<tr>
<td>NRL</td>
<td>National Reference Laboratory</td>
</tr>
<tr>
<td>PAFDs</td>
<td>Provincial Agricultural and Forestry Directorates</td>
</tr>
<tr>
<td>PCL</td>
<td>Provincial Control Laboratories</td>
</tr>
<tr>
<td>PPPs</td>
<td>Plant Protection Products</td>
</tr>
<tr>
<td>RASFF</td>
<td>Rapid Alert System for Food and Feed</td>
</tr>
<tr>
<td>RCP</td>
<td>Recommended Code of Practice</td>
</tr>
<tr>
<td>TS</td>
<td>Technical Standard</td>
</tr>
<tr>
<td>UV</td>
<td>Ultra Violet light</td>
</tr>
</tbody>
</table>
1 INTRODUCTION

The audit took place in Turkey from 19 to 29 November 2018 as part of DG Health and Food Safety's annual audit programme in the context of a series of audits in non-EU countries to evaluate the control systems on contaminants and the operational standards in this sector. The audit team comprised two auditors from the DG Health and Food Safety and one national expert from a Member State.

The team was accompanied during the audit by representatives of the Central Competent Authority (CCA), the Ministry of Agriculture and Forestry (MoAF).

The opening meeting was held on 19 November 2018 with the CCA in Ankara. At this meeting the audit team confirmed the objectives of, and itinerary for the audit, and additional information required for the satisfactory completion of the audit was requested.

2 OBJECTIVES AND SCOPE

The objectives of the audit were to:

- Verify whether the systems in place to control aflatoxin contamination in dried figs intended for export to the EU comply with, or are at least equivalent to EU legislation to ensure that the products concerned are within the specified contaminant limits laid down in Commission Regulation (EC) No 1881/2006 of 19 December 2006 setting maximum levels for certain contaminants in foodstuffs.

- Assess the actions taken by the Competent Authority (CA) in response to the recommendations made during the previous audit to Turkey on the same subject (Ref: DG (SANCO) 2012-6292).

In terms of scope, the audit reviewed the controls in place on the primary production, processing and export of dried figs products, including the national legislation in place, the organisation of the CA involved and its controls and enforcement capability.

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

Table 1: Audit visits and meetings

<table>
<thead>
<tr>
<th>Sites visited</th>
<th>Number</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competent Authorities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central</td>
<td>1</td>
<td>MoAF</td>
</tr>
<tr>
<td>Regional/Local</td>
<td>2</td>
<td>Provincial Agricultural and Forestry Directorates (PAFDs) in Izmir and Aydin</td>
</tr>
<tr>
<td>Laboratories</td>
<td>3</td>
<td>The National Reference Laboratory (NRL), one public Provincial Control Laboratory (PCL) and one approved private laboratory.</td>
</tr>
<tr>
<td>Sites visited</td>
<td>Number</td>
<td>Comments</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>--------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td><strong>Producers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Farmers</td>
<td>2</td>
<td>Farmers growing conventional and organic figs</td>
</tr>
<tr>
<td><strong>Processors/Exporters</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Processors, exporters</td>
<td>4</td>
<td>Operators located in Aydin and Izmir Province</td>
</tr>
<tr>
<td><strong>Point of export</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customs</td>
<td>1</td>
<td>Customs services in Izmir Harbour</td>
</tr>
<tr>
<td><strong>Other Sites (e.g. Research Centre)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Association of exporters</td>
<td>1</td>
<td>Aegean Exporters Association (AEA) in Izmir</td>
</tr>
<tr>
<td>Research Centre</td>
<td>1</td>
<td>Fig research institute directorate in Aydin</td>
</tr>
</tbody>
</table>

3 **LEGAL BASIS AND STANDARD**

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 non-EU countries may verify compliance or equivalence of non-EU countries' legislation and systems with EU feed and food law and EU animal health legislation. These controls shall have particular regard to the assurances which third countries can give regarding compliance with, or equivalence to, EU requirements.

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

3.2 Standards

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

A full list of the applicable CODEX documents referred to in this report is provided in Annex 2.

4 **BACKGROUND**

DG Health and Food Safety carried out audits to the main exporting non-EU countries to evaluate official control systems in place for preventing aflatoxin contamination in foodstuffs. The reports on these audits are available on the EU Commission's website at: http://ec.europa.eu/food/audits-analysis/audit_reports/

A previous mission on this subject took place in Turkey in 2012 (DG (SANCO) 2012-6292). The report contained three recommendations addressed to the CAs. Action plans were
received, which were considered satisfactory to address the recommendations made in the report.

According to Article 15(1) of Regulation (EC) No 882/2004, foodstuffs imported into the EU are checked by the CAs of the Member State. When risks to public health are detected during these checks, information is disseminated as alerts or notifications through the Rapid Alert System for Food and Feed (RASFF) to all Member State and to the exporting country.

Regulation (EC) No 1881/2006 sets the maximum levels for aflatoxin B1 at 6,0 μg/kg and of the sum of B1, B2, G1 and G2 at 10,0 μg/kg.

In previous years, dried figs imported from Turkey were subject to between 42 to 69 RASFF notifications for aflatoxin contaminations annually and three to five for missing or incorrect health certificates.

