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Pilot project on the implementation of SSD2 in the frame of the electronic transmission of harmonised data collection of analytical results to EFSA

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Abstract

The present report describes the work done in Portugal under the Pilot project on the implementation of SSD2 in the frame of the electronic transmission of harmonised data collection of analytical results to EFSA and corresponds to deliverable D6 "Report on SSD2 pilot results". This document describes all the procedure to the encoding and mapping for the chemical contaminants, pesticide residues, biological monitoring and food additives data from the Portuguese authorities, how that correspondence is made for the Standard Sample Description ver.2 (SSD2), the transformations required to support the controlled terminology supplied by EFSA, the transformation made on the national database PT.ON.DATA to support the new domains and the SSD2 languages. This document describes also the challenges encountered during the implementation of the standard model and makes a general analysis on its limitations and potential developments. OC/EFSA/DCM/2013/05

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Key words: SSD2, controlled terminology, biological monitoring, chemical contaminants, food additives, pesticide residues.

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Summary

The execution of the “Pilot project on the implementation of SSD2 in the frame of the electronic transmission of harmonised data collection of analytical results to EFSA” in Portugal (CONTRACT NUMBER – OC/EFSA/DCM/2013/05-CT08) started in July 2014 with the overall objective of testing the suitability and effectiveness of Standard Sample Description ver. 2.0 (SSD2) for the reporting of data to EFSA in the data domains of chemical contaminants, pesticide residues, additives and, biological monitoring.

The project specific objectives are to:

- i) provide EFSA with draft specific reporting requirements for SSD2, for chemical contaminants, pesticide residues, additives and biological monitoring (Deliverable D1a);
- ii) test the draft specific reporting requirements with data transmissions in 2014 on chemical contaminants, pesticide residues, additives, biological monitoring to verify if the adaptation of the existent transmission requirements to the new SSD2 data model is working correctly (Deliverable D1b);
- iii) provide EFSA with a “Data standardisation document” taking into account the “Draft harmonised specific requirements for SSD2” provided by EFSA and including the mapping between the national controlled terminologies and the SSD2 terminologies for each source databases, and also including the mapping to the current standards (Deliverable D2);
- iv) adapt the national information management system “alimentos PT.ON.DATA” developed under article 36 project CFP/EFSA/DATEX/2011/01/02 to comply with SSD2 specific data elements, controlled terminologies and validation rules;
- v) improve the harmonization of data collection within the country among the different data domains;
- vi) perform 2015 data transmissions (chemical contaminants and additives occurrence, pesticide residues and biological monitoring) to EFSA in both SSD2 and SSD1 or biological monitoring formats (Deliverables D3 and D4);
- vii) provide EFSA with a detailed “Report on SSD2 pilot results” describing the work and tools developed, challenges encountered, experience gained in testing SSD2, and recommendations for EFSA on the effectiveness and suitability of the SSD2 in the different domains (Deliverables D5 and D6).

This document corresponds to D6, all the procedure for the encoding and mapping for the chemical contaminants, pesticide residues, biological monitoring and food additives data from the Portuguese authorities, how that correspondence is made for the Standard Sample Description ver.2 (SSD2), the transformations required to support the controlled terminology supplied by EFSA, the transformation made on the national database “alimentos PT.ON.DATA” to support the new domains and the SSD2 languages. This document describes also the challenges encountered during the implementation of the standard model and makes a general analysis on its limitations and potential developments.

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1. Introduction

1.1. Background and Terms of Reference as provided by the requestor

Article 33 of the Regulation (EC) 178/2002¹ of the European Parliament and of the Council states that EFSA:

- “shall search for, collect, collate, analyse and summarise relevant scientific and technical data in the fields within its mission. This shall involve in particular the collection of data relating to food consumption and the exposure of individuals to risks related to the consumption of food”;
- “shall work in close cooperation with all organisations operating in the field of data collection, including those from applicant countries, third countries or international bodies”.

In addition, specific EU legislation on data collection exists for specific data collection domains:

- For the pesticide area, Article 30 of Regulation (EC) No 396/2005² requires Member States to submit the results of the pesticide monitoring programmes on annual basis to EFSA and to the Commission. Commission Implementing Regulation (EU) No 1274/2011³ and Implementing Regulation (EU) No 788/2012⁴ specify that for the reporting of the results of the EU coordinated multiannual control programme on pesticide residues in food carried out in the years 2012-2016, the monitoring data must be reported to EFSA according to the Standard Sample Description (SSD) specifications. According to Article 31(2) of Regulation (EC) No 396/2005 the implementing measures relating to the submission of data have to be agreed with Member States according to Comitology procedures (agreement to be reached within the Standing Committee on the Food Chain and Animal Health (SCoFCAH) – pesticide residue section).
- For contaminants, Regulation (EC) No 2002/32⁵ and Regulation (EC) No 1881/2006⁶ provide a legal reference for Member States to submit data from official controls to EFSA on specific contaminants/contaminant groups.
- For zoonoses/microbiological data, Directive 2003/99/EC⁷ provides a legal reference and specification for Member States to submit data to EFSA.

In 2010 the SSD Guidance Document⁸ and in 2014 the Guidance on Data Exchange (GDE)⁹ were published defining a standard format to transmit chemical occurrence analytical data in food and feed

¹ REGULATION (EC) No 178/2002 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL, of 28 January 2002 laying down

² 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 OJ L 70, 16.3.2005, p. 1-16.

³ COMMISSION IMPLEMENTING REGULATION (EU) No 1274/2011 of 7 December 2011 concerning a coordinated multiannual control programme of the Union for 2012, 2013 and 2014 to ensure compliance with maximum residue levels of pesticide and to assess the consumer exposure to pesticide residues in and on food of plant and animal origin.

⁴ COMMISSION IMPLEMENTING REGULATION (EU) No 788/2012 of 31 August 2012 concerning a coordinated multiannual control programme of the Union for 2013, 2014 and 2015 to ensure compliance with maximum residue levels of pesticides and to assess the consumer exposure to pesticide residues in and on food of plant and animal origin, OJ L 235, 1.9.2012, p. 8-27

⁵ DIRECTIVE 2002/32/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 7 May 2002 on undesirable substances in animal feed.

⁶ REGULATION (EC) No 1881/2006 of 19 December 2006 setting maximum levels for certain contaminants in foodstuffs

⁷ DIRECTIVE 2003/99/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 November 2003 on the monitoring of zoonoses and zoonotic agents, amending Council Decision 90/424/EEC and repealing Council Directive 92/117/EEC

⁸ European Food Safety Authority; Standard sample description for food and feed. EFSA Journal. 2010; 8(1): 1457 [54 pp.]. doi:10.2903/j.efsa.2010.1457. Available online: www.efsa.europa.eu

⁹ European Food Safety Authority; Guidance on Data Exchange 2.0 EFSA Journal 2014;12(12):3945 doi: 10.2903/j.efsa.2014.3945. Available online: www.efsa.europa.eu/en/efsajournal/pub/3945.htm

samples to EFSA. These guidance documents describe the data model and data interchange protocol¹⁰ for reporting the results of laboratory tests on food and feed samples in several food domains (contaminants, pesticides, etc.).

Since 2010, the use of the SSD has been fully implemented and used in the national competent authorities and laboratories in 27 Member States and two EFTA countries (Iceland and Norway) involved in the pesticide monitoring data collection. In addition to the general SSD Guidance Document mentioned above, an EFSA Guidance Document on the use of the SSD specific for pesticide data reporting¹¹ has been produced and is reviewed on a yearly basis.

For chemical contaminants data collection, through Article 36¹² grant procedures EFSA has provided funding to official reporting organisations in Member States to implement the SSD within their data management systems. Ireland, Belgium, Sweden, Romania, Latvia, Austria, Slovakia, Germany, Hungary, Denmark, Cyprus, Greece, Finland, Italy, the Netherlands, Portugal, Bulgaria and Poland have received funding and integrated the SSD within their data reporting systems. Additional support for remaining countries will be provided in 2013 (EFSA-M-2013-0181).

In 2011, the Biological Monitoring Unit (BIOMO) ran a pilot study [EFSA-Q-2011-00174] for the collection of Antimicrobial Resistance (AMR) data at isolate-based level. The existing SSD model could not be entirely adopted and consequently a preliminary *ad-hoc* data model was developed for the pilot. As the two data models were similar, as an outcome of the pilot study, the "Working group for the provision of zoonoses data in XML and Excel format" [EFSA-Q-2011-00226] proposed to extend the SSD to be compatible with the current draft format on Antimicrobial Resistance data at isolate-based level.

In addition, the EFSA Advisory Forum, aware of the proliferation of data transmission standards in the different data collection domains, prepared a technical report presented at a meeting in Poland 28-29 September 2011¹³. This document contains the following recommendation:

"A Task Force should be established to coordinate improvements in data and process integration and act as a horizontal review group on the outcomes from the various domain groups, taking into consideration all existing standards. The composition of this Task Force should ensure that all domains are represented. This group in particular should have a role in the development of a common catalogue for all data collection purposes in order to enable maximum use of data collected across the different areas of expertise. It should not be the role of the Task Force to propose new areas of work or standards."

Therefore, a Working Group on SSD Extension (WG-SSD2) was established in 2012 to extend the SSD to include zoonotic agents in food and animals, antimicrobial resistance and food additives, and to provide a framework for the collection of harmonised analytical measurement data on chemical and microbiological contaminants in different matrices (e.g. food, feed, animals, water, environmental samples, food contact materials).

10 Electronic data interchange: is the structured transmission of data between organizations by electronic means. It is used to transfer electronic documents or business data from one computer system to another computer system.

11 European Food Safety Authority; Use of the EFSA Standard Sample Description for the reporting of data on the control of pesticide residues in food and feed according to Regulation (EC) No 396/2005. EFSA Journal 2012;10(3):2628. [52 pp.] doi:10.2903/j.efsa.2012.2628. Available online: www.efsa.europa.eu/efsajournal

12 Electronic Transmission of Chemical Occurrence Data - CFP/EFSA/DATEX/2009/01, CFP/EFSA/DATEX/2010/01, CFP/EFSA/DATEX/2010/03, CFP/EFSA/DATEX/2011/01, GP/EFSA/DCM/2012/01

13 Technical Report of the EFSA Advisory Forum Discussion Group on Data Collection

The amended standard proposed by the working group WG-SSD2 is called Standard Sample Description version 2 (SSD2).

Since SSD is already used for submitting pesticide residue monitoring data to EFSA, the impact of switching from SSD1 (i.e. the existing version of the SSD data model) to SSD2 needs to be tested before the new format is presented to the SCoFAH for taking note according to Comitology procedures.

The purpose of this “Pilot project on the implementation of SSD2 in the frame of the electronic transmission of harmonised data collection of analytical results to EFSA” (CONTRACT NUMBER – OC/EFSA/DCM/2013/05-CT08) is to test whether the SSD2 is a suitable and effective tool for the reporting data to EFSA in different data collection domains, extending the functionality of the current SSD (i.e. SSD1).

The deliveries of the project have been agreed as follows:

Table 1: Project deliverables

Deliverable	Description
D1a	“Draft specific requirements for SSD2” data transmission
D1b	Data files (manually generated) in SSD2-XML format transmitted to the EFSA Data Collection Framework (DCF), and data files with the same data in SSD1-XML and data formats for microbiological data
D2	“Data standardisation document”
D3	Data transmitted to the EFSA Data Collection Framework (DCF) according to SSD1 XML format for chemicals or other existent standard format for microbiological data
D4	Data transmitted to the EFSA DCF according to the SSD2-XML file format
D5	Draft version of the “Report on SSD2 pilot results”
D6	Final version of “Report on SSD2 pilot results”, addressing EFSA comments on the draft report (D5).

2. Data and Methodologies

2.1. Data

The collection of analytical data on food and feed is an important task of the European Food Safety Authority and an essential component in risk assessment. Following the statements of Regulation (EC) n° 178/2002 Member States (MS) have the responsibility to report to EFSA data produced under the official control of food and feed. This information reached EFSA under various formats and supports compromising their use due to the slowness and difficulty of compile and compare data. Therefore, to improve the comparability of technical data received and analyses and in order to facilitate their transmission, EFSA created in 2010, a data model that standardizes the language and the information to report the results of laboratory tests on food and feed samples in several domains (contaminants, pesticides, etc.) designated by “Standard Sample Description for food and feed” – SSD11 and the “Guidance on Data Exchange” 12, both recommended for use for data transmissions by MS. Since then, the use of the SSD has been fully implemented by Member States and used in the national competent authorities and laboratories involved in the pesticide monitoring and chemical contaminants data collections.

In 2011 the EFSA Advisory Forum, aware of the proliferation of data transmission standards in the different data collection domains, prepared a technical report presented at a meeting in Poland 28-29 September 2011¹⁴ recommending that a Task Force should be established to coordinate improvements in data and process integration and act as a horizontal review group on the outcomes from the various domain groups, taking into consideration all existing standards.

Therefore, in 2012, a Working Group on SSD Extension (WG-SSD2) was established to extend the SSD to include zoonotic agents in food and animals, antimicrobial resistance and food additives, and to provide a framework for the collection of harmonised analytical measurement data on chemical and microbiological contaminants in different matrices (e.g. food, feed, animals, water, environmental samples, food contact materials).

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- iv. adapt the national information management system "alimentos. PT.ON.DATA" developed under article 36 project CFP/EFSA/DATEX/2011/01/02 to comply with SSD2 specific data elements, controlled terminologies and validation rules; v) improve the harmonization of data collection within the country among the different data domains;
- v. perform 2015 data transmissions (chemical contaminants and additives occurrence, pesticide residues and biological monitoring) to EFSA in both SSD2 and SSD1 or biological monitoring formats (Deliverables D3 and D4);
- vi. provide EFSA with a detailed "Report on SSD2 pilot results" describing the work and tools developed, challenges encountered, experience gained in testing SSD2, and recommendations for EFSA on the effectiveness and suitability of the SSD2 in the different domains (Deliverables D5 and D6).

This document corresponds to D6, all the procedure for the encoding and mapping for the chemical contaminants, pesticide residues, biological monitoring and food additives data from the Portuguese control plans, how that correspondence is made for the Standard Sample Description ver.2 (SSD2), the transformations required to support the controlled terminology supplied by EFSA, the transformation made on the national database "alimentos PT.ON.DATA" to support the new domains and the SSD2 languages. This document describes also the challenges encountered during the implementation of the standard model and makes a general analysis on its limitations and potential developments.

¹⁴ Technical Report of the EFSA Advisory Forum Discussion Group on Data Collection

Portugal currently has two different National Competent Authorities operating the national official control plans (DGAV and ASAE) and several of official laboratories (ASAE, INSA, INIAV and IPMA) that carrying out the analysis of the national official control of food, feed and animal samples. Each authority has their own databases and different processes for recording samples and laboratory data, and therefore the systems (structure) and vocabulary used are different. Data from each source (sample and analytical data information) is migrated, collected, and stored in the new national database “alimentos PT.ON.DATA 2.0” with detailed analytical data on food chemical occurrence, food additives, pesticide residues and biological monitoring, the system converts this data in SSD2 specific data elements, controlled terminologies according to all the specific business rules.

One objective of this project was to adapt the “alimentos PT.ON.DATA” to the other data domains, and adapt it to fulfil all needed information. The new developed database was adopted by DGAV as a management tool to control all the control plans coordinated by this Authority.

2.2. Methodologies

2.2.1. Encoding and mapping strategy

Documents, including Excel file data models, were searched at EFSA’s website and also provided by the national competent authorities and by the national official laboratories; the documents provided by the national CA’s were the controlled terminologies and the data elements in use in their databases.

The national database “alimentos PT.ON.DATA” was built following the SSD1 architecture for Chemical Contaminants, with the addition of secondary tables that were created to aid data retrieval for further processing. The system was prepared to follow the mapping between the SSD1 and SSD2 standards provided by EFSA [ref. A]. It was also updated to receive data from the other domains included on the Portuguese control plans.

In order to accomplish the task of performing the correlation between the data stored in the different systems belonging to the competent authorities (LIMS, SIPACE, MS Access files, etc.), and the multiple data elements currently specified with the new proposed standard SSD2, an initial process of analysis was planned and its completion led to the mapping solution which will be described later on, in the Results section.

The data elements, as well as the controlled vocabularies in use by the competent authorities, also referred in 2.1.1, were collected and mapped to EFSA’s SSD2 elements and catalogues.

As for the process of mapping the national competent authorities controlled terminologies related to food matrixes, we used the version of the FoodEx2 catalogue (foodex2-2015-05-06-finalrev2-0-6a), made available through the EFSA’s online document management system¹⁵.

2.2.2. Specific requirements to report data in SSD2 model by data domain

After discussion between EFSA and all the countries involved in this pilot project, the specific requirements to report data in SSD2 for all data domains with the constraints for the data transmission were created. Those documents were based on the opinion of the countries and the requirements were defined by each data domain.

¹⁵ <https://dms.efsa.europa.eu/otcs/cs.exe?func=ll&objId=11023773&objAction=browse&sort=name>

Chapter 3.3 contains the tables with the constraints by specific requirements suggested by the discussions between MS and EFSA and also the constraints that Portugal intends to implement in the national database organised as follows:

- SSD2 Element code;
- SSD2 Element Label;
- Constraints discussed with EFSA;
- Constraints for PT national database;
- Comment.

2.3. Materials

2.3.1. Relevant documents

All the documents used to produce deliverable D6 are listed under REFERENCES.

2.3.2. Software Tools

Microsoft Office Excel 2007

Foodex2 browsing tool

As for the development that took place while the received data was being prepared, some software development tools were used by the IT members of the team. The tools that are going to be described allowed the creation of multiples single purpose tools which helped both IT and Technical members of the team with the current data report to EFSA, following the new version of the standard (SSD2) and the implied data transformation.

Both types of software tools, the ones used for development and the ones that were the outcome of that development, were chosen with the purpose of creating useful applications in the smallest amount of time possible in order to meet the data reporting deadline, since that would be a very hard task to achieve if the Technical members of the team were to perform the data transformation under the SSD2 rules all manually.

For the software development, the IDE used was Microsoft's Visual Studio 2013 to create a Windows Form application under the .NET 4.5 Framework.

As for the Database management tool, the software used was Microsoft's SQL Server 2014 Management Studio, since it facilitated the process of importing the files with the information to be reported, once these files were prepared by the Technical members. The Excel files were imported using the SQL Server Import and Export Wizard, all the remaining operations applied to the data were performed using SQL related commands and tasks.

3. Assessment/Results

3.1. Overview of national data sources

The data sources of this project are discriminated in table 1 below.

Table 2: Data sources overview

Entity	Matrices	Parameter	Data Source
DGAV (General Directorate of Food and Veterinary Affairs)	Food and Feed; Animal samples	Chemical contaminants; Biological Monitoring; Pesticide Residues	SIPACE database; Access database; Excel file; XML file
ASAE (Economic and Food Safety Authority)	Food	Chemical contaminants; Biological Monitoring; Food Additives	LIMS (LABWAY); GESTASAE database; Excel file
IPMA (Portuguese Sea and Atmosphere Institute)	Food	Chemical contaminants; Biological Monitoring	Excel file
INIAV (National Agrarian and Veterinary Research Institute)	Food and Feed	Chemical contaminants; Biological Monitoring; Pesticide residues	LIMS (NAUTILUS); Excel file
INSA (National Health Institute Doutor Ricardo Jorge)	Food	Chemical contaminants; Biological Monitoring; Food Additives	LIMS (SIGALIS); Excel file

Regarding the different entities:

- DGAV:

The two different databases (SIPACE and Access) present in this authority, feature data from national official control plans (PIGA, CAA, PNPR and PNCS).

SIPACE database contains sampling collected and aggregated analytical data, which is converted in a excel file. All controlled terminologies such as parameters, analytical method, etc., were converted to SSD2 catalogues provided by EFSA.

Access database contains sampling and analytical data, which is exported to Excel file.

- ASAE:

The database GESTASAE and the laboratory system LABWAY feature data from the national official control plan PNCA.

GESTASAE database contains sampling data and LABWAY system contains analytical data, this information can be exported to an excel file. All controlled terminologies such as parameters, analytical method, etc., were converted to SSD2 catalogues provided by EFSA.

- IPMA:

This entity is an official laboratory for the analyses of the samples collected in the national official control plans PNPR and PIGA.

There isn't any electronic management system for recording samples and laboratory analysis data, nor any type of controlled vocabulary.

- INIAV:

This entity is an official laboratory for the analyses of the samples collected in the national official control plans PNPR, CAA, PIGA and PNCS.

Laboratory system NAUTILUS contains analytical data, and this information can be exported to an excel file. All controlled terminologies such as parameters, analytical method, etc., were converted to SSD2 catalogues provided by EFSA. Some information needed is sent in an additional Excel file since it is not possible to export from the LIMS system (LOD, LOQ, etc.). Some information was aggregated and it was necessary to desegregate them to make the transmission.

- INSA:

This entity is responsible for reporting the data of food additives and chemical contaminants in SSD1 format to EFSA, although when needed performs analyses as an official laboratory for samples collected in the aim of the national official control plans.

Laboratory system SIGALIS contains analytical data, and this information can be exported to an excel file. Although the system has some controlled vocabularies, they seem to be very simplified and not completely compatible with SSD2.

3.2. Mapping between the current systems data elements and the SSD2 data elements

Regarding the "alimentos PT.ON.DATA" platform and its database, after the evaluation of multiple elements and different key points related to the database, we concluded that, as result of having two main tables with an almost identical format to the SSD1 which were used to store all information originated from the competent authorities' reports, the process of mapping the SSD1 data gathered via the platform to the SSD2 standard could be done by following the correspondence between the two standards already established by EFSA for the contaminants and pesticide area.

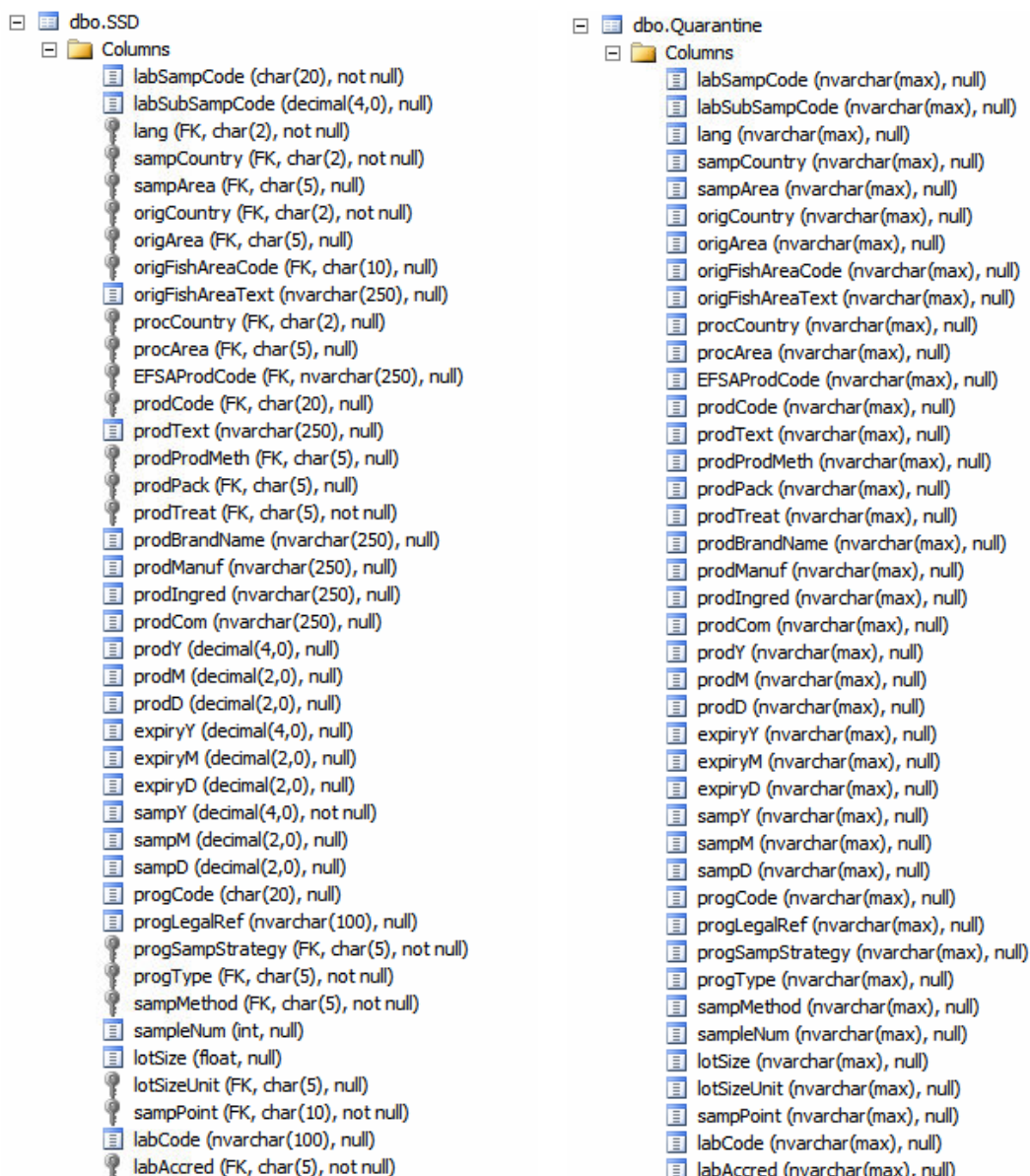


Figure 1: Current SSD v.1 primary tables structure in the Database

Using the mapping table present in the document that describes the SSD2 standard, it was possible and clear to implement an intermediary tool that takes the existing “alimentos PT.ON.DATA” database, primarily the dbo.SSD and dbo.Quarantine tables, and populate a new database with the same data transformed into the SSD2 standard. To better describe this process, the “Mapping from SSD1 to SSD2 in the contaminants and pesticide area” table from the Standard Sample Description ver. 2.0 document published by EFSA were thoroughly examined and every mapping between the two versions of the SSD was coded into a new custom tool that searched for the SSD1 field and its value inside the SSD1 database (taking into account whether an controlled terminology was used or not), and populate the corresponding SSD2 field inside the SSD2 database with its correct value.

Since the mapping of SSD1 data model against SSD2 was already presented in the document “GUIDANCE OF EFSA - Standard Sample Description ver. 2.0”, only the mapping of PRV-DM and AMR-DM against SSD2 data model was executed as described at PT-D1

Regarding the domains of biological monitoring and food additives a “mapping files” tool was built. This new tool read the files sent by the national authorities for the referred domains and perform an automatic mapping and encoding of the data, where possible, based on the mapping of the different data sources to the SSD2 standard.

3.3. Defining specific requirements to report data in SSD2 model by data domain

Summary tables describing the specific requirements to report data in SSD2 model by data domain were produced using the approach described in point 2.1.4., respectively, Table 2 - Specific Requirements to report data in SSD2 in food additive data domain, Table 3 - Specific Requirements to report data in SSD2 in chemical contaminant data domain, Table 4 - Specific Requirements to report data in SSD2 in pesticide residues data domain, Table 5 - Specific Requirements to report data in SSD2 in biological monitoring data domain (PRV-DM and AMR-DM).

Table 3: Specific Requirements to report data in SSD2 in food additive data domain

SSD2		Constraints discussed with EFSA	Constraints in PT system
Element Code	Element Label		
A.01	Local organisation identification code	O	R
A.02	Local organisation country	O	R
A.03	Local organisation additional information	O	O
B.01	Sampling programme identification code	O	R
B.02	Programme legal reference	R	R
B.03	Sampling strategy	M	M
B.04	Programme type	M	M
B.05	Sampling method	M	M
B.06	Sampler	R	O
B.07	Sampling point	M	M
B.08	Additional sampling program information	O	O
C.01	Sampling event identification code	O	O
C.02	Sampling unit type	O	R
C.03	Sampling unit size	O	O
C.04	Sampling unit size unit	O	O
C.05	Other sampling unit identifications	O	O
C.06	Additional sampling event information	O	O
D.01	Sample taken identification code	M	M

SSD2		Constraints discussed with EFSA	Constraints in PT system
Element Code	Element Label		
D.02	Reporting country	R	M
D.03	Country of sampling	M	M
D.04	Area of sampling	O	R
D.05	Reporting year	M	M
D.06	Year of sampling	M	M
D.07	Month of sampling	O	M
D.08	Day of sampling	O	M
D.09	Sample taken size	O	O
D.10	Sample taken size unit	O	O (M if D.09 is filled)
D.11	Additional Sample taken information	O	O
E.01	Type of matrix	M	M
E.02	Coded description of the matrix of the sample taken	M	M
E.03	Text description of the matrix of the sample taken	D	
E.04	Country of origin of the sample taken	M	M
E.05	Area of origin of the sample taken	O	O
E.06	Area of origin for fisheries or aquaculture activities code of the sample taken	O	R
E.07	Area of origin for fisheries or aquaculture activities text of the sample taken	O	R
E.08	Country of processing of the sample taken	O	O

SSD2		Constraints discussed with EFSA	Constraints in PT system
Element Code	Element Label		
E.09	Area of processing of the sample taken	O	O
E.10	Additional information on the matrix sampled	M	
F.01	Sample analysed identification code	M	O
F.02	Sample analysis reference time	O	O
F.03	Year of analysis	M	M
F.04	Month of analysis	O	O
F.05	Day of analysis	O	O
F.06	Additional information on the sample analysed	O	O
G.01	Coded description of the analysed matrix	M	M
G.02	Text description of the matrix analysed	M	M
G.03	Additional information on the analysed matrix	O	O
H.01	Sample analysed portion sequence	O	NA
H.02	Sample analysed portion size	M	O
H.03	Sample analysed portion size unit	D	M if H.02 is filled
H.04	Additional information on the sample analysed portion	O	
J.01	Laboratory identification code	N	R
J.02	Laboratory accreditation	N	M
J.03	Laboratory country	N	O
J.04	Additional information on the laboratory	N	O

SSD2		Constraints discussed with EFSA	Constraints in PT system
Element Code	Element Label		
K.01	Type of parameter	O	M
K.02	Coded description of the parameter	M	M
K.03	Parameter text	O	M only if K.02 is listed "Not in list"
L.01	Analytical method identification	O	O
L.02	Analytical method reference code	M	R
L.03	Analytical method type	M	R
L.04	Analytical method code	D	M
L.05	Analytical method text	O	Mandatory only if L.04 is listed "unknown"
L.06	Additional information on the analytical method	O	O
M.01	Result identification code	O	M
M.02	Accreditation procedure for the analytical method	M	O
M.03	Result unit	D	M
M.04	Result LOD	O	M
M.05	Result LOQ	M	M
M.06	Result lower limit of the working range	R	O
M.07	Result upper limit of the working range	M	O
M.08	CC alfa	D	O

SSD2		Constraints discussed with EFSA	Constraints in PT system
Element Code	Element Label		
M.09	CC beta	M	O
M.10	Result value	O	M
M.11	Result value recovery rate	O	O
M.12	Result value corrected for recovery	N	R
M.13	Expression of result percentage	N	
M.14	Expression of result type	D	M
M.15	Result qualitative value	O	M if the result is qualitative
M.16	Type of result	O	M
M.17	Result value uncertainty	O	O
M.18	Result value uncertainty Standard deviation	M	O
M.19	Result reference identification	O	O
M.20	Additional information on the result	M	O
N.01	Limit for the result evaluation	O	O
N.02	Limit for the result evaluation (High limit)	O	R
N.03	Type of limit for the result evaluation	N	R
N.04	Evaluation of the result	R	M where ML exist
N.05	Action Taken	O	O
N.06	Additional information on the evaluation	R	O

Legend: M – Mandatory; R – Recommended; O – Optional; D – Dependent; N – Not applicable

Table 4: Specific Requirements to report data in SSD2 in chemical contaminant data domain

SSD2		Constraints discussed with EFSA	Constraints in PT system	Comments
Element code	Element Label			
A.01	Local organisation identification code	R	R	
A.02	Local organisation country	R	R	
A.03	Local organisation additional information	O	O	
B.01	Sampling programme identification code	R	R	
B.02	Programme legal reference	M/R (To specify which case)	R	
B.03	Sampling strategy	M	M	
B.04	Programme type	M	M	
B.05	Sampling method	M	M	
B.06	Sampler	M	O	
B.07	Sampling point	M	M	
B.08	Additional sampling program information	O	O	
C.01	Sampling event identification code	O	O	
C.02	Sampling unit type	O	O	
C.03	Sampling unit size	R	R	
C.04	Sampling unit size unit	D	M when C.03 is reported	
C.05	Other sampling unit identifications	O	O	

SSD2		Constraints discussed with EFSA	Constraints in PT system	Comments
Element code	Element Label			
C.06	Additional sampling event information	O	O	
D.01	Sample taken identification code	M	M	
D.02	Reporting country	M	M	
D.03	Country of sampling	M	M	
D.04	Area of sampling	R	R	
D.05	Reporting year	M	M	
D.06	Year of sampling	M	M	
D.07	Month of sampling	M for Acrylamide	O	M for acrylamide
D.08	Day of sampling	O	O	
D.09	Sample taken size	R	R	
D.10	Sample taken size unit	D	M when D.09 is reported	
D.11	Additional Sample taken information	O	O	
E.01	Type of matrix	M	M	
E.02	Coded description of the matrix of the sample taken	M	M	
E.03	Text description of the matrix of the sample taken	O	O	
E.04	Country of origin of the sample taken	M	M	
E.05	Area of origin of the sample taken	O	O	

SSD2		Constraints discussed with EFSA	Constraints in PT system	Comments
Element code	Element Label			
E.06	Area of origin for fisheries or aquaculture activities code of the sample taken	R for Brominated Flame Retardants (BFRs)	R	R for BFRs, mercury and derivatives
E.07	Area of origin for fisheries or aquaculture activities text of the sample taken	R	R	R for BFRs
E.08	Country of processing of the sample taken	O	R	
E.09	Area of processing of the sample taken	O	O	
E.10	Additional information on the matrix sampled	M/R (see specific requirements)	O	M for acrylamide
F.01	Sample analysed identification code	M	M	
F.02	Sample analysis reference time	O	O	
F.03	Year of analysis	M	M	
F.04	Month of analysis	O	O	
F.05	Day of analysis	O	O	
F.06	Additional information on the sample analysed	O	O	
G.01	Coded description of the analysed matrix	M	M	
G.02	Text description of the matrix analysed	M	M	R for acrylamide
G.03	Additional information on the analysed matrix	O	O	
H.01	Sample analysed portion sequence	R	R	

SSD2		Constraints discussed with EFSA	Constraints in PT system	Comments
Element code	Element Label			
H.02	Sample analysed portion size	O	O	
H.03	Sample analysed portion size unit	D	O	
H.04	Additional information on the sample analysed portion	O	O	
J.01	Laboratory identification code	N	R	
J.02	Laboratory accreditation	N	M	
J.03	Laboratory country	N	O	
J.04	Additional information on the laboratory	N	O	
K.01	Type of parameter	R	M	
K.02	Coded description of the parameter	M	M	R for BFRs, arsenic and derivatives
K.03	Parameter texto	O	M	
L.01	Analytical method identification	O	O	
L.02	Analytical method reference code	M	R	
L.03	Analytical method type	M	R	
L.04	Analytical method code	D	M	
L.05	Analytical methodtext	M	M	3-MCPD Esters: mandatory under conditions for example when the analytical method code is not classified. In that case the analytical method

SSD2		Constraints discussed with EFSA	Constraints in PT system	Comments
Element code	Element Label			
				should be reported in this field
L.06	Additional information on the analytical method	R	O	
M.01	Result identification code	R	M	
M.02	Accreditation procedure for the analytical method	M	R	
M.03	Result unit	D	M	
M.04	Result LOD	O	M	
M.05	Result LOQ	M	M	
M.06	Result lower limit of the working range	R	O	
M.07	Result upper limit of the working range	M	O	
M.08	CC alfa	D	O	
M.09	CC beta	M	O	
M.10	Result value	O	M	
M.11	Result value recovery rate	O	O	R for PAHs
M.12	Result value corrected for recovery	O	R	

SSD2		Constraints discussed with EFSA	Constraints in PT system	Comments
Element code	Element Label			
M.13	Expression of result percentage	O	M	M for BFRs, dioxins, DL-PCBs and dioxin-like PCBS, mineral oils, 3-MCPD Esters, mycotoxins
M.14	Expression of result type	D	M	
M.15	Result qualitative value	R	O	
M.16	Type of result	R	M	
M.17	Result value uncertainty	M/R (see specific requirements)	R	R for PAHs, mycotoxins, cadmium and derivatives, lead and derivatives,
M.18	Result value uncertainty Standard deviation	M	R	R for acrylamide
M.19	Result reference identification	O	O	
M.20	Additional information on the result	M	O	R for dioxins, DL-PCBs, non dioxins-like PCBS, mineral oils, acrylamide, furan, mycotoxins
N.01	Limit for the result evaluation	R	O	
N.02	Limit for the result evaluation (High limit)	O	O	
N.03	Type of limit for the result evaluation	O	O	
N.04	Evaluation of the result	R	O	

SSD2		Constraints discussed with EFSA	Constraints in PT system	Comments
Element code	Element Label			
N.05	Action Taken	O	O	
N.06	Additional information on the evaluation	O	O	

Legend: M – Mandatory; R – Recommended; O – Optional; D – Dependent; N – Not applicable

Table 5: Specific Requirements to report data in SSD2 in pesticide residues data domain

SSD2		Constraints discussed with EFSA	Constraints in PT system
Element code	Element Label		
A.01	Local organisation identification code	O	R
A.02	Local organisation country	O	R
A.03	Local organisation additional information	O	O
B.01	Sampling programme identification code	O	R
B.02	Programme legal reference	M/R	R
B.03	Sampling strategy	M (conditioned by the requirements)	M
B.04	Programme type	M	M
B.05	Sampling method	M	M
B.06	Sampler	O	R

SSD2		Constraints discussed with EFSA	Constraints in PT system
Element code	Element Label		
B.07	Sampling point	M	M
B.08	Additional sampling program information	O	O
C.01	Sampling event identification code	O	O
C.02	Sampling unit type	O	O
C.03	Sampling unit size	O	O
C.04	Sampling unit size unit	O	O
C.05	Other sampling unit identifications	O	O
C.06	Additional sampling event information	O	O
D.01	Sample taken identification code	M	M
D.02	Reporting country	M	M
D.03	Country of sampling	M	M
D.04	Area of sampling	O	R
D.05	Reporting year	M	M
D.06	Year of sampling	M	M
D.07	Month of sampling	O	M
D.08	Day of sampling	O	M
D.09	Sample taken size	O	O
D.10	Sample taken size unit	O	O
D.11	Additional Sample taken information	O	O
E.01	Type of matrix	M	M
E.02	Coded description of the matrix of the sample taken	M	M

SSD2		Constraints discussed with EFSA	Constraints in PT system
Element code	Element Label		
E.03	Text description of the matrix of the sample taken	M	R
E.04	Country of origin of the sample taken	O	M
E.05	Area of origin of the sample taken	O	O
E.06	Area of origin for fisheries or aquaculture activities code of the sample taken	O	NA
E.07	Area of origin for fisheries or aquaculture activities text of the sample taken	O	NA
E.08	Country of processing of the sample taken	O	O
E.09	Area of processing of the sample taken	O	O
E.10	Additional information on the matrix sampled	O	O
F.01	Sample analysed identification code	O	O
F.02	Sample analysis reference time	O	NA
F.03	Year of analysis	M	M
F.04	Month of analysis	O	M
F.05	Day of analysis	O	M
F.06	Additional information on the sample analysed	O	O
G.01	Coded description of the analysed matrix	M	M
G.02	Text description of the matrix analysed	O	O

SSD2		Constraints discussed with EFSA	Constraints in PT system
Element code	Element Label		
G.03	Additional information on the analysed matrix	O	O
H.01	Sample analysed portion sequence	O	NA
H.02	Sample analysed portion size	O	NA
H.03	Sample analysed portion size unit	O	NA
H.04	Additional information on the sample analysed portion	O	NA
J.01	Laboratory identification code	N	M
J.02	Laboratory accreditation	N	M
J.03	Laboratory country	N	O
J.04	Additional information on the laboratory	N	O
K.01	Type of parameter	M	M
K.02	Coded description of the parameter	M	M
K.03	Parameter text	O	M only if K.02 is listed "not in list"
L.01	Analytical method identification	O	O
L.02	Analytical method reference code	M	O
L.03	Analytical method type	M	O
L.04	Analytical method code	O	M
L.05	Analytical method text	O	M only if L.04 is listed "Not in list"

SSD2		Constraints discussed with EFSA	Constraints in PT system
Element code	Element Label		
L.06	Additional information on the analytical method	R	O
M.01	Result identification code	O	M
M.02	Accreditation procedure for the analytical method	M	M
M.03	Result unit	O	M
M.04	Result LOD	O	R
M.05	Result LOQ	M	M
M.06	Result lower limit of the working range	O	NA
M.07	Result upper limit of the working range	M	NA
M.08	CC alpha	O	NA
M.09	CC beta	M	NA
M.10	Result value	N	O
M.11	Result value recovery rate	N	O
M.12	Result value corrected for recovery	N	O
M.13	Expression of result percentage	N	O
M.14	Expression of result type	M	O
M.15	Result qualitative value	O	NA
M.16	Type of result	O	M
M.17	Result value uncertainty	O	O
M.18	Result value uncertainty Standard deviation	O	O

SSD2		Constraints discussed with EFSA	Constraints in PT system
Element code	Element Label		
M.19	Result reference identification	O	O
M.20	Additional information on the result	M	O
N.01	Limit for the result evaluation	O	R
N.02	Limit for the result evaluation (High limit)	O	NA
N.03	Type of limit for the result evaluation	N	R
N.04	Evaluation of the result	O	M
N.05	Action Taken	O	O
N.06	Additional information on the evaluation	O	O

Legend: M – Mandatory; R – Recommended; O – Optional; D – Dependent; N – Not applicable

Table 6: Specific Requirements to report data in SSD2 in biological monitoring data domain (PRV-DM and AMR-DM)

SSD2		AMR			PRV		
Element code	Element Label	Constraints discussed with EFSA	Constraints in PT system	Comments	Constraints discussed with EFSA	Constraints in PT system	Comments
A.01	Local organisation identification code	O			O	R	
A.02	Local organisation country	O			O	O	

SSD2		AMR			PRV		
Element code	Element Label	Constraints discussed with EFSA	Constraints in PT system	Comments	Constraints discussed with EFSA	Constraints in PT system	Comments
A.03	Local organisation additional information	O			O	O	
B.01	Sampling programme identification code	M	M		O	R	
B.02	Programme legal reference	O			O		
B.03	Sampling strategy	M	M		M	M	
B.04	Programme type	M	M		M	M	
B.05	Sampling method	M	M	We can't find the description for AMR.51 on the data dictionary, can you please tell us where to find this information?	M	M	
B.06	Sampler	M	M		M	M	
B.07	Sampling point	M	M		M	M	

SSD2		AMR			PRV		
Element code	Element Label	Constraints discussed with EFSA	Constraints in PT system	Comments	Constraints discussed with EFSA	Constraints in PT system	Comments
B.08	Additional sampling program information	O		How can this element contains so much information, such as, total samples tested, total units tested, Number of flocks/herds under the control program, Number of animals under the control program, etc.? We think it would be better to create more elements for this information or new section?	O		
B.09	Additional sampling program information	O		Confirm that this fields (AMR.49 and 50) are not applicable in the SSD2 data model	O		
C.01	Sampling event identification code	M			M	O	
C.02	Sampling unit type	O	M		O	M	
C.03	Sampling unit size	O			O	O	
C.04	Sampling unit size unit	O	M if C.03 is filled		O		

SSD2		AMR			PRV		
Element code	Element Label	Constraints discussed with EFSA	Constraints in PT system	Comments	Constraints discussed with EFSA	Constraints in PT system	Comments
C.05	Other sampling unit identifications	O			O	O	
C.06	Additional sampling event information	M			M	O	
D.01	Sample taken identification code	M			M	M	
D.02	Reporting country	M	M		M	M	
D.03	Country of sampling	R	M		R	M	
D.04	Area of sampling	M	R		M	R	
D.05	Reporting year	M	M		M	O	
D.06	Year of sampling	M	M		M	M	
D.07	Month of sampling	M	M		O	M	
D.08	Day of sampling	O	M		O	M	
D.09	Sample taken size	O	R		O	R	
D.10	Sample taken size unit	O	M if D.09 is filled		O	M if D.09 is filled	
D.11	Additional Sample taken information	M			M	O	
E.01	Type of matrix	M	M		M	M	

SSD2		AMR			PRV		
Element code	Element Label	Constraints discussed with EFSA	Constraints in PT system	Comments	Constraints discussed with EFSA	Constraints in PT system	Comments
E.02	Coded description of the matrix of the sample taken	R			R	M	
E.03	Text description of the matrix of the sample taken	M			M	O	
E.04	Country of origin of the sample taken	N	M		N	M	
E.05	Area of origin of the sample taken	N			N	M	
E.06	Area of origin for fisheries or aquaculture activities code of the sample taken	N			N	O	
E.07	Area of origin for fisheries or aquaculture activities text of the sample taken	O			O	O	
E.08	Country of processing of the sample taken	N			N	O	
E.09	Area of processing of the sample taken	O			O	O	

SSD2		AMR			PRV		
Element code	Element Label	Constraints discussed with EFSA	Constraints in PT system	Comments	Constraints discussed with EFSA	Constraints in PT system	Comments
E.10	Additional information on the matrix sampled	O			O	O	
F.01	Sample analysed identification code	O	M		O	M if different from D.01	
F.02	Sample analysis reference time	M			M	R	
F.03	Year of analysis	M	M		M	M	
F.04	Month of analysis	M	M		O	M	
F.05	Day of analysis	O	M		O	M	
F.06	Additional information on the sample analysed	M			M	O	
G.01	Coded description of the analysed matrix	R	M		R	M	
G.02	Text description of the matrix analysed	O			O	O	
G.03	Additional information on the analysed matrix	N			O	O	
H.01	Sample analysed portion sequence	N			O	O	
H.02	Sample analysed portion size	N	R		O	R	

SSD2		AMR			PRV		
Element code	Element Label	Constraints discussed with EFSA	Constraints in PT system	Comments	Constraints discussed with EFSA	Constraints in PT system	Comments
H.03	Sample analysed portion size unit	N			O		
H.04	Additional information on the sample analysed portion	N			N	O	
I.01	Isolate identification	M	M		N)		
I.02	Coded description of the isolate	O	M		N	R	
I.03	Text description of the isolate	M	M		N	R	
I.04	Additional information on the isolate	O	R		O	R	
J.01	Laboratory identification code	O	M		O	R	
J.02	Laboratory accreditation	O	M		O	M	
J.03	Laboratory country	O			O	O	
J.04	Additional information on the laboratory	M			M	O	
K.01	Type of parameter	M			M	M	
K.02	Coded description of the parameter	O	M		O	M	

SSD2		AMR			PRV		
Element code	Element Label	Constraints discussed with EFSA	Constraints in PT system	Comments	Constraints discussed with EFSA	Constraints in PT system	Comments
K.03	Parameter text	O	M only if K.02 is listed "Not in list"		O	O	
L.01	Analytical method identification	O			O	O	
L.02	Analytical method reference code	O	M		O	M	
L.03	Analytical method type	M	M		M	M	
L.04	Analytical method code	O	M		O		Why is this element optional? We think that the analytical method should be mandatory
L.05	Analytical method text	O	M only if M.04 is listed "Not possible"		O	O	Mandatory only if L.04 is listed "unknown"
L.06	Additional information on the analytical method	M	O	Recommended for diffusion method data	M	O	
M.01	Result identification code	O	M		O	M	

SSD2		AMR			PRV		
Element code	Element Label	Constraints discussed with EFSA	Constraints in PT system	Comments	Constraints discussed with EFSA	Constraints in PT system	Comments
M.02	Accreditation procedure for the analytical method	O	R		O	R	
M.03	Result unit	O	M		O	O	Mandatory for PRV, if quantitative result, e.g. Listeria and histamine Must be left empty If Qualitative result (M.16= BIN, Qualitative Value Binary)
M.04	Result LOD	O			O		Mandatory for PRV, if M.16 resType =Non Detected Value (<LOD) Must be left empty If Qualitative result (M.16= BIN, Qualitative Value Binary)
M.05	Result LOQ	M			O		

SSD2		AMR			PRV		
Element code	Element Label	Constraints discussed with EFSA	Constraints in PT system	Comments	Constraints discussed with EFSA	Constraints in PT system	Comments
M.06	Result lower limit of the working range	M			O	R	
M.07	Result upper limit of the working range	N			N	R	
M.08	CC alpha	N			N	NA	
M.09	CC beta	M			M	NA	
M.10	Result value	N	M		N	M	
M.11	Result value recovery rate	N			N	NA	
M.12	Result value corrected for recovery	N			N	NA	
M.13	Expression of result percentage	N			N	NA	
M.14	Expression of result type	O			O	NA	
M.15	Result qualitative value	O			O		For PRV, this field should be completed only if the result value is qualitative e.g. positive/present or negative/absent. In this case the element "Result value" (M.10) should be left blank

SSD2		AMR			PRV		
Element code	Element Label	Constraints discussed with EFSA	Constraints in PT system	Comments	Constraints discussed with EFSA	Constraints in PT system	Comments
M.16	Type of result	N	M		N	M	
M.17	Result value uncertainty	N			N	O	
M.18	Result value uncertainty Standard deviation	N			N	O	
M.19	Result reference identification	O			O	O	
M.20	Additional information on the result	M	M (PT) in case of salmonella and poultry meat		O	O	
N.01	Limit for the result evaluation	O	M		O	M	
N.02	Limit for the result evaluation (High limit)	O	M		O	M	
N.03	Type of limit for the result evaluation	O	M if N.01 and N.02 are filled		O		
N.04	Evaluation of the result	N	M		N	R	
N.05	Action Taken	O	R		O	R	
N.06	Additional information on the evaluation	O			O	O	

Legend: M – Mandatory; R – Recommended; O – Optional; D – Dependent; N – Not applicable

3.4. Encoding and mapping

The mapping results are presented in tables 6 to 11 for chemical contaminants, in tables 12 to 18 for food additives, in tables 19 to 26 for pesticide residues and in tables 27 to 35 for biological monitoring.

The encoding results of controlled terminologies from the different data sources to SSD2 catalogues are presented in tables 36 to 45 for ASAE, in tables 46 to 53 for DGAV, in tables 54 to 57 for INIAV and in tables 58 to 60 for INSA.

The designation "Constant", referred in the tables, identifies terms that are not necessarily dependent of the national authority itself and their official control plans, and could remain the same for more than one year of report. These terms are automatically filled in by the system, since they are previously known. For example, since all data received are from national authorities, the SSD2 field for the reporting country information (D.02) will be 'PT' for Portugal.

The designation LIMS refers information sent from existing Laboratory Information Management System.

The term Excel refers to the format in which the data is sent to be processed by the "alimentos PT.ON.DATA".

The remaining terms refers to the name that identifies the corresponding field, present in the national authority system, in which data is retrieved.

Table 7: Chemical Contaminants sections A to C

Element Code	Element Label	Controlled terminology	M	Chemical Contaminants																		
				DGAV						ASAE			INIAV			IPMA			INSA			
				CAA		PNFR																
				Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	
A.01	Local organisation identification code		R	Constant			Constant			LIMS	Cliente	yes	LIMS	Cliente	no	Constant			Constant			
A.02	Local organisation country	COUNTRY	R	Constant			Constant			Constant			Constant			Constant			Constant			
A.03	Local organisation additional information		O																			
B.01	Sampling programme identification code		R	Excel	Âmbito	no	Excel	Âmbito	no	LIMS	Controlo		LIMS	Protocolo		Excel	Plano	yes	Constant			
B.02	Programme legal reference	LEGREF	M/R (To specify which case)	Constant			Excel															
B.03	Sampling strategy	SAMPSTR	M	Constant			Constant			Constant			Constant			Constant			Constant			
B.04	Programme type	PRGTYP	M	Constant			Constant			Constant			Constant			Constant			Constant			
B.05	Sampling method	SAMPMD	M	Constant			Constant			Constant			Constant			Constant			Constant			
B.06	Sampler	SAMPLR	M	Excel	Entidade Colheita																	
B.07	Sampling point	SAMPNT	M	Excel	Ponto de Colheita		Excel	FaseCadeia	no	EXCEL	Ponto de colheita		Data received from the Sampler			Data received from the Sampler			LIMS	S39_Ponto da cadeia da amostragem	no	
B.08	Additional sampling program information		O																			
C.01	Sampling event identification code		O																			
C.02	Sampling unit type	SAMPUNTY	O																			
C.03	Sampling unit size		R																			
C.04	Sampling unit size unit	UNIT	O																			
C.05	Other sampling unit identifications		O																			
C.06	Additional sampling event information		O																			

Table 8: Chemical Contaminants sections D

Element Code	Element Label	Controlled terminology	M	Chemical Contaminants																	
				DGAV						ASAE			INIAV			IPMA			INSA		
				CAA			PNPR			Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
				Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology												
D.01	Sample taken identification code		M	Code generate by the system			Code generate by the system			Code generate by the system			Code generate by the system			Code generate by the system			Code generate by the system		
D.02	Reporting country	COUNTRY	M	Constant			Constant			Constant			Constant			Constant			Constant		
D.03	Country of sampling	COUNTRY	M	Constant			Constant			Constant			Constant			Constant			Constant		
D.04	Area of sampling	NUTS	R	Excel	Entidade Colheita		Excel	DAV		Excel	Localização do estabelecimento de colheita										
D.05	Reporting year		M	Constant			Constant			Constant			Constant			Constant			Constant		
D.06	Year of sampling		M	Excel	Colheita	no	Excel	DataColheita	no	Excel	Data de Colheita	no	Data received from the Sampler			Excel			LIMS	S28_S29_S30_Amostragem	no
D.07	Month of sampling		M (for acrylamida)	Excel	Colheita	no	Excel	DataColheita	no	Excel	Data de Colheita	no	Data received from the Sampler			Excel			LIMS	S28_S29_S30_Amostragem	no
D.08	Day of sampling		O	Excel	Colheita		Excel	DataColheita	no	Excel	Data de Colheita	no	Data received from the Sampler			Excel			LIMS	S28_S29_S30_Amostragem	no
D.09	Sample taken size		R																		
D.10	Sample taken size unit	UNIT	O																		
D.11	Additional Sample taken information		O	Excel			Excel			Excel											

Table 9: Chemical Contaminants sections E to F

Element Code	Element Label	Controlled terminology	M	Chemical Contaminants																		
				DGAV						ASAE			INIAV			IPMA			INSA			
				CAA		PNPR		Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
E.01	Type of matrix	MTXTYP	M	Excel			Excel															
E.02	Coded description of the matrix of the sample taken	MTX	M	Excel	Amostra		Excel	TipoProdutoNivel1,2,3,4			Excel	Grupo de Géneros Alimentícios		Data received from the Sampler			Excel			LIMS		
E.03	Text description of the matrix of the sample taken		O	Excel	Amostra	no	Excel	TipoProdutoNivel1,2,3,4			Excel	Grupo de Géneros Alimentícios		Data received from the Sampler			Excel					
E.04	Country of origin of the sample taken	COUNTRY	M	Excel			Excel	País de Origem			Excel	Origem					Excel					
E.05	Area of origin of the sample taken	NUTS	O								Excel	Origem					Excel					
E.06	Area of origin for fisheries or aquaculture activities code of the sample taken	FAREA	R for Brominated Flame Retardants (BFRs)								Excel	Origem					Excel					
E.07	Area of origin for fisheries or aquaculture activities text of the sample taken		R								Excel	Origem										
E.08	Country of processing of the sample taken	COUNTRY	O	Excel			Excel				Excel						Excel					
E.09	Area of processing of the sample taken	NUTS	O																			
E.10	Additional information on the matrix sampled		M/R								Excel	Designação/ Marca							LIMS	OBSERVACOES	no	
F.01	Sample analysed identification code		M	Data received from the Lab			Data received from the Lab			LIMS	Nr. Amostra	no	LIMS	Amostra nº	no	Excel	Ref (número)	no				
F.02	Sample analysis reference time	REFTM	O																			
F.03	Year of analysis		M	Excel	Conclusão	no	Data received from the Lab			LIMS	Data de Emissão Boletim		LIMS	Data de conclusão		Excel	Data do resultado	no	LIMS	R02_R03_R04		
F.04	Month of analysis		O	Excel	Conclusão	no	Data received from the Lab			LIMS	Data de Emissão Boletim		LIMS	Data de conclusão		Excel	Data do resultado	no	LIMS	R02_R03_R04		
F.05	Day of analysis		O	Excel	Conclusão	no	Data received from the Lab			LIMS	Data de Emissão Boletim		LIMS	Data de conclusão		Excel	Data do resultado	no	LIMS	R02_R03_R04		
F.06	Additional information on the sample analysed		O								Excel	Validade										

Table 10: Chemical Contaminants sections G to J

Element Code	Element Label	Controlled terminology	M	Chemical Contaminants																	
				DGAV						ASAE			INIAV			IPMA			INSA		
				CAA			PNPR			Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
				Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology												
G.01	Coded description of the analysed matrix	MTX	M	Excel	Amostra		Excel	TipoProdutoNivel1		LIMS			LIMS			Excel			LIMS		yes
G.02	Text description of the matrix analysed		M	Excel	Amostra		Excel			LIMS	Desc. Amostra		LIMS	Matriz		Excel	Produto	no	LIMS	S14	no
G.03	Additional information on the analysed matrix		O																		
H.01	Sample analysed portion sequence		R	Excel			Excel			LIMS			LIMS			Excel			LIMS		
H.02	Sample analysed portion size		O																		
H.03	Sample analysed portion size unit	UNIT	O																		
H.04	Additional information on the sample analysed portion		O																		
I.01	Isolate identification		NA																		
I.02	Coded description of the isolate	PARAM	NA																		
I.03	Text description of the isolate		NA																		
I.04	Additional information on the isolate		NA																		
J.01	Laboratory identification code		R	Constant			Excel	Laboratorio	yes	LIMS	Unidade Laboratorial		Constant			Constant			Constant		
J.02	Laboratory accreditation	LABACC	M	Excel				Data from lab		LIMS	Acreditado		Constant			Constant			Constant		
J.03	Laboratory country	COUNTRY	O	Excel				Data from lab		Constant			Constant			Constant			Constant		
J.04	Additional information on the laboratory		O																		

Table 11: Chemical Contaminants sections K to M

Element Code	Element Label	Controlled terminology	M	Chemical Contaminants																		
				DGAV						ASAE			INIAV			IPMA			INSA			
				CAA			PNFR			Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	
				Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology													
K.01	Type of parameter	PARAMTYP	M	Data received from the Lab			Data received from the Lab			LIMS			LIMS			Excel			LIMS			
K.02	Coded description of the parameter	PARAM	M	Data received from the Lab			Data received from the Lab			LIMS	Parâmetro	yes	LIMS	Ensaio requeridos		Excel	Parâmetro		LIMS			
K.03	Parameter text		D	Data received from the Lab			Data received from the Lab			LIMS	Parâmetro	yes	LIMS	Observações		Excel			LIMS	R07		
L.01	Analytical method identification		M	Data received from the Lab			Data received from the Lab			LIMS	Método	yes				Excel			LIMS			
L.02	Analytical method reference code	ANLYREFMD	R	Data received from the Lab			Data received from the Lab			LIMS						Excel			LIMS			
L.03	Analytical method type	ANLYTYP	R	Data received from the Lab			Data received from the Lab			LIMS						Excel			LIMS			
L.04	Analytical method code	ANLYMD	M	Data received from the Lab			Data received from the Lab			LIMS	Método	yes	LIMS			Excel			LIMS			
L.05	Analytical method text		M	Data received from the Lab			Data received from the Lab			LIMS				LIMS	Ensaio requeridos		Excel			LIMS	METODEXT	
L.06	Additional information on the analytical method		O																			
M.01	Result identification code		M	Code generate by the system			Code generate by the system			Code generate by the system			Code generate by the system			Code generate by the system			Code generate by the system			
M.02	Accreditation procedure for the analytical method	MDACC	R	Data received from the Lab			Data received from the Lab			LIMS	Parâmetro Acred.	yes	Excel	Ensaio acreditado (Sim/Não)		Excel			LIMS			
M.03	Result unit	UNIT	M	Data received from the Lab			Data received from the Lab			LIMS	Unidades	yes	Excel	Expressão resultados (unidades)		Excel			LIMS	R13	yes	
M.04	Result LOD		D	Data received from the Lab			Data received from the Lab			LIMS	LOD					Excel			Constant			
M.05	Result LOQ		M	Data received from the Lab			Data received from the Lab			LIMS	LOQ					Excel			Constant			
M.06	Result lower limit of the working range		O																			
M.07	Result upper limit of the working range		O																			

Table 12: Chemical Contaminants sections M to N

Element Code	Element Label	Controlled terminology	M	Chemical Contaminants																							
				DGAV						ASAE			INIAV			IPMA			INSA								
				CAA		PNPR				Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology			
M.08	CC alpha		O																								
M.09	CC beta		O																								
M.10	Result value		D	Data received from the Lab			Data received from the Lab			LIMS	Resultado Analítico		LIMS	Resultado		Excel				LIMS	R18						
M.11	Result value recovery rate		R								LIMS	Recuperação		Excel	Recuperação %		Excel	Recuperação %									
M.12	Result value corrected for recovery	YESNO	R	Data received from the Lab			Data received from the Lab						Excel	Resultado corrigido para a recuperação (Sim/Não)	Insa_Informação complementar INIAV_PNPR_2018	Excel	Recuperação		LIMS								
M.13	Expression of result percentage		M	Data received from the Lab			Data received from the Lab			LIMS			LIMS			Excel			LIMS								
M.14	Expression of result type	EXPRRES	M	Data received from the Lab			Data received from the Lab			LIMS	Resultados expressos em:		LIMS			Excel			LIMS								
M.15	Result qualitative value	POSNEG	O	Data received from the Lab			Data received from the Lab			LIMS	Resultado Analítico		LIMS			Excel			LIMS								
M.16	Type of result	VALTYP	M	Data received from the Lab			Data received from the Lab			LIMS			LIMS			Excel			LIMS								
M.17	Result value uncertainty		R	Data received from the Lab			Data received from the Lab			LIMS			Excel	Incerteza %		Excel			LIMS								
M.18	Result value uncertainty Standard deviation		O	Data received from the Lab			Data received from the Lab			LIMS			LIMS			Excel			LIMS								
M.19	Result reference identification		O																								
M.20	Additional information on the result		R								Excel	Apreciação Técnica							LIMS	OBSERVACOES							
N.01	Limit for the result evaluation		O																								
N.02	Limit for the result evaluation (High limit)		O																	LIMS	APRECIACOES_RELATORIO						
N.03	Type of limit for the result evaluation	LMTTYP	O																								
N.04	Evaluation of the result	RESEVAL	O	Excel	Conformidade						Excel	Apreciação Técnica															
N.05	Action Taken	ACTION	O								Excel	Medidas Tomadas															
N.06	Additional information on the evaluation		O																								

Table 13: Food Additives sections A to C

Element Code	Element Label	Controlled terminology	M	Food Additives					
				ASAE			INSA		
				Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
A.01	Local organisation identification code		R	LIMS	Cliente	yes	Constant		
A.02	Local organisation country	COUNTRY	R	Constant			Constant		
A.03	Local organisation additional information		O						
B.01	Sampling programme identification code		R	LIMS	Controlo		Constant		
B.02	Programme legal reference	LEGREF	M/R (To specify which case)						
B.03	Sampling strategy	SAMPSTR	M	Constant			Constant		
B.04	Programme type	PRGTYP	M	Constant			Constant		
B.05	Sampling method	SAMPMD	M	Constant			Constant		
B.06	Sampler	SAMPLR	M						
B.07	Sampling point	SAMPNT	M	EXCEL	Ponto de colheita		LIMS	S39_Ponto da cadeia da amostragem	no
B.08	Additional sampling program information		O						
C.01	Sampling event identification code		O						
C.02	Sampling unit type	SAMPUNTY	O						
C.03	Sampling unit size		R						
C.04	Sampling unit size unit	UNIT	O						
C.05	Other sampling unit identifications		O						
C.06	Additional sampling event information		O						

Table 14: Food Additives section D

<i>Element Code</i>	<i>Element Label</i>	<i>Controlled terminology</i>	<i>M</i>	<i>Food Additives</i>					
				<i>ASAE</i>			<i>INSA</i>		
				<i>Received as</i>	<i>Element label</i>	<i>Controlled terminology</i>	<i>Received as</i>	<i>Element label</i>	<i>Controlled terminology</i>
D.01	Sample taken identification code		M	Code generate by the system			Code generate by the system		
D.02	Reporting country	COUNTRY	M	Constant			Constant		
D.03	Country of sampling	COUNTRY	M	Constant			Constant		
D.04	Area of sampling	NUTS	R	Excel	Localização do estabelecimento de colheita				
D.05	Reporting year		M	Constant			Constant		
D.06	Year of sampling		M	Excel	Data de Colheita	no	LIMS	S28_S29_S30_Amostragem	no
D.07	Month of sampling		M (for acrylamida)	Excel	Data de Colheita	no	LIMS	S28_S29_S30_Amostragem	no
D.08	Day of sampling		O	Excel	Data de Colheita	no	LIMS	S28_S29_S30_Amostragem	no
D.09	Sample taken size		R						
D.10	Sample taken size unit	UNIT	O						
D.11	Additional Sample taken information		O	Excel					

Table 15: Food Additives section E

Element Code	Element Label	Controlled terminology	M	Food Additives					
				ASAE			INSA		
				Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
E.01	Type of matrix	MTXTYP	M	Excel			LIMS		
E.02	Coded description of the matrix of the sample taken	MTX	M	Excel	Grupo de Géneros Alimentícios		LIMS		
E.03	Text description of the matrix of the sample taken		O	Excel	Grupo de Géneros Alimentícios				
E.04	Country of origin of the sample taken	COUNTRY	M	Excel	Origem				
E.05	Area of origin of the sample taken	NUTS	O	Excel	Origem				
E.06	Area of origin for fisheries or aquaculture activities code of the sample taken	FAREA	R for Brominated Flame Retardants (BFRs)	Excel	Origem				
E.07	Area of origin for fisheries or aquaculture activities text of the sample taken		R	Excel	Origem				
E.08	Country of processing of the sample taken	COUNTRY	O	Excel					
E.09	Area of processing of the sample taken	NUTS	O						
E.10	Additional information on the matrix sampled		M/R	Excel	Designação/Marca		LIMS	OBSERVACOES	no