**Table 1:** Imports and RASFF notifications

<table>
<thead>
<tr>
<th>Products Combined Nomenclature ¹ (CN) Codes</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>First semester 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh Figs 0804 20 10 (tons)</td>
<td>12.590</td>
<td>11.275</td>
<td>12.938</td>
<td>19</td>
</tr>
<tr>
<td>Dried Figs 0804 20 90 (tons)</td>
<td>29.187</td>
<td>30.891</td>
<td>30.941</td>
<td>11.281</td>
</tr>
<tr>
<td>RASFF Notifications for Aflatoxins contamination</td>
<td>47</td>
<td>42</td>
<td>69</td>
<td>23</td>
</tr>
<tr>
<td>RASFF Notifications for absence or incorrect health certificate</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

*Source: Turkish CAs and RASFF database*

Commission Implementing Regulation (EU) No 884/2014 of 13 August 2014 imposes special conditions governing the import of certain feed and food from certain third countries due to contamination risk by aflatoxins.

Currently, Regulation (EU) No 884/2014 requests that each consignment of dried figs originating in or consigned from Turkey is accompanied by a health certificate issued by the CA of the exporting country and by the results of sampling and analysis performed by the CA to ascertain compliance with EU legislation on the maximum levels of aflatoxins. The sampling and the analysis have to be performed in accordance with Regulation (EC) No 2658/87 established a goods nomenclature to meet, at one and the same time, the requirements of the Common Customs Tariff, the external trade statistics of the Union, and other Union policies concerning the importation or exportation of goods.

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¹ Regulation (EEC) NO 2658/87 established a goods nomenclature to meet, at one and the same time, the requirements of the Common Customs Tariff, the external trade statistics of the Union, and other Union policies concerning the importation or exportation of goods.
401/2006 laying down the methods for the official control of the levels of mycotoxins in food stuffs.

Regulation (EU) No 884/2014 also sets a minimum level of controls for certain categories of products:

**Table 2:** Product categories subject to reinforced controls.

<table>
<thead>
<tr>
<th>Food</th>
<th>CN² Codes</th>
<th>Minimum frequency of physical and identity checks at import</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dried figs</td>
<td>0804 20 90</td>
<td></td>
</tr>
<tr>
<td>Mixtures of nuts or dried fruits containing figs</td>
<td>ex 0813 50 999000</td>
<td>10 %</td>
</tr>
<tr>
<td>Fig paste</td>
<td>ex 2007 10 or 2007 99</td>
<td></td>
</tr>
<tr>
<td>Figs, prepared or preserved, including mixtures</td>
<td>ex 2008 99 or 2008 97</td>
<td></td>
</tr>
</tbody>
</table>

5 **FINDINGS AND CONCLUSIONS**

5.1 **Relevant National Legislation**

**Legal requirements**


**Findings**

1. The audit team was presented with the relevant national legislation establishing the legal basis for the CAs to perform the official controls on the operators involved in the production of dried figs in Turkey and for the sampling, analyses and certification of dried figs intended to be exported to EU:

- Law NO 5996 on Veterinary Services, Plant Health, Food and Feed, published in Official Journal NO 27610 on 13 June 2010 (law on veterinary services, plant health and feed covering the production, processing, and distribution of foodstuffs);

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• Regulation No 28145 on Official Controls of Food and Feed, published in Official Journal on 17 December 2011. This sets out the principles and procedures for:
  – Official controls on food of plant origin;
  – Registration of food establishments (except primary producers);
  – Food Hygiene requirements for producers and processing establishments;
  – Control of implementation of good practices and Hazard Analysis and Critical Control Points (HACCP) principles by the food business operators (FBO);

• Turkish Food Codex Regulation on Contaminants No 28157, published in the Official Journal on 29 December 2011, lays down national limits for certain contaminants in foodstuffs. The limits for dried figs intended for the Turkish market is the same as in EU for the total aflatoxins (10.0 μg/kg for the sum of aflatoxins B1, B2, G1 and G2) and higher for aflatoxin B1 (8.0 μg/kg instead of 6.0 μg/kg); It also sets out requirements for FCL to carry out official analyses and on the approval and supervision of their activities;

• Regulation No 28123, published in the Official Journal on 25 December 2011, regulates the issuance of health certificates for the export of food and feed of plant origin and requirements applicable to products returned after rejection during export;

• Turkish Food Codex Communique 2018/10, published in the Official Journal on 15 March 2018 with No 30361, sets the criteria for sampling, sample preparation and methods of analysis for the official control of mycotoxin levels in foodstuffs;

• Regulation No 27778, published on 7 December 2010 establishes the provisions on general Good Agricultural Practices (GAP).