Table 16: Food Additives sections F to H

Element Code	Element Label	Controlled terminology	M	Food Additives					
				ASAE			INSA		
				Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
F.01	Sample analysed identification code		M	LIMS	Nr. Amostra	no			
F.02	Sample analysis reference time	REFTM	O						
F.03	Year of analysis		M	LIMS	Data de Emissão Boletim		LIMS	R02_R03_R04	
F.04	Month of analysis		O	LIMS	Data de Emissão Boletim		LIMS	R02_R03_R04	
F.05	Day of analysis		O	LIMS	Data de Emissão Boletim		LIMS	R02_R03_R04	
F.06	Additional information on the sample analysed		O	Excel	Validade				
G.01	Coded description of the analysed matrix	MTX	M	LIMS			LIMS		yes
G.02	Text description of the matrix analysed		M	LIMS	Desc. Amostra		LIMS	S14	no
G.03	Additional information on the analysed matrix		O						
H.01	Sample analysed portion sequence		R	LIMS			LIMS		
H.02	Sample analysed portion size		O						
H.03	Sample analysed portion size unit	UNIT	O						
H.04	Additional information on the sample analysed portion		O						

Table 17: Food Additives sections I to L

Element Code	Element Label	Controlled terminology	M	Food Additives					
				ASAE			INSA		
				Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
I.01	Isolate identification		NA						
I.02	Coded description of the isolate	PARAM	NA						
I.03	Text description of the isolate		NA						
I.04	Additional information on the isolate		NA						
J.01	Laboratory identification code		R	LIMS	Unidade Laboratorial		Constant		
J.02	Laboratory accreditation	LABACC	M	LIMS	Acreditado		Constant		
J.03	Laboratory country	COUNTRY	O	Constant			Constant		
J.04	Additional information on the laboratory		O						
K.01	Type of parameter	PARAMTYP	M	LIMS			LIMS		
K.02	Coded description of the parameter	PARAM	M	LIMS	Parâmetro	yes	LIMS		
K.03	Parameter text		D	LIMS	Parâmetro	yes	LIMS	R07	
L.01	Analytical method identification		M	LIMS	Método	yes	LIMS		
L.02	Analytical method reference code	ANLYREFMD	R	LIMS			LIMS		
L.03	Analytical method type	ANLYTYP	R	LIMS			LIMS		
L.04	Analytical method code	ANLYMD	M	LIMS	Método	yes	LIMS		
L.05	Analytical method text		M	LIMS			LIMS	METODEXT	
L.06	Additional information on the analytical method		O						

Table 18: Food Additives section M

Element Code	Element Label	Controlled terminology	M	Food Additives					
				ASAE			INSA		
				Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
M.01	Result identification code		M	Code generate by the system			Code generate by the system		
M.02	Accreditation procedure for the analytical method	MDACC	R	LIMS	Parâmetro Acred.	yes	LIMS		
M.03	Result unit	UNIT	M	LIMS	Unidades	yes	LIMS	R13	yes
M.04	Result LOD		D	LIMS	LOD		Constant		
M.05	Result LOQ		M	LIMS	LOQ		Constant		
M.06	Result lower limit of the working range		O						
M.07	Result upper limit of the working range		O						
M.08	CC alpha		O						
M.09	CC beta		O						
M.10	Result value		D	LIMS	Resultado Analítico		LIMS	R18	
M.11	Result value recovery rate		R	LIMS	Recuperação				
M.12	Result value corrected for recovery	YESNO	R				LIMS		
M.13	Expression of result percentage		M	LIMS			LIMS		
M.14	Expression of result type	EXPRRES	M	LIMS	Resultados expressos em:		LIMS		
M.15	Result qualitative value	POSNEG	O	LIMS	Resultado Analítico		LIMS		

Table 19: Food Additives sections M to N

Element Code	Element Label	Controlled terminology	M	Food Additives					
				ASAE			INSA		
				Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
M.16	Type of result	VALTYP	M	LIMS			LIMS		
M.17	Result value uncertainty		R	LIMS			LIMS		
M.18	Result value uncertainty Standard deviation		O	LIMS			LIMS		
M.19	Result reference identification		O						
M.20	Additional information on the result		R	Excel	Apreciação Técnica		LIMS	OBSERVACOES	
N.01	Limit for the result evaluation		O						
N.02	Limit for the result evaluation (High limit)		O				LIMS	APRECIACOES_RELATORIO	
N.03	Type of limit for the result evaluation	LMTTYP	O						
N.04	Evaluation of the result	RESEVAL	O	Excel	Apreciação Técnica				
N.05	Action Taken	ACTION	O	Excel	Medidas Tomadas				
N.06	Additional information on the evaluation		O						

Table 20: Pesticides Residues sections A to B

Element Code	Element Label	Controlled terminology		Pesticides Residues											
				DGAV			INIAV			LRVSA			LRSV		
				PNPR			PNPR			PNPR			PNPR		
				Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
A.01	Local organisation identification code			Constant			LIMS	Cliente	no	Constant			Constant		
A.02	Local organisation country	COUNTRY		Constant			Constant			Constant			Constant		
A.03	Local organisation additional information														
B.01	Sampling programme identification code			Excel	Âmbito	no	LIMS	Protocolo		Excel			Excel		
B.02	Programme legal reference	LEGREF	M/R - depending on the requirements	Excel						Excel			Excel		
B.03	Sampling strategy	SAMPSTR	M - conditioned by the requirements	Constant			Constant			Constant			Constant		
B.04	Programme type	PRGTYP	M	Constant			Constant			Constant			Constant		
B.05	Sampling method	SAMPMD	M	Constant			Constant			Constant			Constant		
B.06	Sampler	SAMPLR	O												
B.07	Sampling point	SAMPNT	M	Excel	FaseCadeia	no	Data received from the Sampler			Excel			Excel		
B.08	Additional sampling program information		O												

Table 21: Pesticides Residues sections C to D

Element Code	Element Label	Controlled terminology		Pesticides Residues											
				DGAV			INIAV			LRVSA			LRSV		
				PNPR			PNPR			PNPR			PNPR		
				Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
C.01	Sampling event identification code		O												
C.02	Sampling unit type	SAMPUNTYP	O												
C.03	Sampling unit size		O												
C.04	Sampling unit size unit	UNIT													
C.05	Other sampling unit identifications														
C.06	Additional sampling event information		O												
D.01	Sample taken identification code		M	Code generate by the system			Code generate by the system			Code generate by the system			Code generate by the system		
D.02	Reporting country	COUNTRY	M	Constant			Constant			Constant			Constant		
D.03	Country of sampling	COUNTRY	M	Constant			Constant			Constant			Constant		
D.04	Area of sampling	NUTS		Excel						Excel			Excel		
D.05	Reporting year		M	Constant			Constant			Constant			Constant		
D.06	Year of sampling		M	Excel	DataColheita	no	Data received from the Sampler			Excel			Excel		
D.07	Month of sampling		O	Excel	DataColheita	no	Data received from the Sampler			Excel			Excel		
D.08	Day of sampling		O	Excel	DataColheita	no	Data received from the Sampler			Excel			Excel		
D.09	Sample taken size		O							Excel			Excel		
D.10	Sample taken size unit	UNIT	O							Excel			Excel		
D.11	Additional Sample taken information		O	Excel						Excel			Excel		

Table 22: Pesticides Residues sections E

Element Code	Element Label	Controlled terminology		Pesticides Residues											
				DGAV			INIAV			LRVSA			LRSV		
				PNPR			PNPR			PNPR			PNPR		
				Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
E.01	Type of matrix	MTXTYP	M	Excel			Data received from the Sampler			Excel			Excel		
E.02	Coded description of the matrix of the sample taken	MTX	M	Excel			Data received from the Sampler			Excel			Excel		
E.03	Text description of the matrix of the sample taken		M	Excel	TipoProduto	yes	Data received from the Sampler			Excel			Excel		
E.04	Country of origin of the sample taken	COUNTRY	O	Excel	País de Origem	yes				Excel			Excel		
E.05	Area of origin of the sample taken	NUTS	O												
E.06	Area of origin for fisheries or aquaculture activities code of the sample taken	FAREA	O												
E.07	Area of origin for fisheries or aquaculture activities text of the sample taken		O												
E.08	Country of processing of the sample taken	COUNTRY	O	Excel						Excel			Excel		
E.09	Area of processing of the sample taken	NUTS													
E.10	Additional information on the matrix sampled														

Table 23: Pesticides Residues sections F to H

Element Code	Element Label	Controlled terminology		Pesticides Residues											
				DGAV			INIAV			LRVSA			LRSV		
				PNPR			PNPR			PNPR			PNPR		
				Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
F.01	Sample analysed identification code		O				LIMS	Amostra nº	yes						
F.02	Sample analysis reference time	REFTM	O												
F.03	Year of analysis		M	Data received from the Lab			LIMS	Data de conclusão	yes	Excel			Excel		
F.04	Month of analysis			Data received from the Lab			LIMS	Data de conclusão	yes	Excel			Excel		
F.05	Day of analysis		O	Data received from the Lab			LIMS	Data de conclusão	yes	Excel			Excel		
F.06	Additional information on the sample analysed		O												
G.01	Coded description of the analysed matrix	MTX	M	Excel	TipoProduto	yes	LIMS	Matriz	yes	Excel			Excel		
G.02	Text description of the matrix analysed			Excel	TipoProduto	yes	LIMS	Matriz	yes						
G.03	Additional information on the analysed matrix		O												
H.01	Sample analysed portion sequence			Excel			LIMS								
H.02	Sample analysed portion size														
H.03	Sample analysed portion size unit	UNIT													
H.04	Additional information on the sample analysed portion														

Table 24: Pesticides Residues sections I to K

Element Code	Element Label	Controlled terminology		Pesticides Residues											
				DGAV			INIAV			LRVSA			LRSV		
				PNPR			PNPR			PNPR			PNPR		
				Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
I.01	Isolate identification		NA												
I.02	Coded description of the isolate	PARAM	NA												
I.03	Text description of the isolate		NA												
I.04	Additional information on the isolate		NA												
J.01	Laboratory identification code		M	Excel	Laboratorio	yes	Constant				Constant			Constant	
J.02	Laboratory accreditation	LABACC	M	Constant			Constant				Constant			Constant	
J.03	Laboratory country	COUNTRY		Constant			Constant				Constant			Constant	
J.04	Additional information on the laboratory														
K.01	Type of parameter	PARAMTYP	M	Data received from the Lab			LIMS				Excel			Excel	
K.02	Coded description of the parameter	PARAM	M	Data received from the Lab			LIMS				Excel			Excel	
K.03	Parameter text			Data received from the Lab			LIMS	Observações	yes						

Table 25: Pesticides Residues sections L to M

Element Code	Element Label	Controlled terminology		Pesticides Residues											
				DGAV			INIAV			LRVSA			LRSV		
				PNPR			PNPR			PNPR			PNPR		
				Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
L.01	Analytical method identification		R	Data received from the Lab											
L.02	Analytical method reference code	ANLYREFMD		Data received from the Lab			LIMS			Excel		Excel			
L.03	Analytical method type	ANLYTYP	O	Data received from the Lab			LIMS			Excel		Excel			
L.04	Analytical method code	ANLYMD	M	Data received from the Lab			LIMS	Ensaio requeridos		Excel		Excel			
L.05	Analytical method text			Data received from the Lab			LIMS	Ensaio requeridos	yes	Excel		Excel			
L.06	Additional information on the analytical method														
M.01	Result identification code		M	Code generate by the system			Code generate by the system			Code generate by the system			Code generate by the system		
M.02	Accreditation procedure for the analytical method	MDACC		Constant			Excel	Ensaio acreditado (Sim/Não)		Excel		Excel			
M.03	Result unit	UNIT	M	Data received from the Lab			LIMS	Expressão resultados (unidades)	yes	Excel		Excel			
M.04	Result LOD		O	Data received from the Lab			Constant	Limite deteção (LOD)		Constant		Constant			
M.05	Result LOQ		M	Data received from the Lab			Constant	Limite quantificação (LOQ)		Constant		Constant			
M.06	Result lower limit of the working range														
M.07	Result upper limit of the working range														

Table 26: Pesticides Residues sections M

Element Code	Element Label	Controlled terminology	Pesticides Residues											
			DGAV			INIAV			LRVSA			LRSV		
			PNPR			PNPR			PNPR			PNPR		
			Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
M.08	CC alpha													
M.09	CC beta													
M.10	Result value		M	Data received from the Lab			LIMS	Resultado		Excel		Excel		
M.11	Result value recovery rate						LIMS	Recuperação %						
M.12	Result value corrected for recovery	YESNO		Data received from the Lab			LIMS	Resultado corrigido para a recuperação (Sim/Não)		Excel		Excel		
M.13	Expression of result percentage			Data received from the Lab			LIMS							
M.14	Expression of result type	EXPRES	O	Data received from the Lab			LIMS			Excel		Excel		
M.15	Result qualitative value	POSNEG	O				LIMS							
M.16	Type of result	VALTYP	M	Data received from the Lab			LIMS							
M.17	Result value uncertainty			Data received from the Lab			LIMS	Incerteza %		Excel		Excel		
M.18	Result value uncertainty Standard deviation		O	Data received from the Lab			LIMS			Excel		Excel		
M.19	Result reference identification													
M.20	Additional information on the result													

Table 27: Pesticides Residues sections N

Element Code	Element Label	Controlled terminology		Pesticides Residues										
				DGAV			INIAV			LRVSA			LRSV	
				PNPR			PNPR			PNPR			PNPR	
				Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label
N.01	Limit for the result evaluation													
N.02	Limit for the result evaluation (High limit)		0											
N.03	Type of limit for the result evaluation	LMTTYP	0											
N.04	Evaluation of the result	RESEVAL	M	Excel						Excel			Excel	
N.05	Action Taken	ACTION												
N.06	Additional information on the evaluation		0											

Table 28: Biological Monitoring sections A to B

Element Code	Element Label	Controlled terminology	Mandatory AMR	Mandatory PRV	Biological Monitoring																				
					DGAV									ASAE			INIAV			IPMA			INSA		
					CAA			PIGA			PNC5			Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
					Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology												
A.01	Local organisation identification				Constant			Constant			Constant			LIMS	Cliente		LIMS	Cliente		Constant			Constant		
A.02	Local organisation country	COUNTRY			Constant			Constant			Constant			Constant			Constant			Constant			Constant		
A.03	Local organisation additional																								
B.01	Sampling programme identification code		M		Excel	Âmbito	no	Excel	Âmbito	n	Excel			LIMS	Controlo		LIMS	Protocolo		Excel	Plano		Constant		
B.02	Programme legal reference	LEGREF			Constant			Excel			Excel														
B.03	Sampling strategy	SAMPSTR	M	M	Constant			Constant			Constant			Constant			Data received from the Sampler			Data received from the Sampler			Constant		
B.04	Programme type	PRGTYP	M	M	Constant			Constant			Constant	Tipo de programa		Constant			Data received from the Sampler			Data received from the Sampler			Constant		
B.05	Sampling method	SAMPMD	M	M	Constant	??		Constant			Constant			Constant			Data received from the Sampler			Data received from the Sampler			Constant		
B.06	Sampler	SAMPLR	M	M	Excel	Entidade Colheita		Constant			Excel			EXCEL			Data received from the Sampler			Data received from the Sampler					
B.07	Sampling point	SAMPNT	M	M	Excel	Ponto de Colheita		Excel	FaseCadeia		Excel			EXCEL	Ponto de colheita		Data received from the Sampler			Data received from the Sampler			LIMS	S39_Ponto da cadeia da amostragem	no
B.08	Additional sampling program																								

Table 30: Biological Monitoring sections D to E

Element Code	Element Label	Controlled terminology	Mandator y AMR	Mandato ry PRV	Biological Monitoring																				
					DGAV									ASAE			INIAV			IPMA			INSA		
					CAA			PIGA			PNCS			Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
					Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology												
D.06	Year of sampling		M	M	Excel	Colheita		Excel	DataColheita		Excel	Data da colheita oficial		Excel	Data de Colheita		Data received from the Sampler	Data received from the Sampler	LIMS	\$28_29_30_A mostragem					
D.07	Month of sampling		M		Excel	Colheita		Excel	DataColheita		Excel	Data da colheita oficial		Excel	Data de Colheita		Data received from the Sampler	Data received from the Sampler	LIMS	\$28_29_30_A mostragem					
D.08	Day of sampling		M		Excel	Colheita		Excel	DataColheita		Excel	Data da colheita oficial		Excel	Data de Colheita		Data received from the Sampler	Data received from the Sampler	LIMS	\$28_29_30_A mostragem					
D.09	Sample taken size																								
D.10	Sample taken size unit	UNIT																							
D.11	Additional Sample taken information				Excel			Excel			Excel			Excel											
E.01	Type of matrix	MTXTYP	M	M	Excel	Amostra		Excel	TipoProduto Nivel1		Excel			Excel	Grupo de Géneros Alimentícios		Data received from the Sampler	Data received from the Sampler	LIMS						
E.02	Coded description of the matrix of the sample taken	MTX	M	M	Excel	Amostra		Excel	TipoProduto Nivel1,2,3,4		Excel	Tipo de amostra		Excel	Grupo de Géneros Alimentícios		Data received from the Sampler	Data received from the Sampler	LIMS						
E.03	Text description of the matrix of the sample taken		R	R	Excel	Amostra		Excel	TipoProduto Nivel1,2,3,4		Excel			Excel	Grupo de Géneros Alimentícios		LIMS		Excel		LIMS				
E.04	Country of origin of the sample taken	COUNTRY	M	M	Excel			Excel			Excel			Excel	Origem	yes			Excel	Origem	no				
E.05	Area of origin of the sample taken	NUTS												Excel	Origem	yes									

Table 31: Biological Monitoring sections E to F

Element Code	Element Label	Controlled terminology	Mandator y AMR	Mandato ry PRV	Biological Monitoring																				
					DGAV									ASAE			INIAV			IPMA			INSA		
					CAA			PIGA			PNCS			Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
					Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology												
E.06	Area of origin for fisheries or aquaculture	FAREA												Excel	Origem	yes				Excel	Origem				
E.07	Area of origin for fisheries or aquaculture activities text of													Excel	Origem	yes				Excel	Origem				
E.08	Country of processing of the sample taken	COUNTRY			Excel			Excel			Excel			Excel											
E.09	Area of processing of the sample taken	NUTS																							
E.10	Additional information on the matrix												Excel	Designaçã o/Marca	no							LIMS	OBSERVACOE S	no	
F.01	Sample analysed identification code									Excel	Nº análise Lab/Referên cia amostras		LIMS	Nr. Amostra	no	LIMS	Amostra nº	no							
F.02	Sample analysis reference time	REFTM																							
F.03	Year of analysis		M	M	Excel	Conclusão	no	Data received from the Lab	Excel	Data de receção	no	LIMS	Data de Emissão Boletim	no	LIMS	Data de conclusão	no	Excel	Data do resultado	no	LIMS	DTFIMANALIS ES	no		
F.04	Month of analysis		M		Excel	Conclusão	no	Data received from the Lab	Excel	Data de receção	no	LIMS	Data de Emissão Boletim	no	LIMS	Data de conclusão	no	Excel	Data do resultado	no	LIMS	DTFIMANALIS ES	no		
F.05	Day of analysis		M		Excel	Conclusão	no	Data received from the Lab	Excel	Data de receção	no	LIMS	Data de Emissão Boletim	no	LIMS	Data de conclusão	no	Excel	Data do resultado	no	LIMS	DTFIMANALIS ES	no		
F.06	Additional information on the sample analysed												Excel	Validade											

Table 32: Biological Monitoring sections G to H

Element Code	Element Label	Controlled terminology	Mandator y AMR	Mandator y PRV	Biological Monitoring																				
					DGAV									ASAE			INIAV			IPMA			INSA		
					CAA			PIGA			PNCS			Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
					Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology												
G.01	Coded description of the analysed matrix	MTX	M	M	Excel	Amostra		Excel	TipoProduto		Excel			LIMS	Desc. Amostra		LIMS	Matriz		Excel	Produto	no	LIMS		
G.02	Text description of the matrix analysed		R	R	Excel	Amostra		Excel	TipoProduto	yes				LIMS	Desc. Amostra	yes	LIMS	Matriz	yes	Excel	Produto	no	LIMS	AMOSDESC	no
G.03	Additional information on the analysed matrix																								
H.01	Sample analysed portion sequence				Excel			Excel			Excel			LIMS	Tipo de Amostra Número de exemplares da amostra (Única, dupl, etc.)	yes	LIMS			Excel			LIMS		
H.02	Sample analysed portion size			0																					
H.03	Sample analysed portion size unit	UNIT		0																					
H.04	Additional information on the sample analysed portion																								

Table 34: Biological Monitoring sections L to M

Element Code	Element Label	Controlled terminology	Mandator y AMR	Mandator y PRV	Biological Monitoring																				
					DGAV									ASAE			INIAV			IPMA			INSA		
					CAA			PIGA			PNCS			Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
					Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology												
L.01	Analytical method identification				Data received from the Lab			Data received from the Lab			Data received from the Lab			LIMS	Método	yes	LIMS	Método análise		Excel			LIMS		
L.02	Analytical method reference code	ANLYREFMD			Data received from the Lab			Data received from the Lab			Data received from the Lab			LIMS			LIMS			Excel			LIMS		
L.03	Analytical method type	ANLYTYP			Data received from the Lab			Data received from the Lab			Data received from the Lab			LIMS			LIMS			Excel			LIMS		
L.04	Analytical method code	ANLYMD	M	M	Data received from the Lab			Data received from the Lab			Data received from the Lab			LIMS	Método	yes	LIMS	Descrição do ensaio		Excel	Método análise	no	LIMS		
L.05	Analytical method text				Data received from the Lab			Data received from the Lab			Data received from the Lab			LIMS			LIMS	Descrição do ensaio		Excel	Método análise	no	LIMS	METODEXT	
L.06	Additional information on the analytical method		O																						
M.01	Result identification code		M	M	Code generate by the system			Code generate by the system			Code generate by the system			Code generate by the system			Code generate by the system			Code generate by the system			Code generate by the system		
M.02	Accreditation procedure for the analytical method	MDACC			Data received from the Lab			Data received from the Lab			Data received from the Lab			LIMS	Acreditado	yes	LIMS	Ensaio acreditado (Sim/Não)	yes	Excel	Ensaio acreditado (Sim/Não)		LIMS		
M.03	Result unit	UNIT			Data received from the Lab			Data received from the Lab			Data received from the Lab			LIMS	Unidade	yes	LIMS	Expressão resultados (unidades)	yes	Excel	Expressão resultados (unidades)	no	LIMS		yes

Table 35: Biological Monitoring sections M

Element Code	Element Label	Controlled terminology	Mandator y AMR	Mandato ry PRV	Biological Monitoring																				
					DGAV									ASAE			INIAV			IPMA			INSA		
					CAA			PIGA			PNCS			Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
					Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology												
M.04	Result LOD				Data received from the Lab			Data received from the Lab			Data received from the Lab			LIMS	Limite deteção		LIMS	Limite deteção	no	Excel	Limite deteção		LIMS		
M.05	Result LOQ				Data received from the Lab			Data received from the Lab			Data received from the Lab			LIMS			Constant			Constant			LIMS		
M.06	Result lower limit of the working range		M		Data received from the Lab			Data received from the Lab			Data received from the Lab			LIMS			LIMS	Limite deteção		Excel			LIMS		
M.07	Result upper limit of the working range		M		Data received from the Lab			Data received from the Lab			Data received from the Lab			LIMS			LIMS	Limite deteção		Excel			LIMS		
M.08	CC alpha																								
M.09	CC beta																								
M.10	Result value		M	M	Data received from the Lab			Data received from the Lab			Data received from the Lab			LIMS	Resultado		LIMS	Resultado		Excel			LIMS	RESULTADO TRATADO	
M.11	Result value recovery rate																								
M.12	Result value corrected for recovery	YESNO			Data received from the Lab			Data received from the Lab			Data received from the Lab			LIMS						Excel			LIMS		
M.13	Expression of result percentage				Data received from the Lab			Data received from the Lab			Data received from the Lab			LIMS						Excel			LIMS		
M.14	Expression of result type	EXPRES																							
M.15	Result qualitative value	POSNEG									Excel	Resultado		LIMS	Resultado		LIMS			Excel			LIMS		
M.16	Type of result	VALTYP			Data received from the Lab			Data received from the Lab			Data received from the Lab			LIMS			LIMS	Resultado		Excel			LIMS		

Table 36: Biological Monitoring sections M to N

Element Code	Element Label	Controlled terminology	Mandatory AMR	Mandatory PRV	Biological Monitoring																				
					DGAV									ASAE			INIAV			IPMA			INSA		
					CAA			PIGA			PNCS			Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology
					Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology	Received as	Element label	Controlled terminology												
M.17	Result value uncertainty				Data received from the Lab			Data received from the Lab			Data received from the Lab			LIMS	Incerteza		LIMS	Incerteza		Excel	Incerteza		LIMS		
M.18	Result value uncertainty Standard deviation				Data received from the Lab			Data received from the Lab			Data received from the Lab			LIMS			LIMS			Excel			LIMS		
M.19	Result reference identification																								
M.20	Additional information on the result		O	O									Excel	Apreciação Técnica	yes								LIMS	OBSERVAÇÕES	no
N.01	Limit for the result evaluation		M		Excel				Excel			Excel				LIMS	Resultado CIM	no	Excel			Excel			
N.02	Limit for the result evaluation (High limit)																					Excel	APRADM	no	
N.03	Type of limit for the result evaluation	LMTTYP																							
N.04	Evaluation of the result	RESEVAL			Excel	Conformidade						Excel	Apreciação Técnica	yes											
N.05	Action Taken	ACTION										Excel													
N.06	Additional information on the evaluation				Excel	Não conformidade (1, 2, 3)																			

Table 37: Controlled Terminology - Units from ASAE, Domain of Biological monitoring

Unidades	SSD2_Unit	name	SSD2_POSNEG	name
25 g	G025A	Per 25 gram		
25 mL	G174A	Per 25 millilitre		
10 g	G021A	Per 10 gram		
u.f.c/g	G042A	Colony forming unit/gram		
u.f.c/mL	G043A	Colony forming unit/millilitre		
u.f.c/zaragatoa	G036A	Colony forming unit		
%	G138A	Percent		
Presença	G004A	Dimensionless	POS	Positive/Present
Positivo	G004A	Dimensionless	POS	Positive/Present
Negativo	G004A	Dimensionless	NEG	Negative/Absent

Table 38: Controlled Terminology - Parameters from ASAE, Domain of Biological monitoring (Example)

Biological monitoring domain - Parameters (ASAE)		
Determinação	SSD2_Parameter	name
Conservas - Apreciação da estabilidade. Provas de estufa	RF-XXXX-XXX-XXX	Not in list
Conservas - Apreciação da esterilidade	RF-XXXX-XXX-XXX	Not in list
Contagem da flora específica (LM)	RF-XXXX-XXX-XXX	Not in list
Contagem de Bacillus cereus (LM)	RF-00000006-MCG	Bacillus cereus
Contagem de bactérias anaeróbias mesófilas (LM)	RF-00002793-MCG	Bacteria
Contagem de bactérias anaeróbias sulfito-redutoras (LM)	RF-00002793-MCG	Bacteria
Contagem de bactérias esporuladas anaeróbias mesófilas (LM)	RF-00002793-MCG	Bacteria
Contagem de bactérias esporuladas sulfito-redutoras (LM)	RF-00002793-MCG	Bacteria
Contagem de bactérias halófilas (LM)	RF-00002793-MCG	Bacteria
Contagem de bactérias lipolíticas (LM)	RF-00002793-MCG	Bacteria
Contagem de bactérias mesófilas osmófilas (LM)	RF-00002793-MCG	Bacteria
Contagem de bactérias viáveis a 22°C (LM)	RF-00002793-MCG	Bacteria
Contagem de bactérias viáveis a 36°C (LM)	RF-00002793-MCG	Bacteria
Contagem de bolores (LM)	RF-00002797-MCG	Fungi
Contagem de bolores e leveduras Parte 1: Incubação a 25°C	RF-00002797-MCG	Fungi
Contagem de Campylobacter (LM)	RF-00000042-MCG	Campylobacter
Contagem de Clostridium perfringens (LM)	RF-00000082-MCG	Clostridium perfringens
Contagem de coliformes (LM)	RF-00002793-MCG	Bacteria
Contagem de Enterobacteriaceae (LM)	RF-XXXX-XXX-XXX	Not in list
Contagem de Enterococcus faecalis - Alimentos (LM)	RF-00000118-MCG	Enterococcus faecalis
Contagem de Enterococcus faecalis (LM)	RF-00000118-MCG	Enterococcus faecalis
Contagem de Escherichia coli (LM)	RF-00000126-MCG	Escherichia coli
Contagem de Lactobacillus bulgaricus (LM)	RF-XXXX-XXX-XXX	Not in list
Contagem de Listeria monocytogenes (LM)	RF-00000251-MCG	Listeria monocytogenes
Contagem de microrganismos a 30°C (LM)	RF-00002793-MCG	Bacteria
Contagem de microrganismos a 30°C. Processo de referência - leite condensado (LM)	RF-00002793-MCG	Bacteria
Contagem de microrganismos a 30°C. Processo de referência - leites (LM)	RF-00002793-MCG	Bacteria
Contagem de microrganismos a 30°C. Processo de referência - nata (LM)	RF-00002793-MCG	Bacteria
Contagem de microrganismos psicrotróficos (LM)	RF-00002793-MCG	Bacteria
Contagem de Pseudomonas (LM)	RF-XXXX-XXX-XXX	Not in list
Contagem de Pseudomonas aeruginosa (LM)	RF-XXXX-XXX-XXX	Not in list
Contagem de Staphylococcus coagulase positiva (LM)	RF-00002492-MCG	Staphylococcus
Contagem de Streptococcus thermophilus (LM)	RF-00002499-MCG	Streptococcus
Deteção de Escherichia coli STEC (LM)	RF-00000157-MCG	Escherichia coli VTEC, unspecified
Identificação de serogrupos de STEC (LM)	RF-00000157-MCG	Escherichia coli VTEC, unspecified
Pesquisa de Anisakídeos (LM)	RF-00002566-MCG	Anisakis
Pesquisa de bactérias coliformes (LM)	RF-00002793-MCG	Bacteria
Pesquisa de bactérias esporuladas anaeróbias. Técnica de Weinzirl (LM)	RF-00002793-MCG	Bacteria
Pesquisa de Campylobacter termotolerante (LM)	RF-00000052-MCG	Thermophilic Campylobacter spp., unspecified
Pesquisa de E. coli O157:H7 (LM)	RF-00000205-MCG	Escherichia coli VTEC O157:H7
Pesquisa de E.coli O157 (LM)	RF-00000202-MCG	Escherichia coli VTEC O157
Pesquisa de Enterobacter sakazakii/Cronobacter spp. (LM)	RF-00000110-MCG	Cronobacter sakazakii
Pesquisa de Enterotoxina Estafilocócica - Método Europeu (LM)	RF-00002485-MCG	Staphylococcal enterotoxins
Pesquisa de Enterotoxinas Estafilocócicas CI (LM)	RF-00002485-MCG	Staphylococcal enterotoxins
Pesquisa de Escherichia coli (LM)	RF-00000126-MCG	Escherichia coli
Pesquisa de Listeria monocytogenes (LM)	RF-00000251-MCG	Listeria monocytogenes
Pesquisa de Salmonella (LM)	RF-00000304-MCG	Salmonella
Pesquisa de Staphylococcus aureus (LM)	RF-00003852-MCG	Staphylococcus - S. aureus
Pesquisa de Streptococcus faecalis - Águas (LM)	RF-00000118-MCG	Enterococcus faecalis
Pesquisa de Vibrio parahaemolyticus e Vibrio cholerae (LM)	RF-00002526-MCG	Vibrio

Table 39: Controlled Terminology - Methods from ASAE, Domain of Biological monitoring (Example)