2. In addition to the legal framework, various guides to good practice, manuals and booklets of information have been published by the CAs, research centres or universities, as well as by the AEA. These include recommendations on techniques to prevent aflatoxin contamination. For example:

• Guideline for GAP for food of non-animal origin developed by the General Directorate of Plant Production;

• GAP for fig cultivation - brochure published by Aydin PAFD;

• GAP for dried figs - brochure published in the context of the FAO-TCP/TUR/3201 project;

• Guide on cultivation of dried figs and aflatoxin management published by the Ministry of Food, Agriculture and Livestock (now MoAF), the Aegean University and the AEA, 2012;
3. For processors there are no national guides to good practice for hygiene and for the application of HACCP principles describing specific good manufacturing practices (GMP) or recommendations for the prevention and reduction of aflatoxin contamination in dried figs\(^3\). Law No. 5996 and the legislative provisions prepared in accordance with this law shall be applied to controls and audits within the scope of Turkish Food Codex Regulation. In absence of specific legal requirements applicable to fig products in the horizontal or vertical Turkish Food Codex Regulation, national or international standards are taken into consideration. In this context, TS 541 for marketing and commercial control of dried figs established by the Turkish Standard Institute applies (describing criteria of quality control or packaging as well as procedures of sampling and control).

4. For the scope of the audit, TS 541 only requires that dried figs should not present signs of mould and fermentation and that the moisture content should not be more than 26% in the final product set in circulation (it can be up to 30% if treated with preservatives in accordance with the regulations of the importing country). However, as no formal or legal sanction is imposed, this feature is not checked in the official checks performed by the inspectors.

### Conclusions on Legal requirements

5. The legal framework in Turkey establishes the basis for the performance of adequate official controls all along the chain of production, processing and export of dried figs to EU.

6. The existence of many GAP standards facilitates the awareness and implementation of the prevention of aflatoxin contamination by primary sector actors. However, there is no such GMP available for processors.

#### 5.2 Competent Authorities

**Legal requirements**

Articles 46(1)(b) and (c) of Regulation (EC) No 882/2004.

**Findings**

7. The MoAF is the CA for the implementation of official controls in the dried figs production chain. MoAF is responsible for setting the requirements and for implementing the controls related to: food safety, good hygiene and production practices and for the traceability and labelling of products. This all along the production chain, including storage, transportation and sales. The MoAF is also responsible for the management of RASFF notifications received from the EU.

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\(^3\) In their response to the draft report the Competent Authority noted that "For the processors, in order to implement hygiene and HACCP principles on the prevention or reduction of aflatoxin contamination in dried figs, the studies on the preparation of hygienic principles and good practice guide of the post-harvest stages in dried figs have started and it is aimed to remove the fig before the harvest time."
8. Within MoAF, responsibilities are spread between the General Directorate of Agricultural Reform (GDAR), the General Directorate of Plant Production (GDPP) and the General Directorate of Food and Control (GDFC).

9. The GDAR is responsible for the maintenance at central level of the electronic 'Farmers Registration System'.

10. The GDPP is responsible for the training and controls of farmers, including on the use of plant protection products (PPPs), implementation of the integrated pest management principles (IPM) or for the supervision of control bodies certifying farmers applying the voluntary schemes on organic farming or on GAP.

11. The GDFC is the CCA responsible for the coordination of the official controls on foodstuffs, registration of FBOs (except farms at primary production) and drafting and disseminating instructions and guidelines for inspectors. GDFC provides training to the staff at provincial and district level and is also in charge of their supervision. GDFC is also responsible for the authorisation and supervision of official laboratories as required by the Regulation on Food Control Laboratories No 28157 of 29 December 2011.

12. There are 81 Provincial agricultural and forestry directorates (PAFDs) which are responsible for, among other things, the enforcement of food legislation. Each PAFD heads a network of several District agricultural and forestry directorates (DAFDs), 834 throughout Turkey.

13. 6,690 persons are employed for tasks related to food safety issues. This includes 3,900 persons working on phytosanitary issues, and 1,300 on supporting the implementation of GAP. All are graduates in agriculture, food, chemical, aquaculture or fishery technology engineers or veterinarians.

14. Each PAFD includes specific departments implementing the controls under the supervision of general directorates covered by the scope of the audit. Some tasks are also delegated by the PAFDs to the DAFDs.

15. The plant production and plant health departments of the PAFDs are responsible for the registration, training and control of farmers (including on topics related to GAP). The department is also responsible for the verification of the sanitary status of plants and issuance of the phytosanitary certificates.

16. The Food and Feed departments are responsible for the registration and approval of operators other than primary producers and for the inspection of establishments (including the control of aflatoxin contamination in dried figs). This also includes the performance of official sampling and issuance of health certificates for dried figs intended to be exported to the EU. Food and Feed departments also perform the follow-up investigations for notifications of the non-compliances' received by the CCA (i.e.: EU RASFF notifications).
17. The samples taken by the PAFDs are sent to one of the 33 public or private PCL, which return the results to the PAFDs. All approved laboratories have been accredited according to the TS EN ISO/IEC 17025 for aflatoxin analysis in dried figs. Approved laboratories are supervised and supported by the NRL of MoAF which is also accredited to EN ISO/IEC\(^4\) 17025 for aflatoxin analysis in dried figs and EN ISO/IEC 17043 as provider of proficiency tests to the PCL for aflatoxin in food.

18. Communication between the different CAs is performed through regular meetings, telecommunication and exchange of documents using a dedicated informatics documents management system (IDMS). A dedicated informatics program, the Food Safety Information System (FSIS) also supports the performance of official controls and communication between the different actors along the production chain allowing information on FBO, inspections and all other pertinent information to be recorded in a central database. This facilitates the communication between the CAs but also exchange of information with other users such as FBOs and laboratories.