Biological monitoring domain - Methods (ASAE)				
Método	SSD2_ANLYREFM	name	SSD2_ANLYMD	name
NP 2309-1: 1988	R055A	National or regional method	F141A	Enumeration method
NP 2309-2: 1988	R055A	National or regional method	F141A	Enumeration method
NP 1864: 1987	R055A	National or regional method	F141A	Enumeration method
AFNOR BKR 23/06-02/10	R067A	AFNOR methods	F141A	Enumeration method
ISO 7932: 2004	R062A	ISO 7932:2004	F176A	EN/ISO 7932 Bacillus cereus
MMI-18 de 14/06/2011	R058A	In house method	F141A	Enumeration method
MMI-08 de 08/01/2009	R058A	In house method	F141A	Enumeration method
Inactivação, sementeira em PCA incubação a 30°C em anaerobiose	R057A	Published method	F141A	Enumeration method
ISO 15213: 2003	R048A	ISO method	F141A	Enumeration method
Sementeira em PCA com NaCl, incubação a 30°C	R057A	Published method	F141A	Enumeration method
Sementeira em meio de tributirina agar	R057A	Published method	F141A	Enumeration method
Sementeira em PCA com glucose, incubação a 30°C	R057A	Published method	F141A	Enumeration method
ISO 6222: 1999	R048A	ISO method	F141A	Enumeration method
NP 1189: 1983	R055A	National or regional method	F141A	Enumeration method
NP 3277-1: 1987	R055A	National or regional method	F141A	Enumeration method
BRD: 07/25 - 01/14 (LM)	R067A	AFNOR methods	F141A	Enumeration method
Decisão 91/180/CEE de 14/02/1991	R052A	EU legislation	F141A	Enumeration method
ISO 18593: 2004 Ponto 8 e 9; ISO 7937: 2004	R048A	ISO method	F559A	Plate isolation
ISO 7937: 2004	R062A	ISO 7932:2004	F141A	Enumeration method
MMI-14 de 13-01-2011	R058A	In house method	F141A	Enumeration method
ISO 18593: 2004 Ponto 8 e 9; ISO 4832: 2006	R048A	ISO method	F141A	Enumeration method
ISO 4832:2006	R048A	ISO method	F558A	Culture method
ISO 21528-1: 2004	R048A	ISO method	F558A	Culture method
ISO 21528-2: 2004	R048A	ISO method	F558A	Culture method
MMI-10 de 15/10/2010	R058A	In house method	F141A	Enumeration method
ISO 7899-1:1998	R048A	ISO method	F141A	Enumeration method
ISO 7899-2:2000	R048A	ISO method	F141A	Enumeration method
ISO 16649-2: 2001	R048A	ISO method	F558A	Culture method
ISO 18593: 2004 Ponto 8 e 9; ISO 16649-2: 2001	R048A	ISO method	F141A	Enumeration method
ISO 18593: 2004 Ponto 8 e 9; ISO 16649-3:2015	R048A	ISO method	F141A	Enumeration method
ISO 16649-3: 2015	R048A	ISO method	F141A	Enumeration method
NP 1864: 1987	R055A	National or regional method	F141A	Enumeration method
ISO 11290-2: 1998 Amd.1: 2004	R014A	EN ISO 11290-2:1998/Amdt 1:2004	F170A	ISO 11290-2:1998/Amd 1:2004 Listeria
ISO 18593: 2004 Ponto 8 e 9; ISO 11290-2: 1998 Amd.1: 2004	R048A	ISO method	F141A	Enumeration method
ISO 18593: 2004 Ponto 8 e 9; ISO 4833-1: 2013	R048A	ISO method	F141A	Enumeration method
ISO 4833-1: 2013	R048A	ISO method	F558A	Culture method
NP 1086: 1985	R055A	National or regional method	F141A	Enumeration method
NP 908: 1985	R055A	National or regional method	F141A	Enumeration method
NP 459: 1985	R055A	National or regional method	F141A	Enumeration method
NP 635: 1985	R055A	National or regional method	F001A	Classification not possible
NP 2307: 1987	R055A	National or regional method	F141A	Enumeration method
ISO 13720: 2010	R048A	ISO method	F141A	Enumeration method
EN 12780: 2002	R052A	EU legislation	F141A	Enumeration method

Table 40: Controlled Terminology - Parameters from ASAE, Domain of Chemical Contaminants (Example)

Chemical Contaminants domain - Parameters (ASAE)		
Determination	SSD2_PARAMETER	Name
1,2,3,4,6,7,8 - Heptaclorodibenzo-p-dioxinas	RF-00000341-ORG	1,2,3,4,6,7,8-HpCDD
1,2,3,4,6,7,8 - Heptaclorodibenzo-p-dioxinas	RF-00000341-ORG	1,2,3,4,6,7,8-HpCDD
1,2,3,4,6,7,8 - Heptaclorodibenzo-p-dioxinas	RF-00000341-ORG	1,2,3,4,6,7,8-HpCDD
1,2,3,4,6,7,8 - Heptaclorodibenzo-p-dioxinas	RF-00000341-ORG	1,2,3,4,6,7,8-HpCDD
1,2,3,4,6,7,8-Heptaclorodibenzofurano (LATC)	RF-00000330-ORG	1,2,3,4,6,7,8-HpCDF
1,2,3,4,6,7,8-Heptaclorodibenzofurano (LATC)	RF-00000330-ORG	1,2,3,4,6,7,8-HpCDF
1,2,3,4,6,7,8-Heptaclorodibenzofurano (LATC)	RF-00000330-ORG	1,2,3,4,6,7,8-HpCDF
1,2,3,4,6,7,8-Heptaclorodibenzofurano (LATC)	RF-00000330-ORG	1,2,3,4,6,7,8-HpCDF
1,2,3,4,7,8- Hexaclorodibenzo-p-dioxina	RF-00000347-ORG	1,2,3,4,7,8-HxCDD
1,2,3,4,7,8- Hexaclorodibenzo-p-dioxina	RF-00000347-ORG	1,2,3,4,7,8-HxCDD
1,2,3,4,7,8- Hexaclorodibenzo-p-dioxina	RF-00000347-ORG	1,2,3,4,7,8-HxCDD
1,2,3,4,7,8- Hexaclorodibenzo-p-dioxina	RF-00000347-ORG	1,2,3,4,7,8-HxCDD
1,2,3,4,7,8,9-Heptaclorodibenzofurano (LATC)	RF-00000331-ORG	1,2,3,4,7,8,9-HpCDF
1,2,3,4,7,8,9-Heptaclorodibenzofurano (LATC)	RF-00000331-ORG	1,2,3,4,7,8,9-HpCDF
1,2,3,4,7,8,9-Heptaclorodibenzofurano (LATC)	RF-00000331-ORG	1,2,3,4,7,8,9-HpCDF
1,2,3,4,7,8,9-Heptaclorodibenzofurano (LATC)	RF-00000331-ORG	1,2,3,4,7,8,9-HpCDF
1,2,3,4,7,8-Hexaclorodibenzofurano (LATC)	RF-00000332-ORG	1,2,3,4,7,8-HxCDF
1,2,3,4,7,8-Hexaclorodibenzofurano (LATC)	RF-00000332-ORG	1,2,3,4,7,8-HxCDF
1,2,3,4,7,8-Hexaclorodibenzofurano (LATC)	RF-00000332-ORG	1,2,3,4,7,8-HxCDF
1,2,3,4,7,8-Hexaclorodibenzofurano (LATC)	RF-00000332-ORG	1,2,3,4,7,8-HxCDF
1,2,3,6,7,8-Hexaclorodibenzofurano (LATC)	RF-00000333-ORG	1,2,3,6,7,8-HxCDF
1,2,3,6,7,8-Hexaclorodibenzofurano (LATC)	RF-00000333-ORG	1,2,3,6,7,8-HxCDF
1,2,3,6,7,8-Hexaclorodibenzofurano (LATC)	RF-00000333-ORG	1,2,3,6,7,8-HxCDF
1,2,3,6,7,8-Hexaclorodibenzofurano (LATC)	RF-00000333-ORG	1,2,3,6,7,8-HxCDF
1,2,3,6,7,8-Hexaclorodibenzo-p-dioxina	RF-00000342-ORG	1,2,3,6,7,8-HxCDD
1,2,3,6,7,8-Hexaclorodibenzo-p-dioxina	RF-00000342-ORG	1,2,3,6,7,8-HxCDD
1,2,3,6,7,8-Hexaclorodibenzo-p-dioxina	RF-00000342-ORG	1,2,3,6,7,8-HxCDD
1,2,3,6,7,8-Hexaclorodibenzo-p-dioxina	RF-00000342-ORG	1,2,3,6,7,8-HxCDD
1,2,3,7,8- Pentaclorodibenzo-p-dioxina (LATC)	RF-00000344-ORG	1,2,3,7,8-PeCDD
1,2,3,7,8- Pentaclorodibenzo-p-dioxina (LATC)	RF-00000344-ORG	1,2,3,7,8-PeCDD
1,2,3,7,8- Pentaclorodibenzo-p-dioxina (LATC)	RF-00000344-ORG	1,2,3,7,8-PeCDD
1,2,3,7,8- Pentaclorodibenzo-p-dioxina (LATC)	RF-00000344-ORG	1,2,3,7,8-PeCDD
1,2,3,7,8,9-Hexaclorodibenzofurano (LATC)	RF-00000334-ORG	1,2,3,7,8,9-HxCDF
1,2,3,7,8,9-Hexaclorodibenzofurano (LATC)	RF-00000334-ORG	1,2,3,7,8,9-HxCDF
1,2,3,7,8,9-Hexaclorodibenzofurano (LATC)	RF-00000334-ORG	1,2,3,7,8,9-HxCDF
1,2,3,7,8,9-Hexaclorodibenzofurano (LATC)	RF-00000334-ORG	1,2,3,7,8,9-HxCDF
1,2,3,7,8,9-Hexaclorodibenzo-p-dioxina (LATC)	RF-00000343-ORG	1,2,3,7,8,9-HxCDD
1,2,3,7,8,9-Hexaclorodibenzo-p-dioxina (LATC)	RF-00000343-ORG	1,2,3,7,8,9-HxCDD
1,2,3,7,8,9-Hexaclorodibenzo-p-dioxina (LATC)	RF-00000343-ORG	1,2,3,7,8,9-HxCDD
1,2,3,7,8,9-Hexaclorodibenzo-p-dioxina (LATC)	RF-00000343-ORG	1,2,3,7,8,9-HxCDD
1,2,3,7,8-Pentaclorodibenzofurano (LATC)	RF-00000335-ORG	1,2,3,7,8-PeCDF
1,2,3,7,8-Pentaclorodibenzofurano (LATC)	RF-00000335-ORG	1,2,3,7,8-PeCDF
1,2,3,7,8-Pentaclorodibenzofurano (LATC)	RF-00000335-ORG	1,2,3,7,8-PeCDF
1,2,3,7,8-Pentaclorodibenzofurano (LATC)	RF-00000335-ORG	1,2,3,7,8-PeCDF
2,3,4,6,7,8-Hexaclorodibenzofurano (LATC)	RF-00000336-ORG	2,3,4,6,7,8-HxCDF
2,3,4,6,7,8-Hexaclorodibenzofurano (LATC)	RF-00000336-ORG	2,3,4,6,7,8-HxCDF
2,3,4,6,7,8-Hexaclorodibenzofurano (LATC)	RF-00000336-ORG	2,3,4,6,7,8-HxCDF
2,3,4,6,7,8-Hexaclorodibenzofurano (LATC)	RF-00000336-ORG	2,3,4,6,7,8-HxCDF

Table 41: Controlled Terminology - Methods from ASAE, Domain Chemical Contaminants (Example)

Chemical Contaminants domain - Methods (ASAE)		
Description	SSD2_ANLYMD	Name
CMI 03	F047A	GC-HRMS
CMI-14	F021A	HPLC-UV
CMI-13	F040A	GC-FID
CMI 06	F021A	HPLC-UV
CMI 02 (brix>20)	F021A	HPLC-UV
ISO 15302:2007	F022A	HPLC-FD
CMI 05	F021A	HPLC-UV
CMI 07	F018A	High Performance Liquid Chromatography (HPLC)/Liquid Chromatography (LC)
CMI 09	F021A	HPLC-UV
OIV-MA-AS311-05:R2011	F063A	Mass Spectroscopy and hyphenated methods without chromatography
OIV Resol: MA-E-AS-312-06- ETHANO	F063A	Mass Spectroscopy and hyphenated methods without chromatography
AOAC method 998.12	F063A	Mass Spectroscopy and hyphenated methods without chromatography
AOAC method 2006.05	F063A	Mass Spectroscopy and hyphenated methods without chromatography
OIV Resol: MA-E-AS312-09-MOUO18	F063A	Mass Spectroscopy and hyphenated methods without chromatography
ISO 15302	F022A	HPLC-FD
GC-HRMS - Directiva 2006/13/CE da co	F047A	GC-HRMS
CMI 11	F500A	Unknown
EPA 610 modificado	F022A	HPLC-FD
HPLC/DAD-Fluorescência Método - E	F022A	HPLC-FD
BMI 15 de 06/04/2010	F005A	Volumetric tests
BMI 01 de 26/07/2010	F005A	Volumetric tests
Comum. CE 2010/C43/01	F004A	Gravimetric tests
Reg CE 606/2009	F018A	High Performance Liquid Chromatography (HPLC)/Liquid Chromatography (LC)
Comum. CE 2010/C43/01	F005A	Volumetric tests
Comum. CE 2010/C43/01	F005A	Volumetric tests
NP 4082:1993	F052A	AAS
NP 2442:1988	F052A	AAS
BMI07 de 01/06/2009	F016A	Standard Chromatographic tests (paper- thin layer- and column chromatography)
BMI 01 de 26/07/2010	F005A	Volumetric tests
Comum. CE 2010/C43/01	F005A	Volumetric tests
BMI 08 de 01/06/2009	F052A	AAS
Mét. Interno	F018A	High Performance Liquid Chromatography (HPLC)/Liquid Chromatography (LC)
NP 2275:1988	F016A	Standard Chromatographic tests (paper- thin layer- and column chromatography)
NP 2276:1988	F058A	AFS
NP 3683	F005A	Volumetric tests
BMI 13	F005A	Volumetric tests
Reg CE 625/2003	F001A	Classification not possible
BMI 01	F005A	Volumetric tests
BMI 08	F052A	AAS
Recueil MA-AS314-01(Ponto 2.4)	F005A	Volumetric tests
Comum. CE 2010/C43/01	F005A	Volumetric tests
Comum. CE 2010/C43/01	F001A	Classification not possible
Recueil OIV	F009A	UV/VIS spectroscopy (photometry)
Comum. CE 2010/C43/01	F009A	UV/VIS spectroscopy (photometry)
Reg 606/2009	F018A	High Performance Liquid Chromatography (HPLC)/Liquid Chromatography (LC)
Mét.Interno	F037A	Gaschromatography (GC)
Recueil OIV	F018A	High Performance Liquid Chromatography (HPLC)/Liquid Chromatography (LC)
BMI 02 de 08/04/2010	F037A	Gaschromatography (GC)
BMI 02	F037A	Gaschromatography (GC)
BMI 03 de 09/04/2010	F004A	Gravimetric tests
BMI 09 de 01/06/2009	F004A	Gravimetric tests

Table 42: Controlled Terminology - Matrix from ASAE (Example)

Matrix (ASAE)			
Food Groups	FoodEx1	FoodEx2	Exp. Hierarchy
Carne de caça selvagem; Carne de javali; Carne de javali, peças; Carne de javali, peças refrigeradas;;;	A.01.000745	A01SH#F01.A056Y\$F02.A069H\$F03.A06HZ\$F28.A07KP	Wild boar fresh meat, SOURCE=Wild boar (live animal), PART=Meat (as part-nature), STATE=Primal cuts / fillets / halves or quarters, PROCESS=Chilling
Carne de caça selvagem; Carne de outras espécies de caça selvagem; Carne de outras espécies de caça selvagem, carcaça; Carne de outras espécies de caça selvagem, carcaça congelada;;;	A.01.000744	A0BXF#F02.A069G\$F21.A07RY\$F28.A07KQ	Animal meat commodities (tissue RPCs), PART=Carcase (as part-nature), PROD=Wild or gathered or hunted, PROCESS=Freezing
Carne de caça selvagem; Carne de outras espécies de caça selvagem; Carne de outras espécies de caça selvagem, carcaça; Carne de outras espécies de caça selvagem, carcaça refrigerada;;;	A.01.000744	A0BXF#F02.A069G\$F21.A07RY\$F28.A07KP	Animal meat commodities (tissue RPCs), PART=Carcase (as part-nature), PROD=Wild or gathered or hunted, PROCESS=Chilling
Carne de caça selvagem; Carne de outras espécies de caça selvagem; Carne de outras espécies de caça selvagem, cortada/fatiada; Carne de outras espécies de caça selvagem, cortada/fatiada congelada;;;	A.01.000744	A0BXF#F03.A06JA\$F21.A07RY\$F28.A07KQ	Animal meat commodities (tissue RPCs), STATE=Slices, steaks or other flat cuts, PROD=Wild or gathered or hunted, PROCESS=Freezing
Carne de caça selvagem; Carne de outras espécies de caça selvagem; Carne de outras espécies de caça selvagem, cortada/fatiada refrigerada;;;	A.01.000744	A0BXF#F03.A06JA\$F21.A07RY\$F28.A07KP	Animal meat commodities (tissue RPCs), STATE=Slices, steaks or other flat cuts, PROD=Wild or gathered or hunted, PROCESS=Chilling
Carne de caça selvagem; Carne de outras espécies de caça selvagem; Carne de outras espécies de caça selvagem, peças; Carne de outras espécies de caça selvagem, peças congeladas;;;	A.01.000744	A0BXF#F03.A06HZ\$F21.A07RY\$F28.A07KQ	Animal meat commodities (tissue RPCs), STATE=Primal cuts / fillets / halves or quarters, PROD=Wild or gathered or hunted, PROCESS=Freezing
Carne de caça selvagem; Carne de outras espécies de caça selvagem; Carne de outras espécies de caça selvagem, peças; Carne de outras espécies de caça selvagem, peças refrigeradas;;;	A.01.000744	A0BXF#F03.A06HZ\$F21.A07RY\$F28.A07KP	Animal meat commodities (tissue RPCs), STATE=Primal cuts / fillets / halves or quarters, PROD=Wild or gathered or hunted, PROCESS=Chilling
Carne de caça selvagem; Carne de veado; Carne de veado, carcaça; Carne de veado, carcaça congelada;;;	A.01.000746	A04CE#F28.A07KQ	Deer carcase, PROCESS=Freezing
Carne de caça selvagem; Carne de veado; Carne de veado, carcaça; Carne de veado, carcaça refrigerada;;;	A.01.000746	A04CE#F28.A07KP	Deer carcase, PROCESS=Chilling
Carne de caça selvagem; Carne de veado; Carne de veado, cortada/fatiada; Carne de veado, cortada/fatiada congelada;;;	A.01.000746	A01SB#F01.A056M\$F02.A069H\$F03.A06JA\$F28.A07KQ	Deer, fallow fresh meat, SOURCE=Deer (live animal), PART=Meat (as part-nature), STATE=Slices, steaks or other flat cuts, PROCESS=Freezing
Carne de caça selvagem; Carne de veado; Carne de veado, cortada/fatiada; Carne de veado, cortada/fatiada refrigerada;;;	A.01.000746	A01SB#F01.A056M\$F02.A069H\$F03.A06JA\$F28.A07KP	Deer, fallow fresh meat, SOURCE=Deer (live animal), PART=Meat (as part-nature), STATE=Slices, steaks or other flat cuts, PROCESS=Chilling
Carne de caça selvagem; Carne de veado; Carne de veado, peças; Carne de veado, peças congeladas;;;	A.01.000746	A01SB#F01.A056M\$F02.A069H\$F03.A06HZ\$F28.A07KQ	Deer, fallow fresh meat, SOURCE=Deer (live animal), PART=Meat (as part-nature), STATE=Primal cuts / fillets / halves or quarters, PROCESS=Freezing
Carne de caça selvagem; Carne de veado; Carne de veado, peças; Carne de veado, peças refrigeradas;;;	A.01.000746	A01SB#F01.A056M\$F02.A069H\$F03.A06HZ\$F28.A07KP	Deer, fallow fresh meat, SOURCE=Deer (live animal), PART=Meat (as part-nature), STATE=Primal cuts / fillets / halves or quarters, PROCESS=Chilling
Carne de caprino; Carne de caprino, carcaça; Carne de caprino, carcaça congelada;;;	A.01.000733	A04AS#F28.A07KQ	Goat carcase, PROCESS=Freezing
Carne de caprino; Carne de caprino, carcaça; Carne de caprino, carcaça refrigerada;;;	A.01.000733	A04AS#F28.A07KP	Goat carcase, PROCESS=Chilling
Carne de caprino; Carne de caprino, cortada/fatiada; Carne de caprino, cortada/fatiada congelada;;;	A.01.000733	A01RL#F01.A057P\$F02.A069H\$F03.A06JA\$F28.A07KQ	Goat muscle, SOURCE=Goat (live animal), PART=Meat (as part-nature), STATE=Slices, steaks or other flat cuts, PROCESS=Freezing
Carne de caprino; Carne de caprino, cortada/fatiada; Carne de caprino, cortada/fatiada refrigerada;;;	A.01.000733	A01RL#F01.A057P\$F02.A069H\$F03.A06JA\$F28.A07KP	Goat muscle, SOURCE=Goat (live animal), PART=Meat (as part-nature), STATE=Slices, steaks or other flat cuts, PROCESS=Chilling
Carne de caprino; Carne de caprino, peças; Carne de caprino, peças congeladas;;;	A.01.000733	A01RL#F01.A057P\$F02.A069H\$F03.A06HZ\$F28.A07KQ	Goat muscle, SOURCE=Goat (live animal), PART=Meat (as part-nature), STATE=Primal cuts / fillets / halves or quarters, PROCESS=Freezing
Carne de caprino; Carne de caprino, peças; Carne de caprino, peças refrigeradas;;;	A.01.000733	A01RL#F01.A057P\$F02.A069H\$F03.A06HZ\$F28.A07KP	Goat muscle, SOURCE=Goat (live animal), PART=Meat (as part-nature), STATE=Primal cuts / fillets / halves or quarters, PROCESS=Chilling
Carne de coelho; Carne de coelho, carcaça; Carne de coelho, carcaça congelada;;;	A.01.000735	A04BV#F28.A07KQ	Rabbit carcase, PROCESS=Freezing
Carne de coelho; Carne de coelho, carcaça; Carne de coelho, carcaça refrigerada;;;	A.01.000735	A04BV#F28.A07KP	Rabbit carcase, PROCESS=Chilling
Carne de coelho; Carne de coelho, cortada/fatiada; Carne de coelho, cortada/fatiada congelada;;;	A.01.000735	A01RQ#F01.A057T\$F02.A069H\$F03.A06JA\$F28.A07KQ	Rabbit fresh meat, SOURCE=Rabbit (live animal), PART=Meat (as part-nature), STATE=Slices, steaks or other flat cuts, PROCESS=Freezing
Carne de coelho; Carne de coelho, cortada/fatiada; Carne de coelho, cortada/fatiada refrigerada;;;	A.01.000735	A01RQ#F01.A057T\$F02.A069H\$F03.A06JA\$F28.A07KP	Rabbit fresh meat, SOURCE=Rabbit (live animal), PART=Meat (as part-nature), STATE=Slices, steaks or other flat cuts, PROCESS=Chilling
Carne de coelho; Carne de coelho, peças; Carne de coelho, peças congeladas;;;	A.01.000735	A01RQ#F01.A057T\$F02.A069H\$F03.A06HZ\$F28.A07KQ	Rabbit fresh meat, SOURCE=Rabbit (live animal), PART=Meat (as part-nature), STATE=Primal cuts / fillets / halves or quarters, PROCESS=Freezing

Table 43: Controlled Terminology - Sampling Point from ASAE

Ponto de colheita	SSD2_SAMPNT name	
Armazenista/grossista	E510A	Wholesale
Retalho	E520A	Retail
Indústria	E300A	Manufacturing
Catering	E900A	Catering
Restauração	E910A	Restaurant or Cafe or Pub or Bar or Hotel or Catering service
Venda ambulante	E920A	Mobile retailer or market/street vendor
Distribuição e Transporte	E800A	Transport
Embalador	E600A	Packing centre
Produção primária	E100A	Primary production
Outro	E099A	Others

Table 44: Controlled Terminology - NUTS from ASAE (Example)

NUTS (ASAE)	
Description	SSD2_NUTS
Abrantes - PT16C	PT16C
Águeda - PT161	PT161
Aguiar da Beira - PT165	PT165
Alandroal - PT183	PT183
Albergaria-a-Velha - PT161	PT161
Albufeira - PT15	PT15
Alcácer do Sal - PT181	PT181
Alcanena - PT16C	PT16C
Alcobaça - PT16B	PT16B
Alcochete - PT172	PT172
Alcoutim - PT15	PT15
Alenquer - PT16B	PT16B
Alfândega da Fé - PT118	PT118
Alijó - PT117	PT117
Aljezur - PT15	PT15
Aljustrel - PT184	PT184
Almada - PT172	PT172
Almeida - PT168	PT168
Almeirim - PT185	PT185
Almodôvar - PT184	PT184
Alpiarça - PT185	PT185
Alter do Chão - PT182	PT182
Alvaiázere - PT164	PT164
Alvito - PT184	PT184
Amadora - PT171	PT171
Amarante - PT115	PT115
Amares - PT112	PT112
Anadia - PT161	PT161
Angra do Heroísmo - PT2	PT2
Ansião - PT164	PT164
Arcos de Valdevez - PT111	PT111
Arganil - PT164	PT164
Armamar - PT117	PT117
Arouca - PT116	PT116
Arraiolos - PT183	PT183
Arronches - PT182	PT182
Arruda dos Vinhos - PT16B	PT16B
Aveiro - PT161	PT161
Avis - PT182	PT182
Azambuja - PT185	PT185
Baião - PT115	PT115
Barcelos - PT112	PT112
Barrancos - PT184	PT184
Barreiro - PT172	PT172
Batalha - PT163	PT163
Beja - PT184	PT184
Belmonte - PT16A	PT16A
Benavente - PT185	PT185

Table 45: Controlled Terminology - Country from ASAE (Example)

Country (ASAE)		
Description	SSD2_COUNTRY	SSD2 Name
Afeganistão	AF	Afghanistan
África do Sul	ZA	South Africa
Albania	AL	Albania
Alemanha	DE	Germany
Andorra	AD	Andorra
Angola	AO	Angola
Antartica	AQ	Antarctica
Antígua e Barbados	AG	Antigua and Barbuda
Antilhas Holandesas	AN	Netherlands Antilles
Arábia Saudita	SA	Saudi Arabia
Argélia	DZ	Algeria
Argentina	AR	Argentina
Arménia	AM	Armenia
Aruba	AW	Aruba
Austrália	AU	Australia
Austria	AT	Austria
Azerbaijão	AZ	Azerbaijan
Bahamas	BS	Bahamas
Bahrain	BH	Bahrain
Bangladesh	BD	Bangladesh
Barbados	BB	Barbados
Bélgica	BE	Belgium
Belize	BZ	Belize
Benim	BJ	Benin
Bermudas	BM	Bermuda
Bielorrússia	BY	Belarus
Birmânia	MM	Myanmar
Bolívia	BO	Bolivia, Plurinational State of
Bósnia e Herzegovina	BA	Bosnia and Herzegovina
Botsuana	BW	Botswana
Brasil	BR	Brazil
Brunei	BN	Brunei Darussalam
Bulgária	BG	Bulgaria
Burkina Faso	BF	Burkina Faso
Burundi	BI	Burundi
Butão	BT	Bhutan
Cabo Verde	CV	Cape Verde
Camarões	CM	Cameroon
Camboja	KH	Cambodia

Table 46: Controlled Terminology - Action taken from ASAE

Medidas Tomadas	SSD2_ACTION	name
Retirada do mercado	S	Lot recalled from the market
Inspeção ao local de colheita	O	Other
Inspeção à unidade onde foi produzido/transformado	O	Other
Retirada do mercado+Inspeção ao local de colheita+nova colheita de amostras	O	Other
Nova colheita de amostras	O	Other

Table 47: Controlled Terminology - Program type from DGAV

Âmbito Colheita	SSD2_PRGTY	name
Autocontrolo	K012A	Industry/ private programme
Inspeção Sanitária	K014A	Other/ Combination of several programmes
Abate sanitário	K014A	Other/ Combination of several programmes
Gripe Aviária	K021A	Control and eradication programmes
RASFF	K033A	RASSF alert notification
PIGA	K005A	Official (National) programme
PIGA (Seguimento)	K005A	Official (National) programme
PNCR	K005A	Official (National) programme
PNCR (ASAE)	K005A	Official (National) programme
PNCR (Suspeita/Sequestro)	K005A	Official (National) programme
Pesticidas	K005A	Official (National) programme
PVRAM	K005A	Official (National) programme
Outro	K029A	Unspecified
Alimentação Animal	K005A	Official (National) programme
Certificação para exportação	K019A	EU increased control programme on imported food

Table 48: Controlled Terminology - Matrix from DGAV (Example)

Matrix (DGAV)		
Concatenado	FoodEx2	FoodEx2_Texto
Alimentação Animal # Forragem # # #	A0BKT	Forages and roughage, and products derived thereof (feed)
Alimentação Animal # Premix # # #	A0BV1	Complementary feed (incomplete diet)
Alimentação Animal # Ração # # #	A0BT1	Complete feed
Alimentação Animal # Silagem # # #	A0BKT	Forages and roughage, and products derived thereof (feed)
PIGA # Água # Água de furo hertziano # #	A03DP	Well water
PIGA # Água # Água potável # #	A03DL	Tap water
PIGA # Carne de Bovino # Carçaça # Congelado #	A049Q#F28.A07KQ	Bovine carcass, PROCESS=Freezing
PIGA # Carne de Bovino # Carçaça # Refrigerado #	A049Q#F28.A07KP	Bovine carcass, PROCESS=Chilling
PIGA # Carne de Caprino # Carçaça # Congelado #	A04AS#F28.A07KQ	Goat carcass, PROCESS=Freezing
PIGA # Carne de Caprino # Carçaça # Refrigerado #	A04AS#F28.A07KP	Goat carcass, PROCESS=Chilling
PIGA # Carne de Ovíno # Carçaça # Congelado #	A04AJ#F28.A07KQ	Sheep carcass, PROCESS=Freezing
PIGA # Carne de Ovíno # Carçaça # Refrigerado #	A04AJ#F28.A07KP	Sheep carcass, PROCESS=Chilling
PIGA # Productos Lácteos (excepto Queijos) # Bebidas próbióticas # #	A02NR	Probiotic milk-like drinks
PIGA # Queijo de leite de origem indeterminada ou de outras espécies animais produtoras de leite # Barrar # #	A031C	Processed cheese, spreadable
PIGA (Seguimento) # Água # Água de furo hertziano # #	A03DP	Well water
PIGA (Seguimento) # Água # Água potável # #	A03DL	Tap water
PIGA (Seguimento) # Carne de Bovino # Carçaça # Congelado #	A049Q#F28.A07KQ	Bovine carcass, PROCESS=Freezing
PIGA (Seguimento) # Carne de Bovino # Carçaça # Refrigerado #	A049Q#F28.A07KP	Bovine carcass, PROCESS=Chilling
PIGA (Seguimento) # Carne de Caprino # Carçaça # Congelado #	A04AS#F28.A07KQ	Goat carcass, PROCESS=Freezing
PIGA (Seguimento) # Carne de Caprino # Carçaça # Refrigerado #	A04AS#F28.A07KP	Goat carcass, PROCESS=Chilling
PIGA (Seguimento) # Carne de Ovíno # Carçaça # Congelado #	A04AJ#F28.A07KQ	Sheep carcass, PROCESS=Freezing
PIGA (Seguimento) # Carne de Ovíno # Carçaça # Refrigerado #	A04AJ#F28.A07KP	Sheep carcass, PROCESS=Chilling
PIGA (Seguimento) # Productos Lácteos (excepto Queijos) # Bebidas próbióticas # #	A02NR	Probiotic milk-like drinks
PIGA (Seguimento) # Queijo de leite de origem indeterminada ou de outras espécies animais produtoras de leite # Barrar # #	A031C	Processed cheese, spreadable

Table 49: Controlled Terminology - Parameter from DGAV, Domain of Biological Monitoring (Example)

Biological monitoring domain - Parameters (DGAV)		
Determination	SSD2_Parameter	Name
Adenovirus	RF-0000220-MCG	Adenovirus
Aeromonas	RF-00002557-MCG	Aeromonas
Aeromonas Aeromonas spp., inespecifico	RF-00002559-MCG	Aeromonas spp., unspecified
Aeromonas caviae	RF-00002560-MCG	Aeromonas caviae
Aeromonas hydrophila	RF-00002558-MCG	Aeromonas hydrophila
Aeromonas veronii	RF-00002561-MCG	Aeromonas veronii
Afipia felis	RF-00002563-MCG	Afipia felis
Aichivirus	RF-00002565-MCG	Aichi virus
Aichivirus	RF-00002565-MCG	Aichi virus
Anisakis	RF-00002566-MCG	Anisakis
Anisakis simplex	RF-00002567-MCG	Anisakis simplex
Anisakis spp., inespecifico	RF-00002568-MCG	Anisakis spp., unspecified
Astrovirus	RF-00000002-MCG	Astrovirus
Astrovirus	RF-00000002-MCG	Astrovirus
Bacillus anthracis	RF-00000005-MCG	Bacillus anthracis
Bacillus cereus	RF-00000006-MCG	Bacillus cereus
Bacillus licheniformis	RF-00000008-MCG	Bacillus licheniformis
Bacillus pumilis	RF-00000010-MCG	Bacillus pumilis
Bacillus spp., inespecifico	RF-00000007-MCG	Bacillus spp., unspecified
Bacillus subtilis	RF-00000009-MCG	Bacillus subtilis
Balantidium coli	RF-00000012-MCG	Balantidium coli
Balantidium spp., inespecifico	RF-00000013-MCG	Balantidium spp., unspecified
Bartonella henselae	RF-00000015-MCG	Bartonella henselae
Bartonella spp., inespecifico	RF-00000016-MCG	Bartonella spp., unspecified
Biotoxinas marinhas	RF-00000009-TOX	Marine biotoxins
Biotoxinas marinhas - ciguatoxina	RF-00000450-TOX	Marine biotoxins - ciguatoxin
Biotoxinas marinhas - PSP	RF-00000451-TOX	Marine biotoxins - muscle-paralysing toxin
Borrelia burgdorferi	RF-00000035-MCG	Borrelia burgdorferi
Borrelia recurrentis	RF-00000034-MCG	Borrelia recurrentis
Borrelia spp., inespecifico	RF-00000038-MCG	Borrelia spp., unspecified
Brucella	RF-00000028-MCG	Brucella
Brucella abortus	RF-00003007-MCG	Brucella - B. abortus
Brucella canis	RF-00003008-MCG	Brucella - B. canis
Brucella melitensis	RF-00003010-MCG	Brucella - B. melitensis
Brucella noetomae	RF-00003011-MCG	Brucella - B. noetomae
Brucella ovis	RF-00003012-MCG	Brucella - B. ovis
Brucella spp., inespecifico	RF-00000036-MCG	Brucella spp., unspecified
Brucella suis	RF-00003014-MCG	Brucella - B. suis
Calicivirus (including norovirus) norovirus (Norwalk-like virus)	RF-00000041-MCG	norovirus (Norwalk-like virus)
Calicivirus (including norovirus) sapovirus (Sapparo-like virus)	RF-00000040-MCG	sapovirus (Sapparo-like virus)
Calicivirus norovirus (Norwalk-like virus)		
Calicivirus sapovirus (Sapparo-like virus)		
Campylobacter coli	RF-00000054-MCG	Campylobacter coli
Campylobacter cryaerophilus	RF-00000050-MCG	Campylobacter cryaerophilus
Campylobacter curvus	RF-00000049-MCG	Campylobacter curvus
Campylobacter fetus subsp. fetus	RF-00000056-MCG	Campylobacter fetus subsp. fetus
Campylobacter fetus subsp. venerealis	RF-00000057-MCG	Campylobacter fetus subsp. venerealis
Campylobacter gracilis	RF-00000053-MCG	Campylobacter gracilis

Table 50: Controlled Terminology - Unit from DGAV

Unidade da Amostra	SSD2_Unit	Name
Unitário	G005A	Unit
Lote		

There is no code in the SSD2 catalogue UNIT for the term "Lot".