19. 32 PAFDs have been designated to perform the control and certification of export to the EU of dried fruits (Adana, Ankara, Antalya, Aydın, Bolu, Bursa, Çorum, Denizli, Düzce, Eskişehir, Gaziantep, Giresun, Isparta, İstanbul, İzmir, Kahramanmaraş, Kayseri, Kırşehir, Kocaeli, Konya, Manisa, Mersin, Ordu, Osmaniye, Rize, Sakarya, Samsun, Şanlıurfa, Siirt, Tekirdağ, Trabzon, Zonguldak).

20. In these 32 PAFDs, 469 inspectors have been trained and authorized to perform the sampling and issue the health certificates in accordance with Regulation (EU) 884/2014.

21. The Internal Audit Unit within MoAF carries out audits to assess the performance of official food controls carried out by PAFDs. In the last two years, no internal audit has been carried out due to a lack of sufficient resources. The absence of internal audit did not allow a full supervision of the implementation of the regulation and modalities of control or realization of the administrative tasks by the PAFDs (in particular in term of issuance of health certificates or RASFF notifications' investigation). However, one person has recently been appointed to implement an audit plan that should be implemented once the internal audit teams have been appointed and their assignments confirmed.

22. The customs authorities, under the Ministry of Trade, are responsible for the customs clearance of consignments of dried figs exported to/returned from the EU. Customs also use the FSIS and collaborate with the MoAF to identify the commodities subject to specific requirements during the clearance process.

23. The Ministry of Trade also coordinates the activities of a traders-exporters assembly bringing together different professional organisations such as the AEA. The AEA gathers around 7500 exporters in different sectors (including dried fruits). The 400 members of the AEA exporting dried figs represent around 65 % of the total export.

24. The AEA collaborates with the research CAs in the research programs and for the elaboration of GAP guidelines, training and information programs. Processors and exporters are also supported by the AEA for the implementation of good practices such as the screening methods for the detection of contaminated figs and by the collection and destruction program for contaminated figs.

### Conclusions on Competent Authorities

25. The CAs are clearly designated and have the necessary legal basis to carry out their tasks effectively. The communication within and between the CAs and the other organisations involved is adequate and effective. There is also an adequate network of official and qualified laboratories.

### 5.3 Controls on Production and Processing

#### Legal Requirements

- Article 46(1) (e) and (b) of Regulation (EC) No 882/2004.

#### Findings

26. Farmers are subject to registration and official controls by the DAFDs. Official controls include the verification of: hygiene requirements (such as in Annex I of Regulation (EC) No 852/2004), the use of PPP and, the application of IPM principles.

27. Additional requirements apply to farmers requesting certification of conformity to the GAP and organic production standards. Only a few dried figs' producers are GAP certified, but organic certification covers an increasing percentage of dried figs producers. Organic farmers producing dried figs were the object of programmes to promote the use of techniques to prevent aflatoxin contamination.

28. These techniques include among others the control of insects in orchards by placing traps and the use of nets containing healthy male fruit during the pollination (later removed). The construction of drying tunnels with mosquito nets and floor coverings and the use of plastic drying crates were also supported by both the local authorities and the AEA. The use of nets under the trees is also recommended.

29. The AEA also organises a follow-up of the different operators in different regions of production and gives advice on the techniques to be implemented. An export season starting date is also set by the AEA based on observations made in each production area.
30. The audit team visited the orchards and drying places of two producers, one conventional and the other certified organic farming.

31. While the audit team was able to observe that the organic farmer had been following the techniques for the reduction of aflatoxin contamination recommended by the research centres for several years, this appeared to be only partially the case in the conventional orchard. The conventional farmer and the inspector met confirmed that the implementation of these GAP remains at the discretion of the operators and are not included in the scope of official controls. Their implementation may also be hampered by the economic difficulties faced by small farms.

32. Processors and exporters are subject to registration and official controls by the GDFC. The audit team was presented with the organisation of the official controls and the system of annual risk assessment of operators and planning of inspections and sampling plan. The audit team visited three establishments producing and exporting dried figs. All were subject to EU RASFF notifications in the previous years.

33. During the visits and the consultation of previous inspection reports, the audit team was able to confirm that official controls cover Turkish legal requirements related to food safety (including the implementation of the HACCP principles), traceability and labelling of dried figs (this confirms the implementation of the corrective action related to recommendation No1 of the DG(SANCO) 2012-6292 audit).

34. The establishments visited were the subject of regular official controls and the audit team was able to observe that operators also implemented own-control systems including an aflatoxin contamination control plan for each batch of dried figs handled.

35. The quality management system and related HACCP plan of the processors-exporters visited were all subject to third party certification (i.e. ISO 22000).

36. All the establishments visited were implementing at least one control of fungus contamination on the sorting table in black rooms equipped with Ultra Violet (UV) lamps. This technique allows figs contaminated by fungi producing aflatoxins to be detected thanks to the bright greenish yellow fluorescence emitted under UV light.

37. The number of controls and equipment put in place varied from one establishment to another, with some repeating the sorting process several times throughout the production process (i.e. on receipt, after washing and during preparation finished products ready to be packaged). Some of the establishments visited also used electronic sorting equipment, controls of internal contamination of dried figs using probes or opening the fruits, or performing laboratory analysis of finished products.