Table 51: Controlled Terminology - Sampling point from DGAV

Fases Cadeia	SSD2_SAMPNT	Name
Produção	E300A	Manufacturing
Produção primária	E100A	Primary production
Produção/Indústria	E300A	Manufacturing
Distribuição	E500A	Distribution: wholesale and retail sale
Retalho	E520A	Retail

Table 52: Controlled Terminology - Result from DGAV

Resultado	SSD2_POSNEG	Name	SSD2_VALTYP	Name
Positivo	POS	Positive/Present	BIN	Qualitative Value (Binary)
Negativo	NEG	Negative/Absent	BIN	Qualitative Value (Binary)
Quantificação			VAL	Numerical Value

Table 53: Controlled Terminology - Methods from DGAV

Método	SSD2_ANLYMD	Name	SSD2_ANLTREFMD	Name
EN/ISO 11290-1	F169A	ISO 11290-1:1996/Amd 1:2004 Listeria	R013A	EN ISO 11290-1:1996/Amdt 1:2004
EN/ISO 11290-2	F170A	ISO 11290-2:1998/Amd 1:2004 Listeria	R014A	EN ISO 11290-2:1998/Amdt 1:2004
EN/ISO 6579	F137A	ISO 6579:2002	R001A	EN ISO 6579:2002
ISO 4833	F558A	Culture method	R048A	ISO method
ISO 21528-2	F558A	Culture method	R048A	ISO method
ISO 16649-1	F558A	Culture method	R048A	ISO method
ISO 16649-2	F558A	Culture method	R048A	ISO method
ISO 16649-3	F558A	Culture method	R048A	ISO method
Método europeu de deteção do LCR para estafilococos coagulase positivos	F144A	Detection method of microorganisms	R044A	EURL Coagulase Positive Staphylococci method: MI CEB 06 PFGE Staph rev 4, 28/02/2011
ISO/TS 22946	F177A	ISO/TS 22964:2006 (IDF/RM 210: 2006) Cronobacter spp. (Enterobacter sakazakii)	R019A	CEN ISO TS 22964:2006
HPLC	F018A	High Performance Liquid Chromatography (HPLC)/Liquid Chromatography (LC)		
Sistema White-Kaufmann-Le Minor	F550A	Serotyping	PrEN ISO/TR 6579-3	PrEN ISO/TR 6579-3
CEN/ISO TS 13136	F173A	ISO/TS 13136:2012 E. coli	R012A	ISO/TS 13136:2012
ISO 21528-2	F558A	Culture method	R048A	ISO method
EN/ISO 6888-1	F171A	EN ISO 6888-1:1999/Amdt 1:2003 Coagulase-positives	R015A	EN ISO 6888-1:1999/Amdt 1:2003
EN/ISO 6888-2	F172A	EN ISO 6888-2:1999/Amdt 1:2003 Coagulase-positives	R016A	EN ISO 6888-2:1999/Amdt 1:2003
EN/ISO 7932	F176A	EN/ISO 7932 Bacillus cereus	R062A	ISO 7932:2004
LC-MSMS	F027A	LC-MS/MS		
ISO 4832:2006	F558A	Culture method	R048A	ISO method
ISO 21527-1:2008	F558A	Culture method	R048A	ISO method
ISO 10272-1:2006	F163A	ISO 10272-1:2006 Campylobacter	R048A	ISO method
ISO 7927:2004	F500A	Unknown	R048A	ISO method
AAS (AMA-254)	F052A	AAS		
ELISA	F080A	Enzyme-linked immunosorbent assay (ELISA)		
GC-ECD	F039A	GC-ECD		
GCMS	F046A	GC-MS		
GF-AAS	F363A	GC-AAS		
HPLC-FI	F022A	HPLC-FD		
ICP-MS	F064A	ICP-MS		
LCMS	F026A	LC-MS		
LC-TOF	F334A	LC-TOF-MS		
UPLC-MSMS	F033A	UPLC-MSMS		
TEMPO TVC AFNOR (BIO 12/15-09/05)	F141A	Enumeration method	R067A	AFNOR methods
TEMPO EB AFNOR (BIO 12/21-12/06)	F141A	Enumeration method	R067A	AFNOR methods
RapidSalmonella AFNOR BRD07/11-12/05	F167A	ISO 6579:2002 Salmonella	R067A	AFNOR methods
TEMPO EC AFNOR (BIO 12/13-02/05)	F141A	Enumeration method	R067A	AFNOR methods

Table 54: Controlled Terminology - Parameter from DGAV, Domain of Pesticides Residues (Example)

Analito/pesticida	SSD2_PARAM	Name
2,4,5-TP	RF-0458-001-PPP	2,4,5-TP
2,4-D	RF-0010-003-PPP	2,4-D
2,4-DP (diclorprope)	RF-0126-002-PPP	Dichlorprop
abamectina	RF-0011-001-PPP	Abamectin (sum of Avermectin B1a, Avermectin B1b and delta-8,9 isomer of Avermectin B1a)
acefato	RF-0012-001-PPP	Acephate
acetamiprida	RF-0014-001-PPP	Acetamiprid
acrinatrina	RF-0018-001-PPP	Acrinathrin
aldicarbe (soma de aldicarbe , ald. Sulfóxido e ald. Sulfona)	RF-0020-001-PPP	Aldicarb (sum of Aldicarb, its sulfoxide
aldicarbe	RF-0020-002-PPP	Aldicarb
aldicarbe sulfona	RF-0020-004-PPP	Aldicarb-Sulfone
aldicarbe sulfóxido	RF-0020-003-PPP	Aldicarb-Sulfoxide
aldrina	RF-0021-002-PPP	Aldrin
amitraze	RF-0024-002-PPP	Amitraz
DMF (2,4-dimetilfenilformamida)	RF-0024-003-PPP	Dimethylphenylformamide, 2,4-
DMPF (N-2,4-dimetilfenil-N-metilformamidina)	RF-0024-004-PPP	Dimethylphenyl-N-methylformamidine, N-
amitrole	RF-0025-001-PPP	Amitrole
atrazina	RF-0029-001-PPP	Atrazine
azinfos-etilo	RF-0032-001-PPP	Azinphos-ethyl
azinfos-metilo	RF-0033-001-PPP	Azinphos-methyl
azoxistrobina	RF-0035-001-PPP	Azoxystrobin
benalaxil	RF-0038-002-PPP	Benalaxyl
bendiocarbe	RF-0489-001-PPP	Bendiocarb
benfuracarbe	RF-0040-001-PPP	Benfuracarb
bifenox	RF-0045-001-PPP	Bifenox
bifentrina	RF-0046-001-PPP	Bifenthrin
binapacril	RF-0047-001-PPP	Binapacryl
bitertanol	RF-0048-001-PPP	Bitertanol
Bixafena	RF-00000010-PAR	Bixafen (sum of bixafen and desmethyl-
boscalide	RF-0049-001-PPP	Boscalid
bromofos-metilo	RF-0988-001-PPP	Bromophos-methyl
bromopropilato	RF-0052-001-PPP	Bromopropylate
bromuconazol	RF-0054-001-PPP	Bromuconazole (sum of diastereoisomers)
bupirimato	RF-0055-001-PPP	Bupirimate
buprofezina	RF-0056-001-PPP	Buprofezin
butocarboxime (soma de butocarboxime e butocarboxime sulfóxido)	RF-0523-001-PPP	Butocarboxim (sum)
butocarboxime	RF-0522-001-PPP	Butocarboxim
butocarboxime sulfóxido	RF-0524-001-PPP	Butocarboxim-Sulfoxid
butoxicarboxime	RF-0525-001-PPP	Butoxyarboxim
cadusafos	RF-0528-001-PPP	Cadusafos
captafol	RF-0060-001-PPP	Captafol
captana	RF-0061-001-PPP	Captan
carbaril	RF-0062-001-PPP	Carbaryl
carbendazime (soma de carbendazime + benomil)	RF-0041-001-PPP	Carbendazim and benomyl (sum of
carbendazime	RF-0041-002-PPP	Carbendazim
benomil	RF-0041-003-PPP	Benomyl
carbofurão (soma de carbofurão e carbofurão- 3-hidroxi)	RF-0065-001-PPP	Carboturan (sum of carboturan and 3-
carbofurão	RF-0065-003-PPP	Carboturan
carbofurão- 3-hidroxi	RF-0065-002-PPP	Carboturan, 3-hydroxy
carbofurão-3-ceto	RF-0534-001-PPP	Carboturan, 3-keto
carbossilfão	RF-0068-001-PPP	Carbosulfan
carboxina	RF-0069-001-PPP	Carboxin
ciflutrina (soma de isómeros)	RF-0108-001-PPP	Cyfluthrin (Cyfluthrin including other
betaciflutrina	RF-0108-002-PPP	Cyfluthrin, beta-
Cimoxanil	RF-0111-001-PPP	Cymoxanil
cipermetrina (soma de isómeros)	RF-0112-001-PPP	Cypermethrin (Cypermethrin including
alfa-cipermetrina (alfametrina)	RF-0112-002-PPP	Alphamethrin
ciproconazol	RF-0113-001-PPP	Cyproconazole
ciprodinil	RF-0114-001-PPP	Cyprodinil
ciromazina	RF-0115-001-PPP	Cyromazine
clofentezina	RF-0098-001-PPP	Clofentazine
clorantraniliprol	RF-0072-001-PPP	Chlorantraniliprole (DPX E-2Y45)
clorbenzilato	RF-0082-001-PPP	Chlorobenzilate
clordano	RF-0075-002-PPP	Chlordane
clorfenapir	RF-0077-001-PPP	Chlorfenapyr
clorfenvinfos	RF-0079-001-PPP	Chlorfenvinphos
clormequato	RF-0081-001-PPP	Chlormequat
clorotolurão	RF-0092-001-PPP	Chlorotoluron
clortalonil	RF-0084-001-PPP	Chlorothalonil
clorpirifos	RF-0087-001-PPP	Chlorpyrifos
clorpirifos-metilo	RF-0088-001-PPP	Chlorpyrifos-methyl

Table 55: Controlled Terminology - Parameter from INIAV, Domain of Biological Monitoring (Example)

Name	Taxon Type	SSD2_Parameter	Name
Babesia canis	Parasita	RF-00002680-MCG	Babesia canis
Babesia caballi	Parasita	RF-00002679-MCG	Babesia caballi
Babesia ovis	Parasita	RF-00002691-MCG	Babesia ovis
C. fetus subsp. fetus	Campylobacter	RF-00000056-MCG	Campylobacter fetus subsp. fetus
C. sputorum subsp. sputorum	Campylobacter	RF-00000067-MCG	Campylobacter sputorum subsp. sputorum
C. sputorum subsp. bubulus	Campylobacter	RF-00000065-MCG	Campylobacter sputorum subsp. bubulus
C. sp.	Campylobacter	RF-00000044-MCG	Campylobacter spp., unspecified
Mycoplasma sp.	Mycoplasma	RF-00000281-MCG	Mycobacterium spp., unspecified
Mycoplasma bovis	Mycoplasma	RF-00003002-MCG	Mycobacterium - M. bovis
Staphylococcus aureus	Mamite	RF-00003852-MCG	Staphylococcus - S. aureus
Klebsiella pneumoniae	Bactéria	RF-00000235-MCG	Klebsiella pneumoniae
Escherichia coli	Bactéria	RF-00000126-MCG	Escherichia coli
Bacillus anthracis	Bactéria	RF-00000005-MCG	Bacillus anthracis
Bacillus cereus	Bactéria	RF-00000006-MCG	Bacillus cereus
Bacillus licheniformis	Bactéria	RF-00000008-MCG	Bacillus licheniformis
Bacillus pumilus	Bactéria	RF-00000010-MCG	Bacillus pumilus
Bacillus spp	Bactéria	RF-00000007-MCG	Bacillus spp., unspecified
Bacillus subtilis	Bactéria	RF-00000009-MCG	Bacillus subtilis
Chlamydia psittaci	Bactéria	RF-00000075-MCG	Chlamydia psittaci
Chlamydia sp	Bactéria	RF-00000076-MCG	Chlamydia spp., unspecified
Clostridium botulinum	Bactéria	RF-00003850-MCG	Clostridium - C. botulinum
Clostridium difficile	Bactéria	RF-00003851-MCG	Clostridium - C. difficile
Clostridium perfringens	Bactéria	RF-00000082-MCG	Clostridium perfringens
Clostridium spp	Bactéria	RF-00000081-MCG	Clostridium spp., unspecified
Enterococcus durans	Bactéria	RF-00001330-PAR	Enterococcus, non-pathogenic - E. durans
Enterococcus faecalis	Bactéria	RF-00000118-MCG	Enterococcus faecalis
Enterococcus faecium	Bactéria	RF-00000117-MCG	Enterococcus faecium
Enterococcus hirae	Bactéria	RF-00001329-PAR	Enterococcus, non-pathogenic - E. hirae

Table 56: Controlled Terminology - Unit from INIAV

Name	SSD2_Unit	Name
mol	G119A	Mole
m	G111A	Metre
kg	G167A	Kilogram
s	G097A	Second
mmol	G115A	Millimole
m ²	G130A	Square metre
cm ²	G090A	Square centimetre
C	G101A	Coulomb
g/l	G016A	Gram/litre
N	G122A	Newton
mm	G157A	Millimeter
cm	G146A	Centimeter
mg	G155A	Milligram
ng	G120A	Nanogram
ton	G100A	Tonne
g	G148A	Gram
%	G138A	Percent
Pa	G124A	Pascal
DegC	G141A	Degree Celsius
min	G074A	Minute
hr	G099A	Hour
day	G134A	Day
semana	G205A	Week
mon	G206A	Month
ano	G207A	Year
l	G154A	Litre
cu_m	G108A	Cubic metre
cl	G137A	Centilitre
ml	G156A	Millilitre
µl	G112A	Microlitre
UFC	G036A	Colony forming unit
kcal	G107A	Kilocalorie
UI	G105A	International unit
mg/kg	G061A	Milligram/kilogram
µg/kg	G050A	Microgram/kilogram
ng/kg	G077A	Nanogram/kilogram
ng/g	G076A	Nanogram/gram
ng/ml	G079A	Nanogram/millilitre
g/kg	G015A	Gram/kilogram
µg/l	G051A	Microgram/litre
frasco	G103A	Container
mg/l	G062A	Milligram/litre
mg/ml	G191A	Milligram/millilitre
IU	G105A	International unit

Table 57: Controlled Terminology - Matrix from INIAV (Example)

INIAV - Food Groups	FoodEx1	FoodEx2_Exposure hierarchy_07_01_2015	
Água	A.01.001573	A03DK	Drinking water
Açúcar	A.01.001268	A032G	Sugars (mono- and di-saccharides)
Mel	A.01.001340	A033J	Honey
Alimentação animal	G.0.0	A0BB9	Feed
Alimentos para animais	G.14	A0BB9	Feed
Bebidas não alcoólicas	A.01.001470	A0F0J	Water, water-based beverages and related ingredients
Carne e produtos cárneos	A.01.000727	A0EZS	Mammals and birds meat and products thereof
Cereais	A.01.000001	A0EZF	Cereal grains and similar and primary derivatives thereof
Leguminosas	A.01.000486	A0EZG	Legume seeds and primary derivatives thereof
Condimentos	A.01.001580	A042N	Seasoning, sauces and condiments
Especiarias	A.01.001580	A0EZM	Herbs, spices and similar
Fígado	A.01.000727	A01XD	Animal liver
Frutos	A.01.000544	A0EZN	Fruit and primary derivatives thereof
Produtos hortícolas	A.01.000317	A07XJ	Garden vegetables and primary derivatives thereof
Gordura	A.01.001347	A036M	Animal and vegetable fats and oils and primary derivatives thereof
Leite e produtos lácteos	A.01.000948	A0BXZ	Milk and milk products (dairy)
Óleos	A.01.001367	A036M	Animal and vegetable fats and oils and primary derivatives thereof
Ovo e ovoprodutos	A.01.001252	A031E	Eggs and egg products
Pescado e produtos da pesca	A.01.000876	A0EZR+A0EZQ	Fish meat and products thereof+Seafood and products thereof
Pré-cozinhados	A.01.001789	A03VA	Composite dishes
Produtos pastelaria	A.01.000253	A008G+A009T	Raw doughs and pre-mixes+Fine bakery wares
Rim	A.01.000727	A01YG	Animal kidney
Sangue	G.9.8	A0BN5	Blood products (feed)
Sangue (Food)		A0F1T	Animal blood

Table 58: Controlled Terminology - Parameter from INIAV, Domain of Chemical Contaminants (Example)

Químicos	SSD2_Parameter	name
Cálcio	RF-00000007-CHE	Calcium (Ca)
Cádmio	RF-00000150-CHE	Cadmium (Cd)
Aflatoxina B1	RF-00000150-TOX	Aflatoxin B1
Aflatoxina B2	RF-00000151-TOX	Aflatoxin B2
Aflatoxina G1	RF-00000152-TOX	Aflatoxin G1
Aflatoxina G2	RF-00000153-TOX	Aflatoxin G2
Aflatoxina M1	RF-00000155-TOX	Aflatoxin M1
Vomitoxina	RF-00000165-TOX	Deoxynivalenol
Cobre	RF-00000167-CHE	Copper (Cu)
Mercúrio	RF-00000170-CHE	Total mercury
Zearalenona	RF-00000170-TOX	Zearalenone
Chumbo	RF-00000174-CHE	Lead (Pb)
Fumonisina B1	RF-00000177-TOX	Fumonisin B1
Fumonisina B2	RF-00000178-TOX	Fumonisin B2
Zinco	RF-00000205-CHE	Zink (Zn)
Ocratoxina	RF-00000430-TOX	Ochratoxins

Table 59: Controlled Terminology - Methods from INSA, Domain of Chemical Contaminants

INSA Metodos	SSD2_ANLYMD	Name
DAN URMR-PE10_01 L	F064A	ICP-MS
DAN URMR-PE10_02 L	F064A	ICP-MS
DAN URQ-PE02_02 L	F350A	FAAS
DAN URQ-PE03_02 L	F350A	FAAS
DAN URQ-PE03_03 L	F350A	FAAS
DAN URQ-PE04_03 L	F350A	FAAS
DAN URQ-PE04_04 L	F350A	FAAS
DAN URQ-PE06_02 L	F350A	FAAS
DAN URQ-PE07_03 L	F009A	UV/VIS spectroscopy (photometry)
DAN URQ-PE07_04 L	F009A	UV/VIS spectroscopy (photometry)
DAN URQ-PE29_01 L	F055A	AES
DAN URQ-PE29_02 L	F055A	AES
EPA 7473:2007	F052A	AAS
Espectrometria de Massa	F063A	Mass Spectroscopy and hyphenated methods without chromatography
HPLC	F018A	Chromatography (HPLC)/Liquid
ICP-OES	F057A	ICP-AES

Table 60: Controlled Terminology - Parameter from INSA, Domain of Chemical Contaminants

INSA_Químicos	SSD2_Parameter	Name
Cloretos	RF-00000015-CHE	Chlorates
Fósforo	RF-00000031-CHE	Phosphorus (P)
Potássio	RF-00000053-CHE	Potassium (K)
Magnésio	RF-00000060-CHE	Magnesium (Mg)
Sódio	RF-00000067-CHE	Sodium (Na)
Nitratos	RF-00000085-CHE	Nitrate
Arsénio (ICP-MS)	RF-00000128-CHE	Arsenic (As)
Ocratoxina A	RF-00000148-TOX	Ochratoxin A
Cádmio (ICP-MS)	RF-00000150-CHE	Cadmium (Cd)
Crómio (ICP-MS)	RF-00000152-CHE	Chromium (Cr)
Aflatoxina M1	RF-00000155-TOX	Aflatoxin M1
Patulina	RF-00000157-TOX	Patulin
Ferro	RF-00000164-CHE	Iron (Fe)
Cobre	RF-00000167-CHE	Copper (Cu)
Mercúrio	RF-00000170-CHE	Total mercury
Chumbo	RF-00000174-CHE	Lead (Pb)
Manganês	RF-00000176-CHE	Manganese (Mn)
Níquel (ICP-MS)	RF-00000182-CHE	Nickel (Ni)
Selénio (ICP-MS)	RF-00000184-CHE	Selenium (Se)
Zinco	RF-00000205-CHE	Zink (Zn)
Aflatoxina (B1, B2, G1 e G2)	RF-00000435-TOX	Aflatoxin (sum of B1, B2, G1, G2)

Table 61: Controlled Terminology - Matrix from INSA

INSA - Food Groups	FoodEx1	FoodEx2		FoodEx2_Reporting Hierarchy_07/01/2015	
Produtos lácteos	A.01.000948	A02LR	Milk and dairy products	A0BXZ	Milk and milk products (dairy)
Carne e produtos cárneos	A.01.000727	A01QR	Meat and meat products	A0E2S	Mammals and birds meat and products thereof
Pescado e derivados	A.01.000876	A026T	Fish, seafood, amphibians, reptiles	A0EZR+A0EZQ	Fish meat and products thereof+Seafood and products thereof
Ovos e ovoprodutos	A.01.001252	A031E	Eggs and egg products	A031E	Eggs and egg products
Leguminosas e derivados	A.01.000486	A011X	Legumes, nuts, oilseeds and spices	A0EZG	Legume seeds and primary derivatives thereof
Cereais e derivados	A.01.000001	A000J	Grains and grain-based products	A0EZF	Cereal grains and similar and primary derivatives thereof
Frutos e derivados	A.01.000544	A01BS	Fruit and fruit products	A0E2N	Fruit and primary derivatives thereof
Produtos hortícolas e derivados	A.01.000317	A00FJ	Vegetables and vegetable products	A07XJ	Garden vegetables and primary derivatives thereof
Azeite, óleos e gorduras	A.01.001346	A036N#F02.A068M	Vegetable fats and oils, edible	A0F3D	Animal and vegetable fats/oils and derivatives thereof
Açúcar, produtos açucarados e mel	A.01.001267	A04PA	Sugar and other sweetening ingredients	A0BY6	Sugars and similar
Cacau e derivados	A.01.000418	A0C6B	Cocoa RPC derivatives	A04PE	Confectionery including chocolate
Sobremesas	A.01.001877	A04PD	Sweet desserts	A0C68	Spoonable desserts and ice creams
Bebidas não alcoólicas	A.01.001470	A0BX7	Non alcoholic beverage composites	A0F0J	Water, water-based beverages and related ingredients
Sopas	A.01.001856	A041K	Soups and salads	A041K	Soups and salads
Molhos	A.01.001684	A04QL	Sauces	A043V	Savoury sauces
Alimentos compostos	A.01.001789	A0BAG	Composite food	A03VA	Composite dishes
Adoçante	A.01.001280	A046M#F02.A06CC	Artificial sweeteners (e.g., aspartam,	A046M	Artificial sweeteners (e.g., aspartam, saccharine)

In order to maximize the future automation of the data collecting system, mapping tables (already submitted to EFSA with the Document D2 – Data Standardization: the encoding and mapping strategy developed and used) between the controlled vocabularies used in the entities mentioned above and the controlled vocabularies used in the SSD2 system were made. These mapping tables will be included in the software developed, and DGAV will be responsible for their maintenance. This will allow the country to continue using and updating the terminologies employed on each data source and match them to the EFSA controlled terminology values.

3.5. Data collection, collation and mapping to SSD2

For the sampling period to which the project relates (2014), information on more than 65 000 analytical determinations was collected.

The information available in each data sources extracted directly from their electronic systems was not sufficient to complete all the mandatory fields requested by EFSA or to be mapped directly to EFSA's SSD2; therefore, it was necessary to request additional information and to perform several

transformations to the original data. The extension of the transformations and missing information varied according to the data source.

In annex I we show all the specific transformation made in the data of each data domain, to accomplish all EFSA requested information, necessary to fulfill SSD2 fields.

The linkage between “sample collection files” and “results files” was made using the IT tool described in chapter 3.6. After the linkage a human readable EXCEL file in SSD2 format was produced and validated by the experts of each data domain, considering coherence and specific business rules. Subsequently, data was coded to SSD2 catalogues and the XML was produced to be transmitted through DCF.

3.6. IT tool to manage sample and results files for the XML file production

As it was referred in the sub-section 2.2.2 Software Tools of the ‘Methods and Materials’ section, some tools were developed in order to help the Technical members, that report the data, meet the deadline and to avoid the manual operations and transformation (raw information to SSD2 language and codes) that were to be executed in case of such tools did not exist. Also referred in the Software Tools sub-section, the developed software had to be created in a short time; as such an agile methodology of development took place having only as main requirements the basic modules to produce a XML file based on the Excel files received from the several sources.

This tool was developed specifically for this data transmission; it was only a small portion of the main module that is being developed for the PT.ON.DATA platform. Just to reinstate what was mentioned previously, the tool was only developed in the same amount of time available since the main SSD2 solution for Portugal was still in development and not ready to be use.

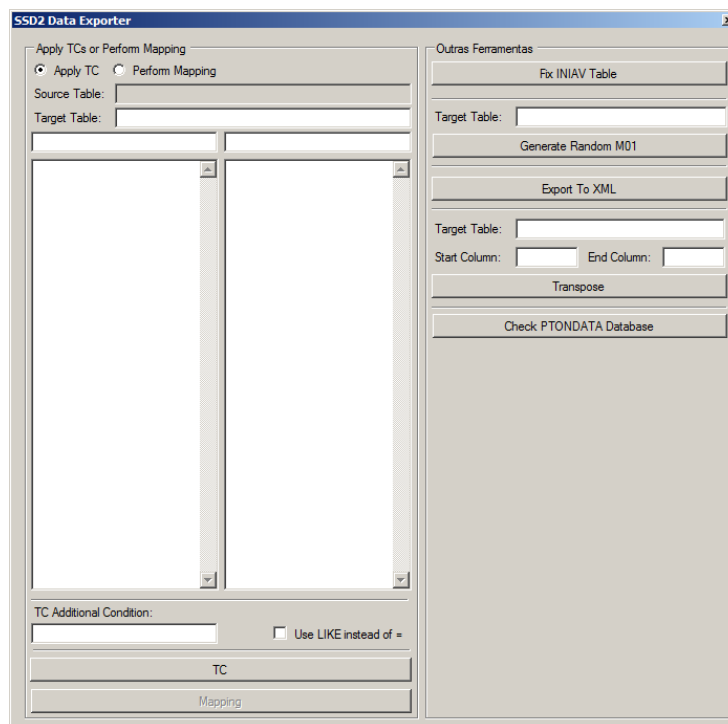


Figure 2: Software developed for the D4 data report (Main Screen)

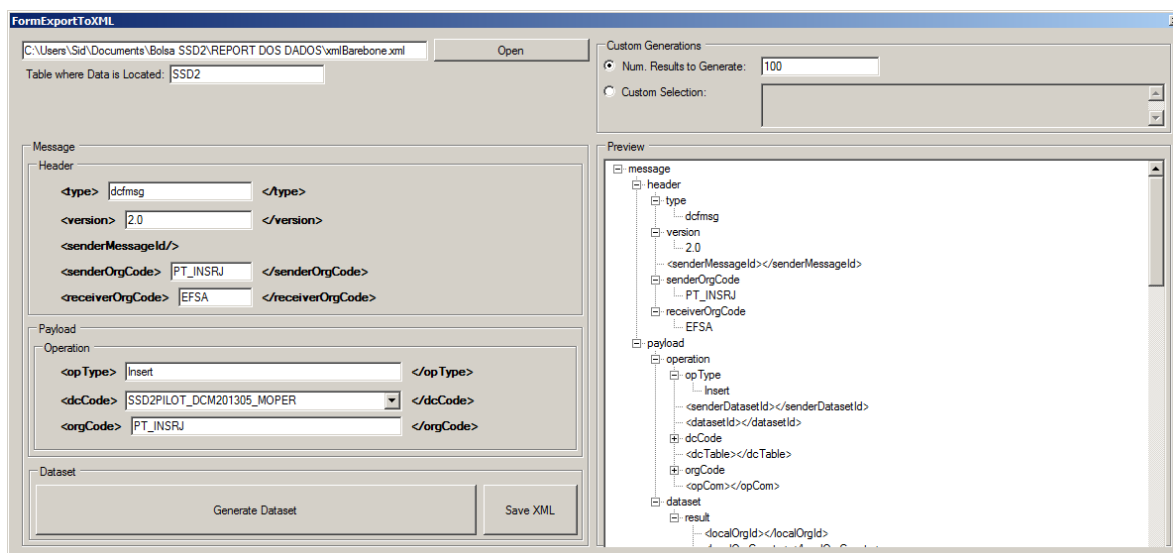


Figure 3: Software developed for the D4 data report (Export XML screen)

The SSD2 Data Export tool shown in the picture 2 and 3 has implemented multiple functionalities that were suggested to be created by the Technical members of team once they realized that most data did not followed a common layout and structure for the data to be manipulated before the SSD2 transformations could take place. As such, functionalities like table transposition, specific checks on the information in order to identify missing data, data mapping, and employment of Translation Tables (TC in Portuguese), are present in this tool.

3.7. PT.ON.DATA2

The national database, PT.ON.DATA for SSD1, is in development, their modules and functionalities will be upgraded in order to extend to all the domains now covered by the new version of the standard (SSD2). This new process of expanding the existing system is a huge and delicate task which involves others tools developed since the start of the project. Despite PT.ON.DATA 1 for SSD1 only covered the Chemical Contaminants and the Food Additives domain we think that as an advantage to use and improve existing functionalities that were common in both versions of the standard (Data Upload, Data Mapping, Business Rules check, Data Transformation to XML) and expand the existing project rather than start a new database project.