38. The information on the initial and ongoing training of inspectors and the observation of inspections of establishments visited and sampling carried out confirmed the competence of the inspectors in charge of the establishments visited.

39. The control of compliance with the legal requirement for operators to have a HACCP plan is mainly based on the verification that there is a HACCP plan and that it is implemented. During the inspections observed, the inspectors did not assess in detail the
content of the HACCP plan in order to judge the validity of the risks analysis carried out and the type and the validation of the measures of control of aflatoxin contamination implemented by the operators.

40. The effectiveness of the HACCP plan and the control measures implemented are also not subject to question following the registration of a large number of RASFF notifications. For example, one of the operators visited, although the object of more than a dozen RASFF notifications in 2017 and already several in 2018, has only been subject to two annual inspections and none of these inspections or investigations carried out as part of the RASFF notifications has called into question the efficiency of the HACCP plan for controlling aflatoxin contamination and to ensure the release of batches in compliance with the established limits.

41. Interviewed inspectors confirmed that the procedures for challenging the operators' HACCP plans were not clearly established in the current procedures and instructions. The absence of GMPs and guidelines for the implementation of HACCP principles adapted to the dried figs sector (detailing the specific risks expected and related control methods as well as the recommendations of CAC / RCP 65-2008 for processors and wholesalers), does not facilitate the task for operators and official controllers either.

42. A sampling plan is implemented annually by the Turkish CAs on aflatoxin contamination in dried figs. When contaminated lots were found, they were monitored by the CAs and subject to sorting or destruction.

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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<tbody>
<tr>
<td>Samples of dried figs</td>
<td>273</td>
<td>245</td>
<td>213</td>
</tr>
<tr>
<td>Detection of aflatoxin</td>
<td>7</td>
<td>9</td>
<td>5</td>
</tr>
</tbody>
</table>
Conclusions on Official Controls on Production and Processing

43. All stakeholders involved in the production and processing of dried figs have continued the efforts to increase the awareness of growers on GAP intended to prevent aflatoxin contamination at farm level and several promotional programs and subsidies have increased the number of producers applying GAP including the recommendations of the Codex Alimentarius CAC/RCP 65-2008.

44. For dry fig processors, although the legal requirements for hygiene, traceability, infrastructure or labelling are subject to regular official controls, the monitoring of the implementation of the HACCP principles and especially of the effectiveness of the HACCP plan developed by the operators remains superficial.

45. The lack of clear instructions and guidelines for the conduct of this assessment by the official controllers, as well as the lack of questioning of the effectiveness of the operators' control system of operators facing numerous RASFF notifications due to aflatoxin contamination, does not meet the requirements of Article 5 of Regulation (EC) No 852/2004 and does not contribute to the improvement of compliance rates of consignments set into circulation.

5.4 Procedure for Exporting to the EU

Legal requirements


Findings

46. The regulation on the issuance of health certificates includes all the relevant steps and describes the mechanisms and responsibilities.

47. The procedure starts when the exporter or his representative inputs into FSIS all the requested information related to the exporter, product and destination. The request must be made to one of the 32 PAFDs authorized to issue the health certificates.

48. The information encoded in the FSIS and included in the accompanying documents submitted in the export application is evaluated by the PAFD and if it is complete and compliant, the pre-export inspection procedure begins.

49. The PAFDs, or in some cases DAFDs depending where the processing company is located, organises an inspection of the establishment where the batch intended for export is stored.

50. The inspector verifies that the products are well packaged and have the appropriate labels and information in accordance with that submitted in the FSIS application (batch number, quantities, traceability). Once all the data submitted during the application has
been verified, a sample is taken and sent to the sample acceptance service of the province or district concerned which will send it to an approved laboratory to perform the aflatoxin analysis requested by the destination countries.

51. Aflatoxin results are then forwarded by the laboratory to the person in charge of issuing health certificates within PAFDS through the FSIS. If the results of the analysis are in line with the limits applicable in the destination country, the health certificate is issued by the Control Officer in line with the annex of Regulation (EU) No 884/2014.

52. The report of “sampling and analysis results” is also edited from the FSIS and added to the health certificate issued. The documents shall be signed by official inspectors assigned to export operations. These inspectors were subject to specific trainings and approved for the issuance and signature of the health certificate requested by Regulation (EU) No 884/2014.

53. In September 2018, customs reinforced the documentary checks during export clearance of consignments of specific products containing dried figs. In collaboration with the MoAF, customs included an additional requirement for exporters to provide the health certificate with all the other mandatory accompanying documents for a list of CN codes. The list correctly applies to all CN codes included in Regulation (EU) No 884/2014. The documents presented at customs do not always include the “sampling and analysis results” documents and no verification of its availability by customs is requested.

54. Since 2016, eleven RASFF notifications and border rejections were issued due to the absence of health certificates and improper certificates being detected during import controls at EU border.

55. Although these notifications triggered investigations within the operators concerned, no investigation was made within the services in charge of issuing the health certificates. As a result, no investigation into the causes of the errors in the certificate issuing process has been carried out within the PAFDs involved.

56. There is also a lack of an overall analysis of the central authority for this type of non-compliance, whether in the general framework of monitoring RASFF notifications or supervising the work of PAFDs (i.e. during internal audit). During the audit, no corrective or preventive action had been initiated, at central or local level, to prevent the repetition of these non-compliances.

57. When consulting the RASFF notification documents in the establishments visited, the audit team also noted an inconsistency between the sampling and issuing dates recorded in one of the health certificates and the date of production of the batch recorded in the production records and the traceability system of the establishment (being several days later than the official date of sampling referred to in the health certificate). The inspectors interviewed confirmed that verification of all production records of the batch to be sampled is not mandatory in the procedure of granting authorisation for export and are then not systematically assessed during the specific inspection for sampling.
Conclusion on Procedure for Exporting to the EU

58. Turkey has a procedure to ensure that dry fig products listed in Regulation (EC) No 884/2014 for the EU are inspected, sampled and provided with a health certificate required when they comply with the aflatoxin limits laid down in Regulation (EC) No 1881/2006.

59. This procedure is not always correctly implemented and is not subject to proper supervision to ensure that the health certificate information is correct and supported by adequate checks to provide the expected guarantees for the conformity of the exported products.

5.5 Method of Sampling Consignments

Legal requirements


Findings

60. The instruction for sampling, sample preparation and method of analysis during official control of mycotoxin levels in foodstuffs was amended by the Turkish Food Codex Communique No 2018/10 published in the official journal No 30361 on 15 March 2018. The requirements are equivalent to Regulation (EC) No 401/2006.

61. All consignments of dried figs intended for export to EU are sampled by the PAFDs or in some cases by the DAFDs. Inspectors are provided with sampling equipment including gloves, seals and plastic bags (including a large black plastic bag to shield the samples from UV during transport).

62. They are provided with a sampling form edited by the software FSIS. The sampling form is pre-filled with the information submitted by the applicant (batch identification, product type, shelf life, quantity and country of final destination) and instructions for the performance of sampling (number of incremental samples, the weight of the aggregate sample and number and weight of the laboratory samples). The instructions are established based on the description of the batch to be inspected and certified and the requirements of the Turkish Codex 2018/10.

63. The audit team observed the performance of two official sampling of consignments intended for export to the EU (one of whole dried figs and one of diced dried figs).

64. The pallets of products, packaged in cardboard boxes with plastic film, were stored separately from the rest of the production at the premises of the manufacturer-exporters. After verification of the correct identity of the consignment presented for sampling and conformity of the information submitted in FSIS (i.e.: total weight, number and weight of the boxes, traceability codes and destination labelled), inspectors selected a number of individual boxes equivalent to the number of incremental samples to be taken within the
pallets ensuring a homogeneous distribution. Operator's employees helped to take the designated boxes and to open them before the inspector performs or supervises the taking of incremental samples (by the exporter's employees).

65. The sampling of the 300 grams of incremental samples recommended by the procedures were taken manually in the form of two to three hand full per box all gathered in one or two crates then tip out on a pre-cleaned stainless steel worktop for mixing.

66. In the absence of specific sampling equipment, it was not possible to verify whether the 300 grams per additional sample was met each time, only the total weight of the aggregate sample being ultimately verified by the inspector to see if the minimum weight is achieved. In order to be sure of this, the hand full taken were generous each time and in both cases the weight of the aggregate sample was much higher than the weight indicated on the prefilled sampling form. Although the actual weights are measured, the one in the sampling form was not amended to reflect the real value.

67. Aggregate samples were then mixed on stainless steel tables, previously cleaned and disinfected, by inspectors or facility staff and laboratory samples extracted. There is no specific protocol to perform the mixing aimed at guaranteeing the homogeneity of the aggregate sample (no definition of the technique or duration of the mixing operation).

68. The required laboratory sample(s) were then taken at the exact weight(s) indicated on the sampling form, leaving aside the aggregate sample balance. This does not comply with requirements of Regulation (EU) No 401/2006, which requires that the entire aggregate sample is divided into equal laboratory samples (use of the entire aggregate sample produced and not just a portion equivalent to the minimum quantities required for laboratory samples).

69. Samples were then correctly packed and labelled in plastic bags sealed and set in a bigger, opaque, plastic bag with the sampling form signed by all parties. Samples are delivered to the PAFDs sample acceptance units the day of sampling. Sampling data and the integrity of samples are verified by the acceptance unit and recorded in the FSIS before the sample is sent to an approved laboratory to perform the analyses.

<table>
<thead>
<tr>
<th>Conclusions on Method of Sampling of Consignments</th>
</tr>
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<tbody>
<tr>
<td>70. Although the sampling methods, prescribed by the Turkish codex 2018/10, implemented since March 2018, are now equivalent to the requirements of Regulation (EC) No 401/2006, the issues noted in sampling and in laboratory samples preparation may impair the representativeness of analytical results.</td>
</tr>
</tbody>
</table>

### 5.6 Laboratory Services

#### Legal requirements

Articles 46(1)(d) and (c) of Regulation (EC) No 882/2004.

Points 41 and 42 of CAC/GL 26-1997.


Findings

71. The audit team visited 3 laboratories (Ankara, Izmir and Aydin). The approved laboratories (public or private) are subject to supervision and regular visits by the MoAF as established by Turkish Regulation No 28157 of 29 December 2011.