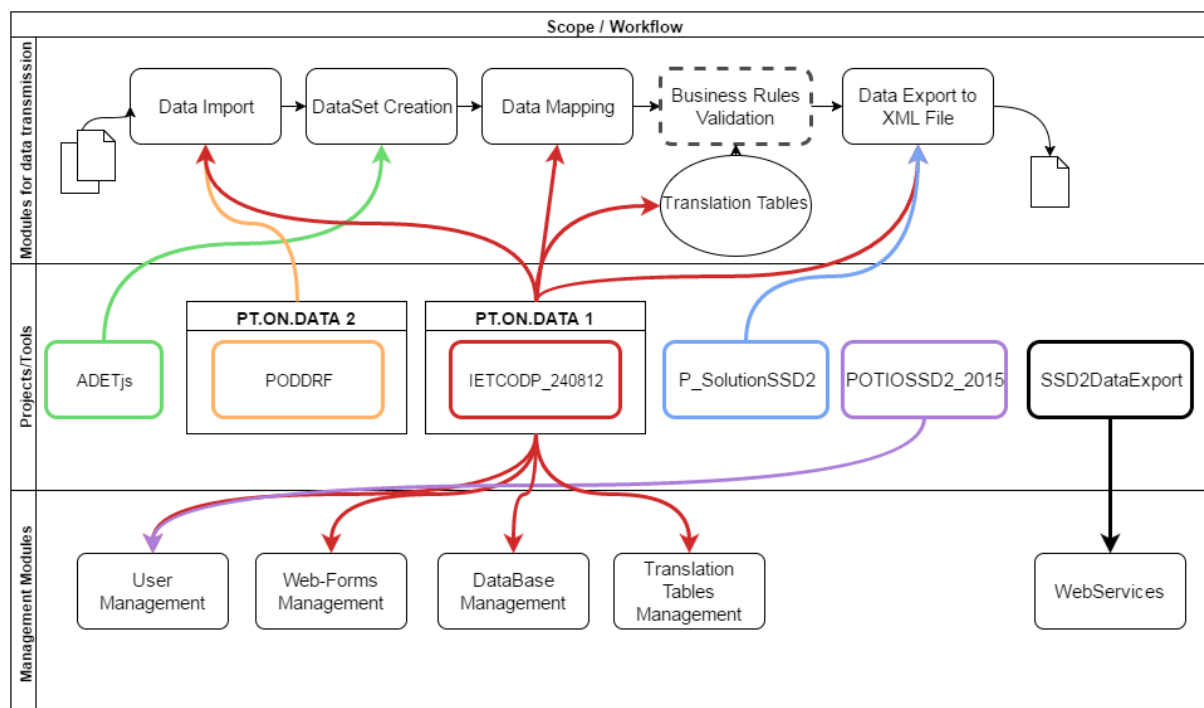


Figure 4: Top level diagram displaying developed tools to date in and how are being reused to develop PT.ON.DATA 2

The diagram above (figure 4) shows all the developed tools and projects that will help expand the PT.ON.DATA 1 platform to the SSD2. All modules in the first row of the diagram are still being implemented, the others that not make part of the first project are being planned and designed to be created by the ITs.

4. Conclusions

There are some technical issues for us to complete our mapping to the SSD2. Some of them are outlined in the bullet points below:

- The different organizations involved in the official controls have their own databases and some of the fields are populated with controlled vocabulary, the most difficult was to collect all the controlled terminologies and do the mapping to the SSD2 terms.
- In the beginning of the project in Portugal only the chemical contaminants and food additives data were already compiled in the national database "alimentos PT.ON.DATA", pesticide residues were collected in Access files and transformed in SSD1, and for biological monitoring data no national data base exists resulting in a lack of harmonization and a big dispersion of data, which made the annual reporting to EFSA a highly laborious process.
- Since different ministries are involved in the several national control plans, sometimes it was necessary to overcome some administrative barriers to obtain the necessary data.

- The Biological Monitoring domain was the most difficult to map since some of the fields and catalogues was new and some of the information required was not available in the databases of this domain due to the existence of aggregated data that must be individualized in the SSD2 schema.
- We identified some fields with no controlled vocabularies so we received a large amount of data that had to be subjected to technical screening and its subsequent correspondence to the SSD2 system.
- The delay on the final requirements agreement by data domain resulting in the “Harmonised specific requirements for SSD2” hindered the implementation of the project.
- The coding of samples according to FoodEx2 is the most time consuming task and a solution to make the process automated keeping adequate sample information detail was not found yet. It would be important to invest in this field in a near future.
- The fact that DCF only identifies a specific number of errors in each run makes the submission and validation process very time consuming.
- EFSA should provide a pre-validation tool with all DCF business rules in order to permit that each country can pre-validate their own data before the DCF data submission. This tool would probably reduce the time consuming for the validation process in DCF.

There are several specific issues that have to be overcome to the implementation of the SSD2 model in the different Data Domains in Portugal.

The biggest problem to be solved is to improve the data quality in order to facilitate their treatment, all technicians involved in the process should be aware of the importance of quality of data collected.

Since it will not be possible to implement the same controlled languages in all institutions that carry out the official control plans it will be important that the existing languages can be reviewed and standardized, if created new terms they should approach to the EFSA terms.

The implementation of SSD2 will be easier in the areas Chemical Contaminants, Food Additives and Pesticides Residues since SSD1 was already implemented in these domains. Biological Monitoring will require a bigger effort it is more complex, all the standardization work done so far has to be consolidated, some of the information required was not available in the databases of this domain due to the existence of aggregated data.

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<http://www.efsa.europa.eu/en/efsajournal/pub/3424.htm>

Standard Sample Description ver. 2.0 EXCEL documents. At
<http://www.efsa.europa.eu/en/efsajournal/pub/3424.htm>

National controlled terminologies and data formats

Abbreviations

ASAE	Autoridade de Segurança Alimentar e Económica/Food Safety and Economic Authority
CA	Autoridade Competente/ Competent Authority
CAA	Controlo da Alimentação Animal/ Animal Feed Control
DGAV	Direção Geral Alimentar e Veterinária/ General Directorate of Food and Veterinary Affairs
INIAV	Instituto Nacional de Investigação Agrária e Veterinária/ National Agrarian and Veterinary Research Institute
INSA	Instituto Nacional de Saúde Dr. Ricardo Jorge/ The National Health Institute Doutor Ricardo Jorge
IPMA	Instituto Português do Mar e da Atmosfera/ Portuguese Sea and Atmosphere Institute
LRSV	Laboratório Regional de Sanidade Vegetal / Regional Plant Health Laboratory
LRVSA	Laboratório Regional de Veterinária e Segurança Alimentar / Regional Veterinary and Food Safety Laboratory
PIGA	Plano de Inspeção dos Géneros Alimentícios/ Inspection Plan for Foodstuffs
PNCA	Plano Nacional de Colheita de Amostras/ National Plan of Sample Collection
PNCS	Plano Nacional de Controlo de <i>Salmonellas</i> / National Plan of <i>Salmonella</i> Control
PNPR	Plano Nacional de Pesquisa de Resíduos/ National Residue Monitorin Plan
NAUTILUS	Sistema Informático Laboratorial/ Laboratory Information System
SIPACE	Sistema de Informação do Plano de Aprovação e Controlo dos Estabelecimentos/ Informatic System to support the Approval and Establishments Control Plan
SIGALIS	Sistema Informático para a Gestão de Análises e Serviços/ Informatic System for Analysis Management and Services

Annex A – Changes made in the original data files for the 2014 data transmission on all report

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1. ASAE - Biological Monitoring domain

	A	W	X	Y	Z	AA	AB	AC
2	Código da Amostra	Tipo de Análise	Deter. 1	Resultado Analítico	Unidade	Deter. 2	Resultado Analítico	Unidade
1689	0435A3051C1	Análises microbiológicas	Listeria monocytogenes	$1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^2$	ufc/g			
1690	0221A2232L1	Análises microbiológicas	DNA	porco/leitão/galinha/Peru/galin	NA			
1691	0222A2232L1	Análises Físico-químicas	Dióxido Enxofre	28	mg/kg			
1692	0223A2232L1	Análises microbiológicas	Salmonella pesquiza	Neg	25g	Listeria monocytogenes	$<1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^1$	ufc/g
1693	0224A2232L1	Análises microbiológicas	Salmonella pesquiza	Neg	25g	Listeria monocytogenes	$<1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^1$	ufc/g
1694	0225A2232L1	Análises microbiológicas	Salmonella pesquiza	Neg	25g	Listeria monocytogenes	$<1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^1$	ufc/g
1695	0226A2232L1	Análises microbiológicas	DNA	Peru/galinha - NEG	NA			
1696	0227A2232L1	Análises microbiológicas	DNA	porco/leitão/galinha/Peru/galin	NA			
1697	0438A3051C1	Análises microbiológicas	Listeria monocytogenes	$1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^2$	ufc/g			
1698	0439A3051C1	Análises microbiológicas	Listeria monocytogenes	$1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^2$	ufc/g			
1699	0230A2232L1	Análises Físico-químicas	Dióxido Enxofre	<10	mg/kg			
1700	0343A3097C1	Análises Físico-químicas	Ocratoxina A	$<0,5$	µg/Kg			
1701	0344A3097C1	Análises Físico-químicas	Ocratoxina A	$<0,5$	µg/Kg			
1702	0345A3097C1	Análises Físico-químicas	Ocratoxina A	$<0,5$	µg/Kg			
1703	0346A3097C1	Análises Físico-químicas	Ocratoxina A	$<0,5$	µg/Kg			
1704	0347A3097C1	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1705	0348A3097C1	Análises Físico-químicas	Aflatoxinas	0	µg/Kg			
1706	0350A3097C1	Análises Físico-químicas	Ocratoxina A	$<1,5$	µg/Kg			
1707	0351A3097C1	Análises Físico-químicas	Ocratoxina A	$<0,5$	µg/Kg			
1708	0352A3097C1	Análises Físico-químicas	Ocratoxina A	$<0,5$	µg/Kg			
1709	0355A3097C1	Análises Físico-químicas	Ocratoxina A	$<0,5$	µg/Kg			
1710	0358A3097C1	Análises Físico-químicas	Benzol(a)pireno	$<0,2$	µg/Kg	Benzol(a)traceno	$<0,7$	µg/Kg
1711	0359A3097C1	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1712	0360A3097C1	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1713	0361A3097C1	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1714	0362A3097C1	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1715	0363A3097C1	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1716	0364A3097C1	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1717	0365A3097C1	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1718	0366A3097C1	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1719	0367A3097C1	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1720	0368A3097C1	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1721	0369A3097C1	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1722	0370A3097C1	Análises Físico-químicas	Aflatoxinas	0	µg/Kg	Zearalenona	$<5,0$	µg/Kg
1723	0375A3097C1	Análises Físico-químicas	Aflatoxinas	0	µg/Kg	Zearalenona	$<16,3$	µg/Kg
1724	0440A3051C1	Análises microbiológicas	Listeria monocytogenes	$1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^2$	ufc/g			
1725	0441A3051C1	Análises microbiológicas	Listeria monocytogenes	$1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^2$	ufc/g			
1726	0442A3051C1	Análises microbiológicas	Listeria monocytogenes	$1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^2$	ufc/g			
1727	0022A3070L1	Análises microbiológicas	Listeria monocytogenes	$1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^2$	ufc/g			
1728	0023A3070L1	Análises microbiológicas	Listeria monocytogenes	$1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^2$	ufc/g			
1729	0024A3070L1	Análises microbiológicas	Listeria monocytogenes	$1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^2$	ufc/g			
1730	0025A3070L1	Análises microbiológicas	Listeria monocytogenes	$1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^2$	ufc/g			
1731	0026A3070L1	Análises microbiológicas	Listeria monocytogenes	$1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^2$	ufc/g			
1732	0028A3070L1	Análises microbiológicas	Listeria monocytogenes	$1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^2$	ufc/g			
1733	0030A3070L1	Análises microbiológicas	Listeria monocytogenes	$1,0 \times 10^1$; $<1,0 \times 10^1$; $<1,0 \times 10^2$	ufc/g	Salmonella pesquiza	Neg	25g
1734	0443A3051C1	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1735	0444A3051C1	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1736	0445A3051C1	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1737	0168A3030L1	Análises Físico-químicas	ácido sórbico	<8	mg/L	ácido benzoico	<8	mg/L
1738	0169A3030L1	Análises Físico-químicas	ácido sórbico	<8	mg/L	ácido benzoico	<8	mg/L
1739	0160A3030L1	Análises Físico-químicas	ácido sórbico	<8	mg/L	ácido benzoico	<8	mg/L

Figure 5: Original data received from GESTASAE

Procedure #1

ASAE (Biological monitoring domain)

In the column "Tipo de análise" filter/select all the analyzes that are not called "Microbiological analysis" and delete these lines (leaving only the lines for the microbiological testing - Figure 2).

Pilot project on the implementation of SSD2

	A	B	X	Y	Z	AA	AB	AC
	Código da Amostra	Tipo de Análise	Deter. 1	Resultado Analítico	Unidade	Deter. 2	Resultado Analítico	Unidade
1689	0435A3051C1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1690	0221A2232L1	Análises microbiológicas	DNA	porco/leitão/Javali/Perú/galin	NA			
1692	0228A2232L1	Análises microbiológicas	Salmonella pesouisa	Neg	25g	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g
1693	0224A2232L1	Análises microbiológicas	Salmonella pesouisa	Neg	25g	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g
1694	0235A2232L1	Análises microbiológicas	Salmonella pesouisa	Neg	25g	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g
1695	0226A2232L1	Análises microbiológicas	DNA	Perú/galinha - NEG	NA			
1696	0227A2232L1	Análises microbiológicas	DNA	porco/leitão/Javali/Perú/galin	NA			
1697	0438A3051C1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1698	0439A3051C1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1724	0440A3051C1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1725	0441A3051C1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1726	0442A3051C1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1727	0022A3070L1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1728	0023A3070L1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1729	0024A3070L1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1730	0025A3070L1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1731	0026A3070L1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1732	0028A3070L1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1733	0030A3070L1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	Salmonella pesouisa	Neg	25g
1750	0135A3182L1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1751	0136A3182L1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1752	0137A3182L1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1753	0138A3182L1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1754	0140A3182L1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1756	0142A3182L1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1758	0282A3202P1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1759	0022A3070L1	Análises microbiológicas	Salmonella pesouisa	Neg	25g	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g
1760	0033A3070L1	Análises microbiológicas	Salmonella pesouisa	Neg	25g	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g
1761	0034A3070L1	Análises microbiológicas	Salmonella pesouisa	Neg	25g	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g
1762	0283A3202P1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1763	0284A3202P1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1764	0285A3202P1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1765	0286A3202P1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1767	0273A2242L1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1769	0274A2242L1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g			
1783	0245A2232L1	Análises microbiológicas	DNA	Cavalo/perú/galinha - NEG	NA			
1784	0246A2232L1	Análises microbiológicas	DNA	Cavalo/perú/galinha - NEG	NA			
1785	0247A2232L1	Análises microbiológicas	DNA	porco/leitão/Javali/Perú/galin	NA			
1792	0274A3202P1	Análises microbiológicas	DNA	porco/leitão/Javali/Perú/galin	NA			
1793	0275A3202P1	Análises microbiológicas	DNA	porco/leitão/Javali/Perú/galin	NA			
1794	0276A3202P1	Análises microbiológicas	DNA	Cavalo - NEG	NA			
1795	0277A3202P1	Análises microbiológicas	DNA	porco/leitão/Javali/Perú/galin	NA			
1796	0278A3202P1	Análises microbiológicas	DNA	porco/leitão/Javali/Perú/galin	NA			
1797	0279A3202P1	Análises microbiológicas	DNA	porco/leitão/Javali/Perú/galin	NA			
1798	0280A3202P1	Análises microbiológicas	DNA	porco/leitão/Javali/Perú/galin	NA			
1799	0281A3202P1	Análises microbiológicas	DNA	porco/leitão/Javali/Perú/galin	NA			
1800	0276A2242L1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	Salmonella pesouisa	Neg	25g
1801	0277A2242L1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	Salmonella pesouisa	Neg	25g
1802	0278A2242L1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	Salmonella pesouisa	Neg	25g
1803	0279A2242L1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	Salmonella pesouisa	Neg	25g
1804	0280A2242L1	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	Salmonella pesouisa	Neg	25g

Figure 6: File with "Microbiological Analysis"

Procedure #2

ASAE (Biological monitoring domain)

Transform from columns to rows all the determinations of the same sample, leaving only the Column "Determinação 1" and appropriate result and unit - Figure 3a.

Procedure #3

ASAE (Biological monitoring domain)

Filter/select in the column "Determinação 1" all parameters not to report and eliminate the lines.

A	W	X	Y	Z	AA	AB	AC
Código da Amostra	Tipo de Análise	Deter. 1	Resultado Analítico	Unidade	Deter. 2	Resultado Analítico	Unidade
0004A2242E14	Análises microbiológicas	Salmonela pesquisa	Neg	25g			
0005A2242E14	Análises microbiológicas	Salmonela pesquisa	Neg	10g			
0006A2242E14	Análises microbiológicas	Salmonela pesquisa	Neg	10g			
0007A2242E14	Análises microbiológicas	Salmonela pesquisa	Neg	25g			
0092A2242L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
0093A2242L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
0047A3030L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
0068A2232F14	Análises microbiológicas	E.Coli	68	NMP/100g			
0153A3030E14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g	Salmonela pesquisa	Neg	25g
0146A2232L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g			
0147A2232L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g			
0001A2703L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
0205A2232S14	Análises microbiológicas	Salmonela pesquisa	Neg	25g	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
0016A3030L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g	Salmonela pesquisa	Neg	25g
0063A2242L14	Análises microbiológicas	Salmonela pesquisa	Neg	10g			
0064A2242L14	Análises microbiológicas	Salmonela pesquisa	Neg	10g			
0031A3182L14	Análises microbiológicas	Salmonela pesquisa	Neg	10g			
0032A3182L14	Análises microbiológicas	Salmonela pesquisa	Neg	10g			
0065A2242L14	Análises microbiológicas	E.Coli	20	NMP/100g			
0100A2232L14	Análises microbiológicas	Salmonela pesquisa	Neg	10g			
0083A2242L14	Análises microbiológicas	E.Coli	20	NMP/100g			
0084A2242L14	Análises microbiológicas	E.Coli	130	NMP/100g			
0092A3030L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g			
0092A3030L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
0089A3030L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
0089A3030L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g			
0090A3030L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
0090A3030L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g			
0108A3182L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
0109A3182L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
0140A2242L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g			
0141A2242L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g			
0157A2242L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
0157A2242L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g			
0158A2242L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
0159A2242L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
0160A2242L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
0170A2242L14	Análises microbiológicas	E.Coli	5400	NMP/100g			
0171A2242L14	Análises microbiológicas	E.Coli	0	NMP/100g			

Figure 7: Determinations in different columns

Código da Amostra	Tipo de Análise	Deter. 1	Resultado Analítico	Unidade
0004A2242E14	Análises microbiológicas	Salmonela pesquisa	Neg	25g
0005A2242E14	Análises microbiológicas	Salmonela pesquisa	Neg	10g
0006A2242E14	Análises microbiológicas	Salmonela pesquisa	Neg	10g
0007A2242E14	Análises microbiológicas	Salmonela pesquisa	Neg	25g
0092A2242L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g
0092A2242L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
0093A2242L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g
0093A2242L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
0047A3030L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
0068A2232F14	Análises microbiológicas	E.Coli	68	NMP/100g
0153A3030E14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
0153A3030E14	Análises microbiológicas	Salmonela pesquisa	Neg	25g
0146A2232L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g
0147A2232L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g
0001A2703L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g
0001A2703L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
0001A2703L14	Análises microbiológicas	E.Coli	1,0x10 ² ; 2,0x10 ² ; 1,0x10 ² ; 4,2x10 ² ; 2,5x10 ²	ufc/g
0205A2232S14	Análises microbiológicas	Salmonela pesquisa	Neg	25g
0205A2232S14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
0016A3030L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
0016A3030L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g
0016A3030L14	Análises microbiológicas	E.Coli	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
0063A2242L14	Análises microbiológicas	Salmonela pesquisa	Neg	10g
0064A2242L14	Análises microbiológicas	Salmonela pesquisa	Neg	10g
0031A3182L14	Análises microbiológicas	Salmonela pesquisa	Neg	10g
0032A3182L14	Análises microbiológicas	Salmonela pesquisa	Neg	10g
0065A2242L14	Análises microbiológicas	E.Coli	20	NMP/100g
0100A2232L14	Análises microbiológicas	Salmonela pesquisa	Neg	10g
0083A2242L14	Análises microbiológicas	E.Coli	20	NMP/100g
0084A2242L14	Análises microbiológicas	E.Coli	130	NMP/100g
0092A3030L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g
0092A3030L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
0089A3030L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
0089A3030L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g
0090A3030L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
0090A3030L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g
0108A3182L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
0109A3182L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
0140A2242L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g
0141A2242L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g
0157A2242L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
0157A2242L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g
0158A2242L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
0159A2242L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
0160A2242L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
0170A2242L14	Análises microbiológicas	E.Coli	5400	NMP/100g
0171A2242L14	Análises microbiológicas	E.Coli	0	NMP/100g

Figure 8: Determinations in different lines

Procedure #4

ASAE (Biological monitoring domain)

Make correspondence between the column "Código da Amostra" and "N.º de boletim" of the GESTASAE file, and columns "Código Origem" and "Nr. Amostra" from the analytical data file (Labway) - Figure 4, confirm the correspondence found also by the parameter and the result obtained.

Important: It is necessary to match always these four elements.

A	X	Y	Z	AK
Código da Amostra	Deter. 1	Resultado Analítico	Unidade	N.º de boletim
0004A224E14	Salmonella pesquisa	Neg	25g	1400241 a 1400245
0005A224E14	Salmonella pesquisa	Neg	10g	1400236 a 1400240
0006A224E14	Salmonella pesquisa	Neg	10g	1400231 a 1400235
0007A224E14	Salmonella pesquisa	Neg	25g	1400226 a 1400230
0092A224E14	Salmonella pesquisa	Neg	25g	1403645 a 1403649
0092A224E14	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	1403645 a 1403649
0093A224E14	Salmonella pesquisa	Neg	25g	1403640 a 1403644
0093A224E14	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	1403640 a 1403644
0017A3030L14	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	1402921 a 1402925
0088A233F14	E.Coli	88	NMP/100g	1402871
0153A3030E14	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	1407260 a 1407264
0153A3030E14	Salmonella pesquisa	Neg	25g	1407260 a 1407264
0146A223Z14	Salmonella pesquisa	Neg	25g	1405250 a 1405254
0147A223Z14	Salmonella pesquisa	Neg	25g	1405255 a 1405259
0001A2703L14	Salmonella pesquisa	Neg	25g	1405069 a 1405073
0001A2703L14	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	1405069 a 1405073
0001A2703L14	E.Coli	1,0x10 ² a 2,0x10 ² a 1,0x10 ² a 2,0x10 ² a 2,5x10 ²	ufc/g	1405069 a 1405073
0209A223Z14	Salmonella pesquisa	Neg	25g	1406826 a 1406830
0209A223Z14	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	1406826 a 1406830
0016A3030L14	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	1401230 a 1401234
0016A3030L14	Salmonella pesquisa	Neg	25g	1401230 a 1401234
0016A3030L14	E.Coli	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	1401230 a 1401234
0063A224L14	Salmonella pesquisa	Neg	10g	1402485 a 1402489
0064A224L14	Salmonella pesquisa	Neg	10g	1402480 a 1402484
0031A318Z14	Salmonella pesquisa	Neg	10g	1402491 a 1402495
0032A318Z14	Salmonella pesquisa	Neg	10g	1402496 a 1402500
0065A224L14	E.Coli	20	NMP/100g	1402518
0100A223Z14	Salmonella pesquisa	Neg	10g	1403211 a 1403216
0083A224L14	E.Coli	20	NMP/100g	1403417
0084A224L14	E.Coli	130	NMP/100g	1403418
0092A3030L14	Salmonella pesquisa	Neg	25g	1404783 a 1404787
0092A3030L14	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	1404783 a 1404787
0089A3030L14	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	1404778 a 1404782
0089A3030L14	Salmonella pesquisa	Neg	25g	1404778 a 1404782
0090A3030L14	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	1404773 a 1404777
0090A3030L14	Salmonella pesquisa	Neg	25g	1404773 a 1404777
0108A318Z14	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	1405824 a 1405828
0109A318Z14	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	1405818 a 1405822
0140A224E14	Salmonella pesquisa	Neg	25g	1405135 a 1405137
0141A224E14	Salmonella pesquisa	Neg	25g	1405138 a 1405142
0157A224E14	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	1405421 a 1405425
0157A224E14	Salmonella pesquisa	Neg	25g	1405421 a 1405425
0158A224E14	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	1405436 a 1405440
0159A224E14	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	1405431 a 1405435
0160A224E14	Listeria monocytogenes	<1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹ <1,0x10 ¹	ufc/g	1405426 a 1405430
0170A224E14	E.Coli	5400	NMP/100g	1405548
0171A224E14	E.Coli	0	NMP/100g	1405548

Figure 9: Matching columns between GESTASAE file (left) with the received data file of Labway ASAE (right)

Note

Filter/Select in the column "Parâmetro" "Escherichia coli count" and delete these lines (it will be reported only results for Escherichia coli O157 and VTEC).

The reporting data from biological monitoring was for two PRV and AMR models for all salmonella in which research/detection was positive, it was asked to the competent authority its serotype and antimicrobial resistance. It was just carried out the serotyping, and the information was sent. ASAE only had information on the PRV model.

2. ASAE Food additives domain

A	W	X	Y	Z	AA	AB	AC
Código da Amostra	Tipo de Análise	Deter. 1	Resultado Analítico	Unidade	Deter. 2	Resultado Analítico	Unidade
1689 0435A3051C14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
1690 0221A2232L14	Análises microbiológicas	DNA	porco/leitão/javali/Peru/galin	NA			
1691 0222A2232L14	Análises Físico-químicas	Dióxido Eniofre	28	mg/kg			
1692 0223A2232L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
1693 0224A2232L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
1694 0225A2232L14	Análises microbiológicas	Salmonela pesquisa	Neg	25g	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g
1695 0226A2232L14	Análises microbiológicas	DNA	Peru/galinha - NEG	NA			
1696 0227A2232L14	Análises microbiológicas	DNA	porco/leitão/javali/Peru/galin	NA			
1697 0438A3051C14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
1698 0439A3051C14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
1699 0230A2232L14	Análises Físico-químicas	Dióxido Eniofre	<10	mg/kg			
1700 0343A3097C14	Análises Físico-químicas	Ocratoxina A	<0,5	µg/kg			
1701 0344A3097C14	Análises Físico-químicas	Ocratoxina A	<0,5	µg/kg			
1702 0345A3097C14	Análises Físico-químicas	Ocratoxina A	<0,5	µg/kg			
1703 0346A3097C14	Análises Físico-químicas	Ocratoxina A	<0,5	µg/kg			
1704 0347A3097C14	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1705 0348A3097C14	Análises físico-químicas	Ocratoxina A	0	µg/kg			
1706 0350A3097C14	Análises físico-químicas	Ocratoxina A	<1,5	µg/kg			
1707 0351A3097C14	Análises físico-químicas	Ocratoxina A	<0,5	µg/kg			
1708 0352A3097C14	Análises físico-químicas	Ocratoxina A	<0,5	µg/kg			
1709 0355A3097C14	Análises físico-químicas	Ocratoxina A	<0,5	µg/kg			
1710 0358A3097C14	Análises físico-químicas	Benzol(a)pireno	<0,2	µg/kg	Benzol(a)traceno	<0,7	µg/kg
1711 0359A3097C14	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1712 0360A3097C14	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1713 0361A3097C14	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1714 0362A3097C14	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1715 0363A3097C14	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1716 0364A3097C14	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1717 0365A3097C14	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1718 0366A3097C14	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1719 0367A3097C14	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1720 0368A3097C14	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1721 0369A3097C14	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1722 0370A3097C14	Análises Físico-químicas	Aflatoxinas	0	µg/kg	Zearalenona	<5,0	µg/kg
1723 0375A3097C14	Análises Físico-químicas	Aflatoxinas	0	µg/kg	Zearalenona	<16,3	µg/kg
1724 0440A3051C14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
1725 0441A3051C14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
1726 0442A3051C14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
1727 0022A3070L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
1728 0023A3070L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
1729 0024A3070L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
1730 0025A3070L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
1731 0026A3070L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
1732 0028A3070L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g			
1733 0030A3070L14	Análises microbiológicas	Listeria monocytogenes	<1,0x10 ¹ ; <1,0x10 ¹ ; <1,0x10 ¹	ufc/g	Salmonela pesquisa	Neg	25g
1734 0443A3051C14	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1735 0444A3051C14	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1736 0445A3051C14	Análises físico-químicas e sensoriais	Análises físico-químicas e sensoriais					
1737 0158A3030L14	Análises Físico-químicas	ácido sórbico	<8	mg/L	ácido benzóico	<8	mg/l
1738 0159A3030L14	Análises Físico-químicas	ácido sórbico	<8	mg/L	ácido benzóico	<8	mg/l
1739 0160A3030L14	Análises Físico-químicas	ácido sórbico	<8	mg/L	ácido benzóico	<8	mg/l

Figure 10: Original data received from GESTASAE

Procedure #1

ASAE (Food additives domain)

In column "Tipo de análise" filter/select all the analyses that are not called "Análises físico-químicas" and "Análises físico-químicas e sensoriais" and delete these lines (leaving only the lines for specified analysis).

W	X	Y	Z	AA	AB	AC
Tipo de Análise	Deter. 1	Resultado Analítico	Unidade	Deter. 2	Resultado Analítico	Unidade
Análises Físico-químicas	Dióxido Enxofre	178	mg/Kg			
Análises Físico-químicas	Dióxido Enxofre	<10	mg/Kg			
Análises Físico-químicas	Dióxido Enxofre	<10	mg/Kg			
Análises Físico-químicas	Dióxido Enxofre	<10	mg/Kg			
Análises Físico-químicas	Acessulfame	5,6x10 ⁻²	mg/Kg	Sacarina	<10	mg/Kg
Análises Físico-químicas	Dióxido Enxofre	<10	mg/Kg			
Análises Físico-químicas	Dióxido Enxofre	<10	mg/Kg			
Análises Físico-químicas	ácido sórbico	2,2x10 ⁻³	mg/l	ácido benzóico	1,3x10 ⁻²	mg/l
Análises Físico-químicas	ácido sórbico	<8	mg/l	ácido benzóico	<8	mg/l
Análises Físico-químicas	ácido sórbico	<8	mg/l	ácido benzóico	<8	mg/l
Análises Físico-químicas	ácido sórbico	<8	mg/l	ácido benzóico	1,2x10 ⁻²	mg/l
Análises Físico-químicas	Acessulfame	3,0x10 ⁻²	mg/Kg	Sacarina	<10	mg/Kg
Análises Físico-químicas	Acessulfame	57	mg/Kg	Sacarina	<1	mg/Kg
Análises Físico-químicas	Acessulfame	<1	mg/Kg	Sacarina	<1	mg/Kg
Análises Físico-químicas	Cafeína	<5	mg/L			
Análises Físico-químicas	Cafeína	1,0x10 ⁻²	mg/L			
Análises físico-químicas e sensoriais	ácido sórbico	<8	mg/l	ácido benzóico	<8	mg/l
Análises Físico-químicas	ácido sórbico	<8	mg/L	ácido benzóico	<8	mg/L
Análises Físico-químicas	ácido sórbico	<8	mg/l	ácido benzóico	<8	mg/l
Análises Físico-químicas	Cafeína	19	mg/L			
Análises Físico-químicas	Cafeína	18	mg/L			
Análises Físico-químicas	Cafeína	75	mg/L			
Análises Físico-químicas	ácido sórbico	<8	mg/l	ácido benzóico	<8	mg/l
Análises Físico-químicas	Cafeína	<5	mg/L			
Análises Físico-químicas	Dióxido Enxofre	<10	mg/kg			
Análises Físico-químicas	Dióxido Enxofre	<10	mg/kg			
Análises Físico-químicas	Dióxido Enxofre	<10	mg/kg			
Análises Físico-químicas	ácido sórbico	<8	mg/kg	Acessulfame	<5	mg/kg
Análises Físico-químicas	ácido sórbico	<8	mg/kg	Acessulfame	<5	mg/kg
Análises Físico-químicas	ácido sórbico	<8	mg/kg	Acessulfame	<5	mg/kg
Análises Físico-químicas	ácido sórbico	<8	mg/kg	Acessulfame	<5	mg/kg
Análises Físico-químicas	Cloretos	28,6	%(M/M)			
Análises Físico-químicas	Dióxido Enxofre	511	mg/kg			
Análises Físico-químicas	ácido sórbico	6,4x10 ⁻²	mg/kg	Acessulfame	<5	mg/kg
Análises Físico-químicas	ácido sórbico	<8	mg/kg	Acessulfame	<5	mg/kg
Análises Físico-químicas	ácido sórbico	<8	mg/kg	Acessulfame	<5	mg/kg
Análises Físico-químicas	ácido sórbico	<8	mg/kg	Acessulfame	<5	mg/kg
Análises Físico-químicas	ácido sórbico	<8	mg/kg	Acessulfame	<5	mg/kg

Figure 11: File with only "Análises físico-químicas" e "Análises físico-químicas e sensoriais"

Procedure #2

ASAE (Food additives domain)

Select the different additives to report in the different columns called "Determinação 1, 2, 3, ..." and eliminate those that are not additive. The list of additives to report is in the "Technical offer".

Procedure #3

ASAE (Food additives domain)

Make the correspondence between the "Código da Amostra" column and "N.º de boletim" of GESTASAE file - Figure 7;

And the columns "Código Origem" and "Nr. Amostra" from the analytical data file (Labway) - Figure 8, it is necessary to confirm if the correspondence between the parameter and the result obtained are correct. It is necessary to match always these four elements.