72. The first laboratory visited in Ankara was the NRL. The NRL participates in the supervision and training of the approved laboratories involved in the official control of dried figs. The NRL is accredited TS EN ISO/IEC 17043:2013 by the Turkish Accreditation Agency Türkak as a provider of proficiency tests to the PCL for mycotoxins in food (aflatoxin B1, B2, G1, G2, total aflatoxins and Ochratoxin A). The NRL prepares and distributes proficiency tests for aflatoxin in several commodities including dried figs for the network of PCL. The laboratory is also accredited TS EN ISO/IEC 17025:2012 for the performance of aflatoxin analyses in food, but does not perform routine analysis of official samples of dried figs intended for export to the EU.

73. The laboratory has modern and state-of-the-art premises and equipment to perform all its tasks. All the necessary quality control measures are in place and correctly implemented. The laboratory also has sufficient and competent staff subject to regular training.

74. The two PCL visited by the audit team, in Izmir and Aydin, performed official analysis of aflatoxins in dried figs intended for export to the EU. Both laboratories were duly accredited TS EN ISO/IEC 17025:2012 for the performance of aflatoxin analyses on dried figs and were subject to annual audits by Türkak.

75. Audit reports of the visits performed by the MoAF in its supervision program were available and corrective action plans to address the weaknesses detected were correctly documented and implemented. Reports were available of the participation of both laboratories in the proficiency tests coordinated by the NRL, mandatory every two years. Both laboratories having achieved good results (Z-scores) in proficiency tests for aflatoxins in dried figs over the last two years period.

76. Both have High Performance Liquid Chromatography with Fluorescence Detection (HPLC-FLD) methods with post-column derivatisation in place for the analysis of aflatoxin B1, B2, G1 and G2. The sum of the aflatoxins is calculated by summing up the single results as lower-bound calculation. The methods are based on dry-grinding for homogenization, methanol/water extraction, immunoaffinity-column clean-up and HPLC-FLD analysis.

77. For calibration purposes a certified standard solution is used. The required documents and certificates were present and expiry dates were respected. The solutions were properly stored in refrigerated condition. The calibration is regularly checked by a
system suitability standard (not independently prepared from the calibration) and they regularly apply self-spiked or naturally contaminated dried fig samples.

78. The validation method was satisfactory and the method for performance criteria matches the criteria in Regulation (EU) No 401/2006. Recovery rates were calculated during the validation study and regularly checked and monitored in a control chart. However, certified reference materials are not regularly applied.

79. Both laboratories had well trained and educated staff provided with adequate standard operating procedures. Premises are modern and equipped with state of the art instruments. Adequate air conditioning systems, heating and sunlight protection are in place. Balances and pipettes are calibrated annually by an accredited third party (up-to-date certificates were available in the laboratories).

80. When official samples are received from the acceptance unit of the PAFDs, a control of the integrity of samples and information provided is made before the acceptance and registration in the laboratory information management system with a unique laboratory number. Laboratories also use the FSIS to communicate with the PAFDs. In case of problems found at reception of the samples (i.e. missing information), samples are rejected by the laboratory and sent back to the acceptance unit of the PAFD with a short report form.

81. The audit team was able to observe that the samples were correctly handled and appropriately recorded, with all necessary information, throughout its journey within the laboratory information management system (with the exception of the expiry date of the batch on the sampling form was not always reported in the system of the laboratory and the FSIS). At the end of the process, the visited laboratories issue analysis reports in accordance with the EU requirements (this confirms the implementation of the corrective action related to recommendation No3 of the DG(SANCO) 2012-6292 audit).

Conclusions on Laboratory Services

82. The laboratories performing analyses for the official control on aflatoxin contamination in the dried figs intended for export to EU are subject to adequate accreditation and approval to demonstrate their competences and respect of the relevant requirements.

83. The audit team confirmed that the laboratories visited complied with requirements of Article 2 of Regulation (EC) No 401/2006 on sample preparation and methods of analysis used for the official control of mycotoxin levels in foodstuffs (Annex II to the Regulation).

5.7 Response to RASFF Notifications

Legal requirements

Chapter IV, section 1 Regulation (EC) No 178/2002

CAC/GL 25-1997
Findings

84. Instruction 5839-30053 of 13 August 2008 describes the management of the system of rapid alerts related to food, feed and food contact materials. It defines the responsibilities and modalities of communication and collaboration between the national contact point (NCP) in the MoAF and the contact point in the control units in the PAFDs.

85. When a RASFF notification is received by the NCP, the information is forwarded electronically to the PAFDs where the producer and/or exporter concerned are located with additional information on the actions and information expected to return to the NCP. Other CAs such as the Ministry of Foreign Trade (customs) or Ministry of Health can also be informed.

86. Each notification is individually registered and printed by the NCP and a weekly summary of the notification is emailed to the PAFDs. At reception of the notification from the NCP the control unit initiates an investigation.

87. The operators involved are informed and requested to provide production and traceability documentation related to the batch concerned. A visit to the establishment can be organised and if the operator still has a part of the lot concerned, sampling is carried out. If not, another batch can also be sampled. If during the investigation other producers and/or other PAFDs are involved they are also contacted.

88. The investigation report and documents collected by the inspector are gathered in the PAFD and emailed to the NCP. A draft report of the investigation should be sent to the NCP within 5 days and the final report within 15 days (or less in case of emergency).

89. A follow-up report is sent back to the NCP who evaluates the results of the investigation and conclusions before sending the official reply to the EU RASFF contact point.

90. The audit team reviewed the management of several RASFF notifications recorded in previous years relating to exceedances of maximum limits for aflatoxin contamination, absence of a health certificate or analysis reports and detection of errors in health certificates during EU import controls.

91. Notifications have been sent to the PAFDs concerned who have returned most of the investigation reports within the deadlines, even if in some cases longer delays have been recorded following changes of responsible persons or contact email addresses not updated as provided by the procedure.

92. Although the procedure for managing RASFF notifications provides for an investigation to be carried out for each case, this does not systematically involve visit to FBOs implicated (i.e. one of the visited operators involved in 14 RASFF notifications in 2017 was subject to only two inspections the same year).

93. No global analysis is carried out in the event of repetition. In the case of the operator previously cited, although the subject of 14 notifications in 2017 and already eight for
2018, investigations have not led to requests for changes to the operator's HACCP system or self-control plan.

94. Notifications concerning issuance dates errors detected in the health certificates issued by the PAFDs have not been the subject of adequate investigation by PAFDs nor of an overall investigation on the corrective actions within the unit in charge of issuing health certificates. Only investigations of the operator production records were carried out.

95. While regular reports on registered RASFF notifications follow-up and individual investigation results are prepared by the NCP to inform CCAs management, it has not been demonstrated that an overall analysis of the root causes of common deficiencies of the control system, or of its implementation, identified during the investigation is carried out. The inadequacy of some investigations and therefore the absence of a corrective action proposed to resolve the problems in issuing health certificates were also not detected.

96. The NCP is currently working with FSIS developers to enable the use of the database to more easily exchange RASFF notifications and investigation reports, as well as information collected on follow-up and causes. This must facilitate the exchange, the analysis of the data collected and monitoring the respect of reporting deadlines. A project was presented to the audit team and is expected to be implemented in 2019. Trainings were also provided to the personnel involved in the PAFDs in 2017.

**Conclusion on Response to RASFF Notifications**

97. While the mechanisms and responsibilities for the management and monitoring of RASFF notifications are well established, their implementation is weakened by delays in the transmission of information and the inadequacy of certain investigations carried out by the CA. This does not allow the NCP to provide a consistent and timely response to the causes and corrective actions to EU as requested by Chapter IV, section 1 Regulation (EC) No 178/2002 and recommended by CAC / GL 25-1997.

**6 Overall Conclusions**

Overall, Turkey has the necessary legal and organisational framework for the implementation of the control of aflatoxin contamination in dried figs for export to the EU.

Public authorities as well as many actors in the production and marketing sector continue to promote the research and implementation of good agricultural practices for the prevention and reduction of aflatoxin contamination of dried figs at the farm level. There is currently no such approach to promoting good manufacturing practices in the processing and distribution sector.

The audit team also noted shortcomings in the implementation of control measures by the relevant local authorities, both in terms of sampling and issuing health certificates. The investigations performed by local competent authorities, of non-compliant consignments
found in the EU during import controls, are also not always adequate. The effectiveness of the HACCP plans (and related own-checks) implemented by the processors involved are also not called into question in view of the recurrence and high number of notifications.

These shortcomings call into question the ability of Turkey's current control system to verify that exported dried fig consignments meet the limits set by Regulation (EC) No 1881/2006 and to reduce the number of registered notifications.

The CA addressed the recommendations of the previous audit.

7 CLOSING MEETING

A closing meeting was held on 29 November 2018 with representatives of the CCA and other CAs concerned. At this meeting the audit team presented the preliminary findings of the audit. The CAs provided additional information/clarifications and outlined further steps to be taken to make the system of official controls in the scope of this audit more efficient.
8 RECOMMENDATIONS

<table>
<thead>
<tr>
<th>No.</th>
<th>Recommendation</th>
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</table>
| 1.  | Ensure that health certificates issued for dried figs intended for export to EU following Article 5 of Regulation (EU) No 884/2014 are correctly issued after the implementation of the required verifications.  
*Recommendation based on conclusion set out in paragraph No 59.*  
*Associated finding set out in paragraphs No 54 to 57.* |
| 2.  | Ensure that official samples are collected and prepared in the same way or in an equivalent procedure to the requirements of Regulation (EC) No 401/2006 in order to not compromise the representativeness of analysis results.  
*Recommendation based on conclusion set out in paragraph No 70.*  
*Associated finding set out in paragraphs No 66 to 68.* |
| 3.  | Ensure that EU RASFF notifications are subject to adequate investigations to provide correct information on the outcome and to take adequate corrective action as required by Chapter IV, section 1 Regulation (EC) No 178/2002 and Codex Alimentarius CAC/GL 25-1997.  
*Recommendation based on conclusion set out in paragraph No 97.*  
*Associated finding set out in paragraph No 93 to 95.* |

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

<table>
<thead>
<tr>
<th>Legal Reference</th>
<th>Official Journal</th>
<th>Title</th>
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## Annex 2 - Standards Quoted in the Report

<table>
<thead>
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<th>Reference number</th>
<th>Full title</th>
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