	A	W	X	Y	Z	AW	AX	Ni P: Té
	Código da Amostra	Tipo de Análise	Deter. 1	Resultado Analítico	Unidade	N.º de boletim	Apreciação Técnica	
1								
2	0003A3051C14	Análises Físico-químicas	Dióxido Enxofre	178	mg/Kg	1400139	Conforme	
3	0004A3051C14	Análises Físico-químicas	Dióxido Enxofre	<10	mg/Kg	1400138	Conforme	
4	0004A3097C14	Análises Físico-químicas	Dióxido Enxofre	<10	mg/Kg	1400136	Conforme	
5	0005A3097C14	Análises Físico-químicas	Dióxido Enxofre	<10	mg/Kg	1400137	Conforme	
6	0001A3131F14	Análises Físico-químicas	Acessulfame	5,8x10 ⁻²	mg/Kg	1400347	Conforme	
7	0009A3051C14	Análises Físico-químicas	Dióxido Enxofre	<10	mg/Kg	1400140	Conforme	
8	0006A3097C14	Análises Físico-químicas	Dióxido Enxofre	<10	mg/Kg	1400135	Conforme	
9	0012A3070L14	Análises Físico-químicas	ácido sórbico	2,2x10 ⁻³	mg/l	1400216 e 1400217	Conforme	
10	0400A3097C13	Análises Físico-químicas	ácido sórbico	<8	mg/l	1400488 e 1400491	Conforme	
11	0401A3097C13	Análises Físico-químicas	ácido sórbico	<8	mg/l	1400487 e 1400490	Conforme	
12	0402A3097C13	Análises Físico-químicas	ácido sórbico	<8	mg/l	1400489 e 1400492	Conforme	
13	0016A2232L14	Análises Físico-químicas	Acessulfame	3,0x10 ⁻²	mg/Kg	1400434	Conforme	
14	0021A3051C14	Análises Físico-químicas	Acessulfame	57	mg/Kg	1400478	Conforme	
15	0020A3097C14	Análises Físico-químicas	Acessulfame	<1	mg/Kg	1400477	Conforme	
16	0017A3131F14	Análises Físico-químicas	Cafeína	<5	mg/L	1400114	Conforme	
17	0030A2232L14	Análises Físico-químicas	Cafeína	1,0x10 ⁻²	mg/L	1401052	Conforme	
18	0024A3030F14	Análises físico-químicas e sensoriais	ácido sórbico	<8	mg/l	1402032 e 1402033	Conforme	
19	0062A2242L14	Análises Físico-químicas	ácido sórbico	<8	mg/L	1402490	Não conforme	20
20	0121A3097C14	Análises Físico-químicas	ácido sórbico	<8	mg/l	1402578	Conforme	
21	0126A3097C14	Análises Físico-químicas	Cafeína	19	mg/L	1402683	Conforme	
22	0127A3097C14	Análises Físico-químicas	Cafeína	18	mg/L	1402684	Conforme	
23	0136A3051C14	Análises Físico-químicas	Cafeína	75	mg/L	1402801	Conforme	
24	0140A3097C14	Análises Físico-químicas	ácido sórbico	<8	mg/l	1402800	Conforme	
25	0141A3097C14	Análises Físico-químicas	Cafeína	<5	mg/L	1402802	Conforme	
26	0143A3051C14	Análises Físico-químicas	Dióxido Enxofre	<10	mg/Kg	1403120	Conforme	
27	0144A3051C14	Análises Físico-químicas	Dióxido Enxofre	<10	mg/Kg	1403118	Conforme	
28	0148A3097C14	Análises Físico-químicas	Dióxido Enxofre	<10	mg/Kg	1403119	Conforme	
29	0081A3202P14	Análises Físico-químicas	ácido sórbico	<8	mg/Kg	1403180	Conforme	
30	0082A3202P14	Análises Físico-químicas	ácido sórbico	<8	mg/Kg	1403184	Conforme	
31	0083A3202P14	Análises Físico-químicas	ácido sórbico	<8	mg/Kg	1403179	Conforme	
32	0084A3202P14	Análises Físico-químicas	ácido sórbico	<8	mg/Kg	1403182	Conforme	
33	0147A3051C14	Análises Físico-químicas	Cloretos	28,6	µg(M/M)	1402961	Conforme	
34	0150A3097C14	Análises Físico-químicas	Dióxido Enxofre	511	mg/Kg	1403121	Conforme	
35	0086A3202P14	Análises Físico-químicas	ácido sórbico	6,4x10 ⁻²	mg/Kg	1403178	Conforme	
36	0087A3202P14	Análises Físico-químicas	ácido sórbico	<8	mg/Kg	1403177	Conforme	
37	0088A3202P14	Análises Físico-químicas	ácido sórbico	<8	mg/Kg	1403176	Conforme	
38	0089A3202P14	Análises Físico-químicas	ácido sórbico	<8	mg/Kg	1403185	Conforme	
39	0090A3202P14	Análises Físico-químicas	ácido sórbico	<8	mg/Kg	1403183	Conforme	

Figure 12: GESTASAE file with selected columns matched with Labway file

	A	B	C	D	E	F	J	K	L
	Nr. Amostra	Código Origem	Contro	Cliente	Data Colheita	Área	Desc. Amostra	Parâmetro	Acr
2	1407915	0180A3050S14	PNCA	ASAE URS - Unidade Reg	14-11-2014	ASAE SUL	100% Sumo de Laranja Natural	Ácido Benzóico (LFQ_líquidos)	S
3	1407916	0178A3030S14	PNCA	ASAE URS - Unidade Reg	14-11-2014	ASAE SUL	100% Sumo de Laranja com Polp	Ácido Benzóico (LFQ_líquidos)	S
4	1407917	0179A3030S14	PNCA	ASAE URS - Unidade Reg	14-11-2014	ASAE SUL	100% Sumo de Uva	Ácido Benzóico (LFQ_líquidos)	S
5	1407865	0253A2232E14	PNCA	ASAE URS - Unidade Reg	13-11-2014	ASAE SUL	Sumo de laranja natural	Ácido Benzóico (LFQ_líquidos)	S
6	1407866	0176A3030L14	PNCA	ASAE URS - Unidade Reg	12-11-2014	ASAE SUL	Só laranja - Sumo 100% natural	Ácido Benzóico (LFQ_líquidos)	S
7	1407867	0174A3030L14	PNCA	ASAE URS - Unidade Reg	12-11-2014	ASAE SUL	Sumo natural espremido (100%)	Ácido Benzóico (LFQ_líquidos)	S
8	1407670	0243A2232L14	PNCA	ASAE URS - Unidade Reg	11-11-2014	ASAE SUL	100% de Sumo de Laranja	Ácido Benzóico (LFQ_líquidos)	S
9	1407503	0158A3030L14	PNCA	ASAE URS - Unidade Reg	04-11-2014	ASAE SUL	Uva	Ácido Benzóico (LFQ_líquidos)	S
10	1407504	0160A3030L14	PNCA	ASAE URS - Unidade Reg	04-11-2014	ASAE SUL	Laranja vermelha	Ácido Benzóico (LFQ_líquidos)	S
11	1407505	0159A3030L14	PNCA	ASAE URS - Unidade Reg	04-11-2014	ASAE SUL	Laranja c/ Polpa	Ácido Benzóico (LFQ_líquidos)	S
12	1407502	0232A2232F14	PNCA	ASAE URS - Unidade Reg	03-11-2014	ASAE SUL	100% de laranja	Ácido Benzóico (LFQ_líquidos)	S
13	1407506	0231A2232F14	PNCA	ASAE URS - Unidade Reg	03-11-2014	ASAE SUL	Nectar de Pera	Ácido Benzóico (LFQ_líquidos)	S
14	1407415	0471A3051C14	PNCA	ASAE URC - Unidade Reg	29-10-2014	ASAE CENTRO	Swiss Style Muesli	Nitratos (exp. em nitrato de s N	
15	1407458	0474A3051C14	PNCA	ASAE URC - Unidade Reg	29-10-2014	ASAE CENTRO	Estrelitas de mel c/ cereais integ	Nitratos (exp. em nitrato de s N	
16	1407057	0134A3182L14	PNCA	ASAE URS - Unidade Reg	30-09-2014	ASAE SUL	de Manga e Banana	Ácido Benzóico (LFQ_líquidos)	S
17	1407058	0133A3182L14	PNCA	ASAE URS - Unidade Reg	30-09-2014	ASAE SUL	100% Sumo de Laranja espremit	Ácido Benzóico (LFQ_líquidos)	S
18	1407054	0206A2242L14	PNCA	ASAE URS - Unidade Reg	29-09-2014	ASAE SUL	de maçã espremido 100%	Ácido Benzóico (LFQ_líquidos)	S
19	1407055	0207A2242L14	PNCA	ASAE URS - Unidade Reg	29-09-2014	ASAE SUL	Beterrabas vermelhas 100%	Ácido Benzóico (LFQ_líquidos)	S
20	1407056	0208A2242L14	PNCA	ASAE URS - Unidade Reg	29-09-2014	ASAE SUL	de Laranja vermelha pasteurizat	Ácido Benzóico (LFQ_líquidos)	S
21	1403175	0091A3202P14	PNCA	ASAE URN - Unidade Re	09-05-2014	ASAE NORTE	de Tomate	Ácido Benzóico (LFQ_sólidos)	S
22	1403175	0091A3202P14	PNCA	ASAE URN - Unidade Re	09-05-2014	ASAE NORTE	de Tomate	Clamatos (LFQ_sólidos)	N
23	1403175	0091A3202P14	PNCA	ASAE URN - Unidade Re	09-05-2014	ASAE NORTE	de Tomate	Acessulfamo (LFQ_sólidos)	S
24	1403175	0091A3202P14	PNCA	ASAE URN - Unidade Re	09-05-2014	ASAE NORTE	de Tomate	Aspartamo (LFQ_sólidos)	S
25	1403175	0091A3202P14	PNCA	ASAE URN - Unidade Re	09-05-2014	ASAE NORTE	de Tomate	Sacarina (LFQ_sólidos)	S
26	1403176	0088A3202P14	PNCA	ASAE URN - Unidade Re	09-05-2014	ASAE NORTE	de Abóbora	Ácido Benzóico (LFQ_sólidos)	S
27	1403176	0088A3202P14	PNCA	ASAE URN - Unidade Re	09-05-2014	ASAE NORTE	de Abóbora	Clamatos (LFQ_sólidos)	N

Figure 13: Data received from LABWAY ASAE

Note

After the correlation between the files belonging to collection and the analytical results, it was noted that file "ASAE_EFSA_Aditivos_2014_LBPV_20151029" (one of result files for the reporting) have many results without correspondence with the collection file.

With the verification of "Código de Amostra" and "Código Origem" between "Nº de Boletim" and "Nr. Amostra" in the original data file it was been found that there was results no matching in the collection file, and were excluded in the first operation as in the column "Determinação 1" have the value "Análises físico-químicas e sensoriais" or is not satisfied. The lines belonging to the results were added to the collection file being worked.

It is important to note this, because without discriminated parameters we cannot know witch domain belongs the sample in the initial analysis. And there is also no later way of comparison with the laboratory results to verify that the parameter analyzed is the same parameter for the analysis that was required.

! **Important:** Note the differences/samples with missing information both on the part of GESTASAE either the Labway.

Once it appears that there is correspondence between the "Código de Amostra" and "Código Origem" but the "Nº de Boletim" and "Nr. Amostra" are not compatible (and the parameter is also correct), there are two ways to solve the problem:

- 1) The "Nº de Boletim" in GESTASAE data are between intervals (there are performed more than one analysis to the same parameter of a sample); when in the GESTASAE file is missing one bulletin number in a range data and exists in the "Nº de Amostra" and all the other elements are correct, we changed/added the "nº de Boletim" at the GESTASAE data;
- 2) If "Nº de Boletim" and "Nr. Amostra" are completely different to the same sample or is repeated for different samples, we need to ask the Competent Authority which is the correct number reports of that data range.

When the correspondence between the "Nº de Boletim" and "Nr. Amostra" are correct and only one letter or number shows the difference between the "Código de Amostra" and "Código Origem", we have to change the "Código Origem" based on the "Código de Amostra". When is a more significant difference, ask the Competent Authority.

Ask the Competent Authority when (in addition to the two situations mentioned above):

- - There is no correspondence between "Código de Amostra" and "Código Origem" and vice versa, which indicates a lack of information;
- - When there is a match between "Código de Amostra" and "Código Origem" and also "Nº de Boletim" and "Nr. Amostra" but there are parameters that does not match or are not the same parameters in both files.

3. PNCS / INIAV

Note

The operations performed on the data for the PNCS plan (broilers, turkeys, laying hens and flocks of breeding) were quite similar. So, we use the operations performed on the “broilers” data as example, since it applies to the other data (turkeys, chickens, etc.).

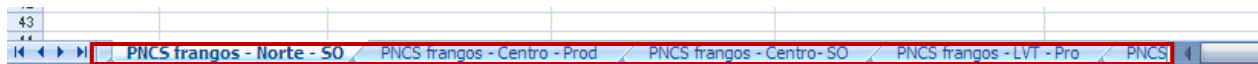


Figure 14: Data file received concerning to the broiler plan



Figure 15: Data file received concerning to the Turkeys plan

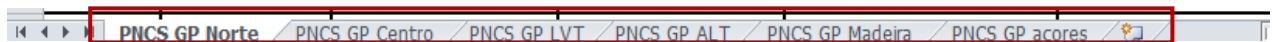


Figure 16: Data file received concerning to the laying hens plan

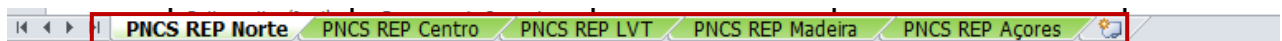


Figure 17: Data file received concerning to the breeding flock plan

In the data received from the PCNS broilers there are two sheets for each region (1 for the autocontrol and other for the official control). Data received from the PNCS of Turkeys, Laying Hens and breeding flocks are only in one sheet by region (auto control and official control together on the same sheet by region).

dia	Laboratório deteção	Nº análise Lab	Tipo de amostra	Tipo de amostra	Método deteção	Referência amostras	Resultado da deteção	Laboratório serotipificação	Nº análise INIAV	Método de serotipificação	Resultado serotipificação
7	Controlvet	D257	amostra ambiental	Botas para esfregação	anexo D de norma EN/ISO 6579 (2002)	3475113001P2-07-01	Positivo	INIAV	Pat-14-01224	Kauffmann-White-Le Minor	S.Havana
7	Controlvet	D258	amostra ambiental	Botas para esfregação	anexo D de norma EN/ISO 6579 (2002)	3475113001P3-07-01	Positivo	INIAV	Pat-14-01225	Kauffmann-White-Le Minor	S.Havana
21	Controlvet	D2427	amostra ambiental	Botas para esfregação	anexo D de norma EN/ISO 6579 (2002)	297061400112-21-02	Positivo	INIAV	Pat-14-05149	Kauffmann-White-Le Minor	S.Havana
22	Controlvet	D5517	amostra ambiental	Botas para esfregação	anexo D de norma EN/ISO 6579 (2002)	JMLA.03.04.2014 P1-00-01	Positivo	INIAV	Pat-14-10746	Kauffmann-White-Le Minor	S.Rissen
9	Controlvet	D6193	amostra ambiental	Botas para esfregação	anexo D de norma EN/ISO 6579 (2002)	3/14-09-05	positivo	INIAV	Pat-14-12002	Kauffmann-White-Le Minor	S.Newport

Figure 18: Collection data file with positive results

The collection PCNS data file have a different structure because it presents the results of the detection of Salmonella (positive and negative), the column "Resultado da deteção". For reporting data belonging to the PRV model, the received data collection files have all the necessary information.

Procedure #1

PCNS / INIAV

When the result of detection was "negative", the day of analysis corresponded to the day of collection plus 3 days. When the result of detection had a "positive" value, the analysis day is extract from the respective correspondence in INIAV file.

3.1. For the reporting of data belonging to the AMR model

Procedure #2

PCNS / INIAV

When the "resultado da deteção" is positive, the following columns are filled "Laboratório serotipificação" "Nº análise INIAV", "Método de serotipificação" and "Resultado serotipificação" as presented below (red rectangles).

Procedure #3

PCNS / INIAV

With the columns mentioned above fulfilled, and using a copy of the results file sent by INIAV, the match is made between "Nº análise INIAV" and "Resultado serotipificação" with "Amostra" and "Resultado – identificação" respectively. This correlation is valid for the reported data from chickens and turkeys.

Note

When there is no match or non-existence of "Nº análise INIAV" with "Amostra" or vice versa,

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Amostra	Plano	Proveniência	Tipo mate	Tipo animal	Matriz	Resultado - identificação	Antibiótico	Pe. Dif.
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	Trimetoprim (CIM)	= < 1
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	**Tigeciclina (CIM)	1.
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	Tetraciclina (CIM)	= < 1
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	Sulfametozazole (CIM)	321
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	**Meropenem (CIM)	= < 1
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	Gentamicina (CIM)	= < 1
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	**Colistina (CIM)	= < 1
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	Cloranfenicol (CIM)	= < 1
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	Ciprofloxacina (CIM)	0.5
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	**Ceftazidima (CIM)	= < 1
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	Cefotaxima (CIM)	= < 1
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	**Azitromicina (CIM)	4.0
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	Ampicilina (CIM)	= < 1
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	Ácido nalidixico (CIM)	16.0
PAT-14-01225/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	Trimetoprim (CIM)	= < 1
PAT-14-01225/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	**Tigeciclina (CIM)	1.
PAT-14-01225/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	Tetraciclina (CIM)	= < 1
PAT-14-01225/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	Sulfametozazole (CIM)	321
PAT-14-01225/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	**Meropenem (CIM)	= < 1
PAT-14-01225/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	Gentamicina (CIM)	= < 1
PAT-14-01225/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	**Colistina (CIM)	= < 1
PAT-14-01225/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	Cloranfenicol (CIM)	= < 1
PAT-14-01225/DB/001	Salmonella-Autocontrolo	Fezes	Ambiente	Frango	Zaragoas-botas	Salmonella Havana	Ciprofloxacina (CIM)	0.0

Figure 20: Resulting file with the changes made

Amostra	Plano	Tipo ani	Matriz	Teste	Resultado - Identificação	Antibiótico	CIM e Dif. Vacuam	Data isolamen	Data autorizaçã	cutoff	lowest	highest
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	Trimetoprim (CIM)	= < 0.25 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	2	0.25	52
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	**Tigeciclina (CIM)	1. mg/l Resistente	13-01-2014 0:00	22-05-2014 11:5	1	0.25	8
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	Tetraciclina (CIM)	= < 2 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	8	2	64
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	Sulfametozazole (CIM)	32.0 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	256	8	1024
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	**Meropenem (CIM)	= < 0.03 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	0.125	0.03	16
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	Gentamicina (CIM)	= < 0.5 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	2	0.5	32
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	**Colistina (CIM)	= < 1 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	2	1	16
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	Cloranfenicol (CIM)	= < 8 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	16	8	128
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	Ciprofloxacina (CIM)	0.5 mg/l Resistente	13-01-2014 0:00	22-05-2014 11:5	0.06	0.015	8
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	**Ceftazidima (CIM)	= < 0.5 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	2	0.5	8
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	Cefotaxima (CIM)	= < 0.25 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	0.5	0.25	4
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	**Azitromicina (CIM)	4.0 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	16	2	64
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	Ampicilina (CIM)	= < 1 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	8	1	64
PAT-14-01224/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	Ácido nalidixico (CIM)	16.0 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	16	4	128
PAT-14-01225/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	Trimetoprim (CIM)	= < 0.25 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	2	0.25	32
PAT-14-01225/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	**Tigeciclina (CIM)	1. mg/l Resistente	13-01-2014 0:00	22-05-2014 11:5	1	0.25	8
PAT-14-01225/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	Tetraciclina (CIM)	= < 2 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	8	2	64
PAT-14-01225/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	Sulfametozazole (CIM)	32.0 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	256	8	1024
PAT-14-01225/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	**Meropenem (CIM)	= < 0.03 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	0.125	0.03	16
PAT-14-01225/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	Gentamicina (CIM)	= < 0.5 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	2	0.5	32
PAT-14-01225/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	**Colistina (CIM)	= < 1 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	2	1	16
PAT-14-01225/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	Cloranfenicol (CIM)	= < 8 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	16	8	128
PAT-14-01225/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	Ciprofloxacina (CIM)	0.03 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	0.06	0.015	8
PAT-14-01225/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	**Ceftazidima (CIM)	= < 0.5 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	2	0.5	8
PAT-14-01225/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	Cefotaxima (CIM)	= < 0.25 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	0.5	0.25	4
PAT-14-01225/DB/001	Salmonella-Autocontrolo	Frango	Zaragoas-botas	PE-007-PSA/EM (2014-02-03)	Salmonella Havana	**Azitromicina (CIM)	4.0 mg/l Sensível	13-01-2014 0:00	22-05-2014 11:5	16	2	64

Figure 21: Columns added to the data file

Procedure #5

PNCS / INIAV

In Fig. 21 are presented 3 columns added to the data file containing mandatory information for SSD2 model that were taken in the file "2014_ZOO_FACT_AMR_ISOLATE_AST_DYN_SALMONELLA" sent by DGAV. This file corresponds to the data reported in 2014 related to AMR for Salmonella.

resu	tCo	zoonosis	mat	totUnitsTeste	totUnitsP	siti	labIsolCode	substance	cutoffVal	lowe	he	lic
PT2	14/INI4	Salmonella Enteritidis	Feed material of cereal grain origin			PAT-14-122	SA	Trimethoprim	2	0,25	32	0,5
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Nalidixic acid	16	4	128	16
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Ampicillin	8	1	64	≤1
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Azithromycin	16	2	64	4
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Cefotaxime	0,5	0,25	4	≤0,25
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Ceftazidim	2	0,5	8	≤0,5
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Ciprofloxacin	0,06	0,015	8	0,5
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Chloramphenicol	16	8	128	≤8
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Colistin	2	1	16	≤1
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Gentamicin	2	0,5	32	≤0,5
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Meropenem	0,125	0,03	16	≤0,03
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Sulphamethoxazole	256	8	1024	32
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Tetracycline	8	2	64	≤2
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Tigecycline	1	0,25	8	1
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Trimethoprim	2	0,25	32	≤0,25
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Nalidixic acid	16	4	128	≤4
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Ampicillin	8	1	64	≤1
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Azithromycin	16	2	64	4
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Cefotaxime	0,5	0,25	4	≤0,25
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Ceftazidim	2	0,5	8	≤0,5
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Ciprofloxacin	0,06	0,015	8	0,03
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Chloramphenicol	16	8	128	≤8
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Colistin	2	1	16	≤1
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Gentamicin	2	0,5	32	≤0,5
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Meropenem	0,125	0,03	16	≤0,03
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Sulphamethoxazole	256	8	1024	32
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Tetracycline	8	2	64	≤2
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Tigecycline	1	0,25	8	1
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-122	SA	Trimethoprim	2	0,25	32	≤0,25
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-184	SA	Nalidixic acid	16	4	128	16
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-184	SA	Ampicillin	8	1	64	≤1
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-184	SA	Azithromycin	16	2	64	8
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-184	SA	Cefotaxime	0,5	0,25	4	≤0,25
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-184	SA	Ceftazidim	2	0,5	8	≤0,5
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-184	SA	Ciprofloxacin	0,06	0,015	8	0,5
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-184	SA	Chloramphenicol	16	8	128	≤8
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-184	SA	Colistin	2	1	16	≤1
PT2	14/INI4	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-184	SA	Gentamicin	2	0,5	32	≤0,5

Figure 22: File reported with 2014 positive Salmonella data

Procedure #6

PNCS / INIAV

The correspondence between this file and the INIAV data file is performed between the column "labIsolCode" and "Amostra", confirming also if the column "zoonosis" is the microorganism in the "Resultado – Identificação" column.

Procedure #7

PNCS / INIAV

There have been cases where the file INIAV column "Resultado CIM and Dif Vac/campo" had a different value for a given antibiotic that "MIC" column in the reported data file. The value in INIAV file was changed to the present value in the reported data file.

Note

In INIAV data files the column "Sensível" or "Resistente" is not completed for all antibiotics. This was completed using the following criteria:

- When the value of the column "Resultado CIM e Dif Vac/campo" is equal or below the cut-off, "cutoffValue" sensible result;
- When the value of the column "Resultado CIM e Dif Vac/campo" is greater than the cut-off, "cutoffValue", resistant result.

4. PIGA Biological monitoring

4.1. PIGA/INIAV

Note

The data relating to PIGA plan presents information on the PRV and AMR model. First will be explained the changes to the PRV model and then AMR.

Important: It should be noted that changes made in the collection file was been performed only once and are valid for both models.

Sld	DataColheita	CodigoAmostra	Parametro	TipoProdutoNivel1	TipoProdu	TipoProdutoNive	TipoProdutoN	FaseCadeia	Unidades	Labora	NumBolet	AgenteOuSerc	Resultado	Quantificacao
24410	01-04-2014	PIGA1004010420141	Brucella spp (PIGA leite)	Leite de Ovelha	Cru			Produção	Unitário	NIAV	14-00059		Negativo	
24410	01-04-2014	PIGA1004010420141	Contagem de placas a 30°C	Leite de Ovelha	Cru			Produção	Unitário	NIAV	14-00059		(em bran	610000
24411	01-04-2014	PIGA1004010420142	Brucella spp (PIGA leite)	Leite de Cabra	Cru			Produção	Unitário	NIAV	14-00058		Negativo	
24411	01-04-2014	PIGA1004010420142	Contagem de placas a 30°C	Leite de Cabra	Cru			Produção	Unitário	NIAV	14-00058		(em bran	800000
24481	08-04-2014	PIGA1001080420145	Campylobacter	Carne de Frango (Gal)	Carcaça	Carcaça	Refrigerado	Produção	Unitário	NIAV	14-00078		Negativo	
24481	08-04-2014	PIGA1001080420145	Salmonella	Carne de Frango (Gal)	Carcaça	Carcaça	Refrigerado	Produção	Unitário	NIAV	14-00078		Negativo	
24488	08-04-2014	PIGA1001080420148	Campylobacter	Carne de Suíno	Fresca	Refrigerada		Produção	Unitário	NIAV	14-00076		Negativo	
24488	08-04-2014	PIGA1001080420148	Salmonella	Carne de Suíno	Fresca	Refrigerada		Produção	Unitário	NIAV	14-00076		Negativo	
24489	08-04-2014	PIGA1001080420149	Campylobacter	Carne de Ovíno	Fresca	Refrigerada		Produção	Unitário	NIAV	14-00077		Negativo	
24489	08-04-2014	PIGA1001080420149	Salmonella	Carne de Ovíno	Fresca	Refrigerada		Produção	Unitário	NIAV	14-00077		Negativo	
24490	08-04-2014	PIGA10010804201410	Campylobacter	Carne de Caprino	Fresca	Refrigerada		Produção	Unitário	NIAV	14-00075		Negativo	
24490	08-04-2014	PIGA10010804201410	Salmonella	Carne de Caprino	Fresca	Refrigerada		Produção	Unitário	NIAV	14-00075		Negativo	
24492	08-04-2014	PIGA1001080420147	Listeria	Carne de Suíno	Produtos à	Cru e destinado a	Refrigerado	Produção	Unitário	NIAV	14-00079		Negativo	
24492	08-04-2014	PIGA1001080420147	Salmonella	Carne de Suíno	Produtos à	Cru e destinado a	Refrigerado	Produção	Unitário	NIAV	14-00079		Negativo	
24493	08-04-2014	PIGA1001080420146	Campylobacter	Carne de Suíno	Carcaça	Refrigerada		Produção	Unitário	NIAV	14-00063		Negativo	
24493	08-04-2014	PIGA1001080420146	Salmonella	Carne de Suíno	Carcaça	Refrigerada		Produção	Unitário	NIAV	14-00063		Negativo	
24494	08-04-2014	PIGA10010804201411	Campylobacter	Carne de Suíno	Carcaça	Refrigerada		Produção	Unitário	NIAV	14-00074		Negativo	
24494	08-04-2014	PIGA10010804201411	Salmonella	Carne de Suíno	Carcaça	Refrigerada		Produção	Unitário	NIAV	14-00074		Negativo	
24510	08-04-2014	PIGA03030804201400	Enterotoxinas estafilocócicas	Queijos de Leite Ovel	Pasta mole	Feitos com leite c	Cur a inferior	Produção	Lote	NIAV	14-00070		Negativo	
24510	08-04-2014	PIGA03030804201400	Listeria	Queijos de Leite Ovel	Pasta mole	Feitos com leite c	Cur a inferior	Produção	Lote	NIAV	14-00070		Negativo	
24510	08-04-2014	PIGA03030804201400	Salmonella	Queijos de Leite Ovel	Pasta mole	Feitos com leite c	Cur a inferior	Produção	Lote	NIAV	14-00070		Negativo	
24511	08-04-2014	PIGA03030804201400	Brucella spp (PIGA)	Queijos de Leite Ovel	Queijo fres			Produção	Lote	NIAV	14-00071		Negativo	

Figure 23: Collecting file of the 2014 PIGA plan withdrawn from SIPACE

Procedure #1

PIGA (Biological monitoring): PIGA/INIAV

Filter in the column marked "Laboratório", the samples corresponding to INIAV laboratory because when the EFSA report was made there were only laboratory results of this.

Procedure #2

PIGA (Monitorização Biológica): PIGA/INIAV

Filter in the "Parametro" Somatic Cell Count and Count plates at 30°C and eliminate the lines corresponding to these parameters only getting the parameters to report.

Procedure #3

PIGA (Biological monitoring): PIGA/INIAV

With the analysis of data it was noted that many samples did not show the column "FaseCadeia" filled, was requested to competent authority this information.

The analytical results file sent by INIAV has two sheets, "Listagem amostras P-HP" and "Listagem amostras PAT" which correspond, respectively, the information of the PRV and AMR model.

Amostra nº	Refª externa	Cliente	Protocolo	Matriz	Método de ensaio	Descrição do ensaio	Resultado	Data de coleta	Data de entrega
P-HP-14-00012	PIGA 04002 06012014 007	Direção Geral de Alimentação e Veterinária	PIGA	Carne fresca de suíno - Lote amostrado: 1330310401061	AFNOR BFD 07706-07704	PCR	Negativa em 25g	06-01-2014	07-01-2014
P-HP-14-00013	PIGA 04002 06012014 007	Direção Geral de Alimentação e Veterinária	PIGA	Carne fresca de suíno - Lote amostrado: 1330310401061	ISO 10272-1:2006	Pesquisa de Campylobacter spp.	Negativa em 1g	06-01-2014	07-01-2014
P-HP-14-00014	PIGA 04002 06012014 018	Direção Geral de Alimentação e Veterinária	PIGA	Carne picada de bovino - Lote amostrado 13405721401061	AFNOR BFD 07706-07704	PCR	Negativa em 25g	06-01-2014	07-01-2014
P-HP-14-00015	PIGA 04002 06012014 018	Direção Geral de Alimentação e Veterinária	PIGA	Carne picada de bovino - Lote amostrado 13405721401061	ISO 10272-1:2006	Pesquisa de Campylobacter spp.	Negativa em 1g	06-01-2014	07-01-2014
P-HP-14-00016	PIGA 04002 06012014 018	Direção Geral de Alimentação e Veterinária	PIGA	Carne picada de bovino - Lote amostrado 13405721401061	AFNOR BFD 12108-07709	Deteção de Escherichia coli O157.p	Negativa em 25g	06-01-2014	07-01-2014
P-HP-14-00017	PIGA 04002 06012014 022	Direção Geral de Alimentação e Veterinária	PIGA	Carne picada de suíno - Lote amostrado 1330510401061	AFNOR BFD 07706-07704	PCR	Negativa em 25g	06-01-2014	07-01-2014
P-HP-14-00018	PIGA 04002 06012014 022	Direção Geral de Alimentação e Veterinária	PIGA	Carne picada de suíno - Lote amostrado 1330510401061	ISO 10272-1:2006	Pesquisa de Campylobacter spp.	Negativa em 1g	06-01-2014	07-01-2014
P-HP-14-00019	PIGA 04002 06012014 022	Direção Geral de Alimentação e Veterinária	PIGA	Carne picada de suíno - Lote amostrado 1330510401061	AFNOR BFD 12108-07709	Deteção de Escherichia coli O157.p	Negativa em 25g	06-01-2014	07-01-2014
P-HP-14-00058	PIGA 1004 01-04-2014 2 - Lote amostrado: 1042014	Direção Geral de Alimentação e Veterinária	PIGA	Leite cru (peq Ru) - Selo DGAV Nº 00009793	PE-015-BAC-DB-P	Pesquisa de Brucella	Não se isolou Bruc	01-04-2014	02-04-2014
P-HP-14-00059	PIGA 1004 01-04-2014 2 - Lote amostrado: 1042014	Direção Geral de Alimentação e Veterinária	PIGA	Leite cru (peq Ru) - Selo DGAV Nº 00009793	ENISO 4833:2003	Contagem de microrganismos a 30°C	8.0 x 10 ⁴ UFC/ml	01-04-2014	02-04-2014
P-HP-14-00059	PIGA 1004 01-04-2014 1 - Lote amostrado: 1042014	Direção Geral de Alimentação e Veterinária	PIGA	Leite cru (peq Ru) - Selo DGAV Nº 000018600	PE-015-BAC-DB-P	Pesquisa de Brucella	Não se isolou Bruc	01-04-2014	02-04-2014
P-HP-14-00059	PIGA 1004 01-04-2014 1 - Lote amostrado: 1042014	Direção Geral de Alimentação e Veterinária	PIGA	Leite cru (peq Ru) - Selo DGAV Nº 000018600	ENISO 4833:2003	Contagem de microrganismos a 30°C	6.1x10 ⁴ UFC/ml	01-04-2014	02-04-2014
P-HP-14-00060	PIGA 2C 02-04-2014 500	Direção Geral de Alimentação e Veterinária	PIGA	Leite cru de vaca - Lote amostrado 1	ISO 13366-2: 2006	Contagem de células somáticas	439000/ml	02-04-2014	03-04-2014
P-HP-14-00060	PIGA 2C 02-04-2014 500	Direção Geral de Alimentação e Veterinária	PIGA	Leite cru de vaca - Lote amostrado 1	ENISO 4833:2003	Contagem de microrganismos a 30°C	7.1x 10 ⁴ UFC/ml	02-04-2014	03-04-2014
P-HP-14-00061	PIGA 2C 02-04-2014 501	Direção Geral de Alimentação e Veterinária	PIGA	Leite cru de vaca - Lote amostrado 1	ISO 13366-2: 2006	Contagem de células somáticas	278000/ml	01-04-2014	03-04-2014
P-HP-14-00061	PIGA 2C 02-04-2014 501	Direção Geral de Alimentação e Veterinária	PIGA	Leite cru de vaca - Lote amostrado 1	ENISO 4833:2003	Contagem de microrganismos a 30°C	3.6 x 10 ⁴ UFC/ml	01-04-2014	03-04-2014
P-HP-14-00062	000003014	Direção Geral de Alimentação e Veterinária	PIGA	Carçaça/Carne fresca (Suíno) - Lote amostrado 098247	ISO 10272-1:2006	Pesquisa de Campylobacter spp.	Negativa em 1g	08-04-2014	09-04-2014
P-HP-14-00062	000003014	Direção Geral de Alimentação e Veterinária	PIGA	Carçaça/Carne fresca (Suíno) - Lote amostrado 098247	AFNOR BFD 07706-07704	PCR	Negativa em 25g	08-04-2014	09-04-2014
P-HP-14-00064	PIGA 1006 08-04-2014 12 - Selo DGAV nº 3102	Direção Geral de Alimentação e Veterinária	PIGA	Leite cru (Bov) - Lote amostrado único -	ISO 13366-2: 2006	Contagem de células somáticas	32000/ml	08-04-2014	08-04-2014
P-HP-14-00064	PIGA 1006 08-04-2014 12 - Selo DGAV nº 3102	Direção Geral de Alimentação e Veterinária	PIGA	Leite cru (Bov) - Lote amostrado único -	ENISO 4833:2003	Contagem de microrganismos a 30°C	1.8 x 10 ⁴ UFC/ml	08-04-2014	08-04-2014
P-HP-14-00065	PIGA 1006 08-04-2014 14 - Selo DGAV nº 3101	Direção Geral de Alimentação e Veterinária	PIGA	Leite cru (Bov) - Lote amostrado único	ISO 13366-2: 2006	Contagem de células somáticas	167000/ml	08-04-2014	08-04-2014
P-HP-14-00065	PIGA 1006 08-04-2014 14 - Selo DGAV nº 3101	Direção Geral de Alimentação e Veterinária	PIGA	Leite cru (Bov) - Lote amostrado único	ENISO 4833:2003	Contagem de microrganismos a 30°C	1.3 x 10 ⁴ UFC/ml	08-04-2014	08-04-2014
P-HP-14-00066	PIGA 1006 08-04-2014 15 - Selo DGAV nº 3104	Direção Geral de Alimentação e Veterinária	PIGA	Leite cru (Bov) - Lote amostrado único	ISO 13366-2: 2006	Contagem de células somáticas	230000/ml	08-04-2014	08-04-2014
P-HP-14-00066	PIGA 1006 08-04-2014 15 - Selo DGAV nº 3104	Direção Geral de Alimentação e Veterinária	PIGA	Leite cru (Bov) - Lote amostrado único	ENISO 4833:2003	Contagem de microrganismos a 30°C	5.7 x 10 ⁴ UFC/ml	08-04-2014	08-04-2014
P-HP-14-00067	PIGA 1006 08-04-2014 16 - Selo DGAV nº 3106	Direção Geral de Alimentação e Veterinária	PIGA	Leite cru (Bov) - Lote amostrado único	ISO 13366-2: 2006	Contagem de células somáticas	200000/ml	08-04-2014	08-04-2014
P-HP-14-00067	PIGA 1006 08-04-2014 16 - Selo DGAV nº 3106	Direção Geral de Alimentação e Veterinária	PIGA	Leite cru (Bov) - Lote amostrado único	ENISO 4833:2003	Contagem de microrganismos a 30°C	2.2 x 10 ⁴ UFC/ml	08-04-2014	08-04-2014
P-HP-14-00068	PIGA 1006 08-04-2014 17 - Selo DGAV nº 3108	Direção Geral de Alimentação e Veterinária	PIGA	Leite cru (Bov) - Lote amostrado único	ISO 13366-2: 2006	Contagem de células somáticas	1980000/ml	08-04-2014	08-04-2014
P-HP-14-00068	PIGA 1006 08-04-2014 17 - Selo DGAV nº 3108	Direção Geral de Alimentação e Veterinária	PIGA	Leite cru (Bov) - Lote amostrado único	ENISO 4833:2003	Contagem de microrganismos a 30°C	2.1x 10 ⁴ UFC/ml	08-04-2014	08-04-2014

Figure 24: Data sent by INIAV

Procedure #4

PIGA (Biological monitoring): PIGA/INIAV

For the "Listagem amostras P-HP" sheet, the connection between the sampling file from the DGAV and the analytical results file from the INIAV is carried by the columns "CodigoAmostra" and "NumBoletim" to "Refª externa" and "Amostra nº", respectively but also confirming that the "Parametro" coincides with "Descrição do ensaio"

⚙ Procedure #5

PIGA (Biological monitoring): PIGA/INIAV

When there is no correspondence between "CodigoAmostra" and "Refª externa" but there is correspondence between "NumBoletim" and "Amostra nº" and "Parametro" is also coinciding with "Descrição do ensaio" it is necessary to change the present value at the "Refª externa".

⚙ Procedure #6

PIGA (Biological monitoring): PIGA/INIAV

When there is no correspondence from "NumBoletim" and "Amostra nº" but there is a match between "CodigoAmostra" and "Refª externa" and "Parametro" is also coinciding with "Descrição do ensaio", this value is changed in " NumBoletim ".

⚙ Procedure #7

PIGA (Biological monitoring): PIGA/INIAV

When there is no match or non-existence of "CodigoAmostra" and "NumBoletim" with "Refª externa" and "Amostra nº" or vice versa, request information to the Competent Authority.

⚙ Procedure #8

PIGA (Biological monitoring): PIGA/INIAV

In order to collect all the information regarding the PRV model, was added a column "Serotipo" for when the "Resultado" of the sample was positive and also changed up the "Método de ensaio". This information was taken from the separator "Listagem amostras PAT", where the first row for each sample is the positive identification of the microorganism.

Amostra nº	Refª externa	Cliente	Protocolo	Matriz	Método de ensaio	Descrição do ensaio	Resultado	Serótipo	Data de colheita	Data de entrega	Data de conclusão	Data de autotipagem
P-HP-14-00096	PIGA 0301 14042014 053	Direção Geral de Alimentação e Veterinária	PIGA	Frango - Lote amostrado	Identificação de <i>Campylobacter</i> (PCR)		Positiva em Ig	<i>Campylobacter coli</i>	14-04-2014	15-04-2014	28-04-2014	28-04-2014
P-HP-14-00098	PIGA 0301 14042014 055	Direção Geral de Alimentação e Veterinária	PIGA	Jardineira de peixe - Lote de suíno - Caracaça - Lote	Identificação de <i>Campylobacter</i> (PCR)	FE-004-FSA/BEM(2014-02-06)	Positiva em Ig	<i>Campylobacter coli</i>	14-04-2014	15-04-2014	28-04-2014	28-04-2014
P-HP-14-00111	PIGA 2C 21-04-2014 502	Direção Geral de Alimentação e Veterinária	PIGA	base de carne de suíno	Identificação de <i>Campylobacter</i> (PCR)	SD 11930-11998/Amd12004	Positiva em 25g	<i>Salmonella</i> Flissen	21-04-2014	22-04-2014	08-05-2014	08-05-2014
P-HP-14-00113	PIGA 030121-04-14 002	Direção Geral de Alimentação e Veterinária	PIGA	Frango - Lote amostrado	Identificação de <i>Campylobacter</i> (PCR)	Deteção de <i>Listeria monocitogenes</i>	Positiva em 25g	<i>Listeria monocitogenes</i>	21-04-2014	22-04-2014	08-05-2014	08-05-2014
P-HP-14-00117	PIGA 0302 2204M 008	Direção Geral de Alimentação e Veterinária	PIGA	Frango - Lote amostrado	Identificação de <i>Campylobacter</i> (PCR)	Pesquisa de <i>Campylobacter</i> spp.	Positiva em Ig	<i>Campylobacter</i> spp.	22-04-2014	23-04-2014	06-05-2014	06-05-2014
P-HP-14-00134	PIGA 0302228944010	Direção Geral de Alimentação e Veterinária	PIGA	Frango - Lote amostrado	Identificação de <i>Campylobacter</i> (PCR)		Positiva em Ig	<i>Campylobacter coli</i>	28-04-2014	29-04-2014	09-05-2014	12-05-2014
P-HP-14-00170	PIGA 2G02 06052014 286	Direção Geral de Alimentação e Veterinária	PIGA	ovelha curado	Identificação de <i>Campylobacter</i> (PCR)	Deteção de <i>Listeria monocitogenes</i>	Positiva em 25g	<i>Listeria monocitogenes</i>	06-05-2014	07-05-2014	20-05-2014	20-05-2014
P-HP-14-00173	PIGA 2G02 06052014 289	Direção Geral de Alimentação e Veterinária	PIGA	Lote	Identificação de <i>Campylobacter</i> (PCR)	Deteção de <i>Listeria monocitogenes</i>	Positiva em 25g	<i>Listeria monocitogenes</i>	06-05-2014	07-05-2014	20-05-2014	22-05-2014
P-HP-14-00174	PIGA 0302 06052014 012	Direção Geral de Alimentação e Veterinária	PIGA	Frango - Lote amostrado	Identificação de <i>Campylobacter</i> (PCR)		Positiva em Ig	<i>Campylobacter jejuni</i>	06-05-2014	07-05-2014	16-05-2014	16-05-2014
P-HP-14-00180	PIGA 1001 06-05-2014 30	Direção Geral de Alimentação e Veterinária	PIGA	Carne fresca (suíno) - Lote de Caprino - Lote amostrado	Identificação de <i>Campylobacter</i> (PCR)		Positiva em Ig	<i>Campylobacter coli</i>	06-05-2014	07-05-2014	16-05-2014	16-05-2014
P-HP-14-00245	PIGA 2C 13-05-2014 512	Direção Geral de Alimentação e Veterinária	PIGA	Frango - Lote amostrado	Identificação de <i>Campylobacter</i> (PCR)	FE-004-FSA/BEM(2014-02-06)	Positiva em 25g	<i>Salmonella</i> 4,5,12:c-	13-05-2014	14-05-2014	22-05-2014	22-05-2014
P-HP-14-00249	PIGA 0302 130514 006	Direção Geral de Alimentação e Veterinária	PIGA	Carne fresca (Leitão) - Lote amostrado	Identificação de <i>Campylobacter</i> (PCR)	Serotipia de <i>Salmonella</i> , pelo esquema de Kauffmann-White	Positiva em Ig	<i>Campylobacter coli</i>	13-05-2014	14-05-2014	23-05-2014	26-05-2014
P-HP-14-00259	PIGA 0302 18052014 013	Direção Geral de Alimentação e Veterinária	PIGA	Carne fresca (Leitão) - Lote amostrado	Identificação de <i>Campylobacter</i> (PCR)		Positiva em Ig	<i>Campylobacter coli</i>	18-05-2014	20-05-2014	03-06-2014	03-06-2014
P-HP-14-00289	PIGA 1006 22-05-2014 48	Direção Geral de Alimentação e Veterinária	PIGA	Carne fresca (Leitão) - Selo	Identificação de <i>Campylobacter</i> (PCR)		Positiva em Ig	<i>Campylobacter coli</i>	21-05-2014	22-05-2014	04-06-2014	04-06-2014
P-HP-14-00302	PIGA 1006 26-05-2014 53	Direção Geral de Alimentação e Veterinária	PIGA	Carne fresca (suíno) - Selo	Identificação de <i>Campylobacter</i> (PCR)		Positiva em Ig	<i>Campylobacter coli</i>	26-05-2014	26-05-2014	06-06-2014	06-06-2014
P-HP-14-00303	PIGA 1006 26-05-2014 59	Direção Geral de Alimentação e Veterinária	PIGA	Frango (Músculo) - Lote amostrado	Identificação de <i>Campylobacter</i> (PCR)		Positiva em Ig	<i>Campylobacter coli</i>	26-05-2014	26-05-2014	06-06-2014	06-06-2014
P-HP-14-00316	PIGA 2V 27 05 2014 318	Direção Geral de Alimentação e Veterinária	PIGA	Frango (Músculo) - Lote amostrado	Identificação de <i>Campylobacter</i> (PCR)		Positiva em Ig	<i>Campylobacter coli</i>	27-05-2014	28-05-2014	06-06-2014	06-06-2014
P-HP-14-00317	PIGA 2V 27 05 2014 320	Direção Geral de Alimentação e Veterinária	PIGA	Frango temperado - Lote amostrado	Identificação de <i>Campylobacter</i> (PCR)		Positiva em Ig	<i>Campylobacter coli</i>	27-05-2014	28-05-2014	06-06-2014	06-06-2014
P-HP-14-00322	PIGA 2C 27-05-2014 513	Direção Geral de Alimentação e Veterinária	PIGA	Carne destinada a carne	Identificação de <i>Campylobacter</i> (PCR)		Positiva em Ig	<i>Campylobacter coli</i>	27-05-2014	28-05-2014	06-06-2014	06-06-2014

Figure 25: Final Structure of the sheet "Listagem amostras P-HP"

Procedure #9

PIGA (Biological monitoring): PIGA/INIAV

Verification of correspondence of the positive samples in the two sheets is performed using the columns "Amostra nº" and "Refª Externa" respectively and checking if the column " Serotipo " coincides with the "Identificação" column.

Procedure #10

PIGA (Biological monitoring): PIGA/INIAV

In the "Listagem amostras PAT" sheet, each sample has a set of lines (15 lines for *Salmonella*, antibiotics 14 + 1 with information to eliminate, and 7 lines for *Campylobacter*, antibiotics 6 + 1 with information to eliminate).

The information presented in the blue boxes is copied to the white rows below.

Important: The resulting file of these transformations should have the format shown below.

Amostra nº	Rifª externa	Cliente	Protocolo	Matriz	Método de ensaio	Identificação	subst. antibiot	Resultado CIM	Data de isolamento	Data de entrada	Data de conclusão	Data de autorização		
PAT-14-10628/DB/001	Faz parte integrante da P-HP-14-00098	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	Identificação de <i>Campylobacter</i> (PCR)	<i>Campylobacter coli</i>				28-04-2014 00:00	30-04-2014 00:00	09-06-2014 07:47	09-06-2014 08:50	
PAT-14-10628/DB/001	Faz parte integrante da P-HP-14-00098	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	Determinação da Concentração Inibitória Mínima (CIM), Diluição em Agar Mueller-Hinton		Estreptomicina (CIM)	1	mg/l	Sensível	28-04-2014 00:00	30-04-2014 00:00	09-06-2014 07:47	09-06-2014 08:50
PAT-14-10628/DB/001	Faz parte integrante da P-HP-14-00098	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	Determinação da Concentração Inibitória Mínima (CIM), Diluição em Agar Mueller-Hinton		Gentamicina (CIM)	0,5	mg/l	Sensível	28-04-2014 00:00	30-04-2014 00:00	09-06-2014 07:47	09-06-2014 08:50
PAT-14-10628/DB/001	Faz parte integrante da P-HP-14-00098	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	Determinação da Concentração Inibitória Mínima (CIM), Diluição em Agar Mueller-Hinton		Tetraciclina (CIM)	>64	mg/l	Resistente	28-04-2014 00:00	30-04-2014 00:00	09-06-2014 07:47	09-06-2014 08:50
PAT-14-10628/DB/001	Faz parte integrante da P-HP-14-00098	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	Determinação da Concentração Inibitória Mínima (CIM), Diluição em Agar Mueller-Hinton		Ciprofloxacina (CIM)	8	mg/l	Resistente	28-04-2014 00:00	30-04-2014 00:00	09-06-2014 07:47	09-06-2014 08:50
PAT-14-10628/DB/001	Faz parte integrante da P-HP-14-00098	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	Determinação da Concentração Inibitória Mínima (CIM), Diluição em Agar Mueller-Hinton		Ácido nalidíxico (CIM)	>64	mg/l	Resistente	28-04-2014 00:00	30-04-2014 00:00	09-06-2014 07:47	09-06-2014 08:50
PAT-14-10627/DB/001	Faz parte integrante da P-HP-14-00098	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	Identificação de <i>Campylobacter</i> (PCR)	<i>Campylobacter coli</i>					28-04-2014 00:00	30-04-2014 00:00	09-06-2014 07:52	09-06-2014 08:51
PAT-14-10627/DB/001	Faz parte integrante da P-HP-14-00098	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	Determinação da Concentração Inibitória Mínima (CIM), Diluição em		Entromicina (CIM)	≤ 1	mg/l	Sensível	28-04-2014 00:00	30-04-2014 00:00	09-06-2014 07:52	09-06-2014 08:51
PAT-14-10627/DB/001	Faz parte integrante da P-HP-14-00098	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	PE-007-PSA/BM (2014-02-03)		Estreptomicina (CIM)	0,5	mg/l	Sensível	28-04-2014 00:00	30-04-2014 00:00	09-06-2014 07:52	09-06-2014 08:51
PAT-14-10627/DB/001	Faz parte integrante da P-HP-14-00098	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	PE-007-PSA/BM (2014-02-03)		Gentamicina (CIM)	0,5	mg/l	Sensível	28-04-2014 00:00	30-04-2014 00:00	09-06-2014 07:52	09-06-2014 08:51
PAT-14-10627/DB/001	Faz parte integrante da P-HP-14-00098	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	PE-007-PSA/BM (2014-02-03)		Tetraciclina (CIM)	64	mg/l	Resistente	28-04-2014 00:00	30-04-2014 00:00	09-06-2014 07:52	09-06-2014 08:51
PAT-14-10627/DB/001	Faz parte integrante da P-HP-14-00098	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	PE-007-PSA/BM (2014-02-03)		Ciprofloxacina (CIM)	8	mg/l	Resistente	28-04-2014 00:00	30-04-2014 00:00	09-06-2014 07:52	09-06-2014 08:51
PAT-14-10627/DB/001	Faz parte integrante da P-HP-14-00098	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	PE-007-PSA/BM (2014-02-03)		Ácido nalidíxico (CIM)	>64	mg/l	Resistente	28-04-2014 00:00	30-04-2014 00:00	09-06-2014 07:52	09-06-2014 08:51
PAT-14-10627/DB/001	Faz parte integrante da P-HP-14-00098	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	PE-004-PSA/BM (2014-02-06) Serotipia									

Figure 26: Original Format "Listagem amostras PAT" sheet

Amostra nº	Rifª externa	Cliente	Protocolo	Matriz	Método de ensaio	Identificação	subst. antibiot	Resultado CIM	cutoff Value	lowest	highest	
PAT-14-13053/DB/001	Faz parte integrante da P-HP-14-00249	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	PE-007-PSA/BM (2014-02-03)	<i>Campylobacter coli</i>	Gentamicina (CIM)	>16		2	0,125	16
PAT-14-13053/DB/001	Faz parte integrante da P-HP-14-00249	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	PE-007-PSA/BM (2014-02-03)	<i>Campylobacter coli</i>	Tetraciclina (CIM)	>64		2	0,5	64
PAT-14-13053/DB/001	Faz parte integrante da P-HP-14-00249	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	PE-007-PSA/BM (2014-02-03)	<i>Campylobacter coli</i>	Ciprofloxacina (CIM)	16		0,5	0,125	16
PAT-14-13053/DB/001	Faz parte integrante da P-HP-14-00249	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	PE-007-PSA/BM (2014-02-03)	<i>Campylobacter coli</i>	Ácido nalidíxico (CIM)	>64		16	1	64
PAT-14-13053/DB/001	Faz parte integrante da P-HP-14-00249	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	PE-007-PSA/BM (2014-02-03)	<i>Campylobacter coli</i>	Entromicina (CIM)	>128		8	1	128
PAT-14-13053/DB/001	Faz parte integrante da P-HP-14-00249	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	PE-007-PSA/BM (2014-02-03)	<i>Campylobacter coli</i>	Estreptomicina (CIM)	>16		4	0,25	16
PAT-14-13362/DB/001	Faz parte integrante da P-HP-14-00259	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	PE-007-PSA/BM (2014-02-03)	<i>Campylobacter coli</i>	Estreptomicina (CIM)	0,5		4	0,25	16
PAT-14-13362/DB/001	Faz parte integrante da P-HP-14-00259	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	PE-007-PSA/BM (2014-02-03)	<i>Campylobacter coli</i>	Gentamicina (CIM)	0,5		2	0,125	16
PAT-14-13362/DB/001	Faz parte integrante da P-HP-14-00259	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	PE-007-PSA/BM (2014-02-03)	<i>Campylobacter coli</i>	Tetraciclina (CIM)	>64		2	0,5	64
PAT-14-13362/DB/001	Faz parte integrante da P-HP-14-00259	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	PE-007-PSA/BM (2014-02-03)	<i>Campylobacter coli</i>	Ciprofloxacina (CIM)	>16		0,5	0,125	16
PAT-14-13362/DB/001	Faz parte integrante da P-HP-14-00259	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	PE-007-PSA/BM (2014-02-03)	<i>Campylobacter coli</i>	Ácido nalidíxico (CIM)	>64		16	1	64
PAT-14-13362/DB/001	Faz parte integrante da P-HP-14-00259	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	PE-007-PSA/BM (2014-02-03)	<i>Campylobacter coli</i>	Entromicina (CIM)	>128		8	1	128
PAT-14-4424/DB/001	Faz parte integrante da P-HP-14-00324	Direção Geral de Alimentação e Veterinária	PIGA	Alimento	PE-007-PSA/BM (2014-02-03)	<i>Salmonella 4,8,12:i:-</i>	Trimetoprim (CIM)	>32		2	0,25	32

Figure 27: File resulting from the mentioned changes

Procedure #11

PIGA (Biological monitoring): PIGA/INIAV

In Fig. 28 are presented 3 columns added to the data file, containing mandatory information for the SSD2 model that was taken from the file. "2014_ZOO_FACT_AMR_ISOLATE_AST_DYN_SALMONELLA" and "2014_ZOO_FACT_AMR_ISOLATE_AST_DYN_CAMPYLOBACTER" sent by DGAV. These files correspond to the 2014 data reported for the AMR to *Salmonella* and *Campylobacter*.

resultCode	repYear	ref	lab	zoonosis	matrix	sampAr	labCode	labIsolCode	libTotUs	samp	samp	anMethCo	substan	cutoffVal	lowe	high	MIC
PT2014/INIAV-130530	2014	PT	EN	C coli	meat from pig fresh	PT1	INIAV/LEPAT-14-130530C		2014	5	Agar dilution	Nalidixic acid	16	1	4	>64	
PT2014/INIAV-130530	2014	PT	EN	C coli	meat from pig fresh	PT1	INIAV/LEPAT-14-130530C		2014	5	Agar dilution	Ciprofloxacin	0,5	0,125	6	16	
PT2014/INIAV-130530	2014	PT	EN	C coli	meat from pig fresh	PT1	INIAV/LEPAT-14-130530C		2014	5	Agar dilution	Erythromycin	8	1	1,8	>128	
PT2014/INIAV-130530	2014	PT	EN	C coli	meat from pig fresh	PT1	INIAV/LEPAT-14-130530C		2014	5	Agar dilution	Streptomycin	4	0,25	6	>16	
PT2014/INIAV-130530	2014	PT	EN	C coli	meat from pig fresh	PT1	INIAV/LEPAT-14-130530C		2014	5	Agar dilution	Gentamicin	2	0,125	6	>16	
PT2014/INIAV-130530	2014	PT	EN	C coli	meat from pig fresh	PT1	INIAV/LEPAT-14-130530C		2014	5	Agar dilution	Tetracycline	2	0,5	4	>64	
PT2014/INIAV-134460	2014	PT	EN	C jejuni	Gallus gallus broilers	PT1	INIAV/LEPAT-14-134460J		2014	6	Agar dilution	Nalidixic acid	16	1	4	>64	
PT2014/INIAV-134460	2014	PT	EN	C jejuni	Gallus gallus broilers	PT1	INIAV/LEPAT-14-134460J		2014	6	Agar dilution	Ciprofloxacin	0,5	0,125	6	>16	
PT2014/INIAV-134460	2014	PT	EN	C jejuni	Gallus gallus broilers	PT1	INIAV/LEPAT-14-134460J		2014	6	Agar dilution	Erythromycin	4	1	1,8	<=1	
PT2014/INIAV-134460	2014	PT	EN	C jejuni	Gallus gallus broilers	PT1	INIAV/LEPAT-14-134460J		2014	6	Agar dilution	Streptomycin	4	0,25	6	>2	
PT2014/INIAV-134460	2014	PT	EN	C jejuni	Gallus gallus broilers	PT1	INIAV/LEPAT-14-134460J		2014	6	Agar dilution	Gentamicin	2	0,125	6	0,5	
PT2014/INIAV-134460	2014	PT	EN	C jejuni	Gallus gallus broilers	PT1	INIAV/LEPAT-14-134460J		2014	6	Agar dilution	Tetracycline	1	0,5	4	>64	
PT2014/INIAV-134470	2014	PT	EN	C jejuni	Gallus gallus broilers	PT1	INIAV/LEPAT-14-134470J		2014	6	Agar dilution	Nalidixic acid	16	1	4	>64	
PT2014/INIAV-134470	2014	PT	EN	C jejuni	Gallus gallus broilers	PT1	INIAV/LEPAT-14-134470J		2014	6	Agar dilution	Ciprofloxacin	0,5	0,125	6	0,25	
PT2014/INIAV-134470	2014	PT	EN	C jejuni	Gallus gallus broilers	PT1	INIAV/LEPAT-14-134470J		2014	6	Agar dilution	Erythromycin	4	1	1,8	<=1	
PT2014/INIAV-134470	2014	PT	EN	C jejuni	Gallus gallus broilers	PT1	INIAV/LEPAT-14-134470J		2014	6	Agar dilution	Streptomycin	4	0,25	6	>2	
PT2014/INIAV-134470	2014	PT	EN	C jejuni	Gallus gallus broilers	PT1	INIAV/LEPAT-14-134470J		2014	6	Agar dilution	Gentamicin	2	0,125	6	1	
PT2014/INIAV-134470	2014	PT	EN	C jejuni	Gallus gallus broilers	PT1	INIAV/LEPAT-14-134470J		2014	6	Agar dilution	Tetracycline	1	0,5	4	>64	
PT2014/INIAV-134530	2014	PT	EN	C jejuni	Gallus gallus broilers	PT1	INIAV/LEPAT-14-134530J		2014	6	Agar dilution	Nalidixic acid	16	1	4	>64	
PT2014/INIAV-134530	2014	PT	EN	C jejuni	Gallus gallus broilers	PT1	INIAV/LEPAT-14-134530J		2014	6	Agar dilution	Ciprofloxacin	0,5	0,125	6	>16	
PT2014/INIAV-134530	2014	PT	EN	C jejuni	Gallus gallus broilers	PT1	INIAV/LEPAT-14-134530J		2014	6	Agar dilution	Erythromycin	4	1	1,8	>128	
PT2014/INIAV-134530	2014	PT	EN	C jejuni	Gallus gallus broilers	PT1	INIAV/LEPAT-14-134530J		2014	6	Agar dilution	Streptomycin	4	0,25	6	>2	
PT2014/INIAV-134530	2014	PT	EN	C jejuni	Gallus gallus broilers	PT1	INIAV/LEPAT-14-134530J		2014	6	Agar dilution	Gentamicin	2	0,125	6	1	
PT2014/INIAV-134530	2014	PT	EN	C jejuni	Gallus gallus broilers	PT1	INIAV/LEPAT-14-134530J		2014	6	Agar dilution	Tetracycline	1	0,5	4	>64	

Figure 28: Reported file with 2014 positive Campylobacter data

resultCode	zoonosis	mat	totUnitsTeste	totUnitsPositiv	labIsolCode	substance	cutoffVal	lowe	high	MIC
PT2014/INIAV-124540	Salmonella Enteritidis	Feed material of cereal grain origin			PAT-14-1223SA	Trimethoprim	2	0,25	32	0,5
PT2014/INIAV-124540	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1224SA	Nalidixic acid	16	4	128	16
PT2014/INIAV-124540	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1224SA	Ampicillin	8	1	64	<=1
PT2014/INIAV-124540	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1224SA	Azithromycin	16	2	64	4
PT2014/INIAV-124540	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1224SA	Cefotaxime	0,5	0,25	4	<=0,25
PT2014/INIAV-124540	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1224SA	Ceftazidime	2	0,5	8	<=0,5
PT2014/INIAV-124540	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1224SA	Ciprofloxacin	0,06	0,015	8	0,5
PT2014/INIAV-124540	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1224SA	Chloramphenicol	16	8	128	<=8
PT2014/INIAV-124540	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1224SA	Colistin	2	1	16	<=1
PT2014/INIAV-124540	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1224SA	Gentamicin	2	0,5	32	<=0,5
PT2014/INIAV-124540	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1224SA	Meropenem	0,125	0,03	16	<=0,03
PT2014/INIAV-124540	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1224SA	Sulphamethoxazole	256	8	1024	32
PT2014/INIAV-124540	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1224SA	Tetracycline	8	2	64	<=2
PT2014/INIAV-124540	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1224SA	Tigecycline	1	0,25	8	1
PT2014/INIAV-124540	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1224SA	Trimethoprim	2	0,25	32	<=0,25
PT2014/INIAV-1225SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1225SA	Nalidixic acid	16	4	128	<=4
PT2014/INIAV-1225SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1225SA	Ampicillin	8	1	64	<=1
PT2014/INIAV-1225SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1225SA	Azithromycin	16	2	64	4
PT2014/INIAV-1225SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1225SA	Cefotaxime	0,5	0,25	4	<=0,25
PT2014/INIAV-1225SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1225SA	Ceftazidime	2	0,5	8	<=0,5
PT2014/INIAV-1225SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1225SA	Ciprofloxacin	0,06	0,015	8	0,03
PT2014/INIAV-1225SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1225SA	Chloramphenicol	16	8	128	<=8
PT2014/INIAV-1225SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1225SA	Colistin	2	1	16	<=1
PT2014/INIAV-1225SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1225SA	Gentamicin	2	0,5	32	<=0,5
PT2014/INIAV-1225SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1225SA	Meropenem	0,125	0,03	16	<=0,03
PT2014/INIAV-1225SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1225SA	Sulphamethoxazole	256	8	1024	32
PT2014/INIAV-1225SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1225SA	Tetracycline	8	2	64	<=2
PT2014/INIAV-1225SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1225SA	Tigecycline	1	0,25	8	1
PT2014/INIAV-1225SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1225SA	Trimethoprim	2	0,25	32	<=0,25
PT2014/INIAV-1847SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1847SA	Nalidixic acid	16	4	128	16
PT2014/INIAV-1847SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1847SA	Ampicillin	8	1	64	<=1
PT2014/INIAV-1847SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1847SA	Azithromycin	16	2	64	8
PT2014/INIAV-1847SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1847SA	Cefotaxime	0,5	0,25	4	<=0,25
PT2014/INIAV-1847SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1847SA	Ceftazidime	2	0,5	8	<=0,5
PT2014/INIAV-1847SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1847SA	Ciprofloxacin	0,06	0,015	8	0,5
PT2014/INIAV-1847SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1847SA	Chloramphenicol	16	8	128	<=8
PT2014/INIAV-1847SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1847SA	Colistin	2	1	16	<=1
PT2014/INIAV-1847SA	Salmonella Havana	Gallus gallus broilers during rearing period			PAT-14-1847SA	Gentamicin	2	0,5	32	<=0,5

Figure 29: Reported file with 2014 positive Salmonella data

Procedure #12

PIGA (Biological monitoring): PIGA/INIAV

The match between these files and the "Listagem amostras PAT" sheet is held between the column "labIsolCode" and "Amostra nº" awarded also that the column "zoonosis" has the same microorganism as the "Identificação" column.

Procedure #13

PIGA (Biological monitoring): PIGA/INIAV

There was been cases where in the separator " Listagem amostras PAT " the " Resultado CIM " column had a different value for a given antibiotic than the "MIC" column in the reported data file. The value in INIAV file was changed to the present value in the reported data file.

Note

In the "Listagem amostras PAT" sheet, the column where it appears "Sensível" or "Resistente" is not completed for all antibiotics. This was completed using the following criteria:

- When the value of the column "Resultado CIM" it is equal or lower than the cut-off value, "cutoffValue", result "sensível";
- When the value of the column "Resultado CIM" it is upper than the cut-off value, "cutoffValue", result "resistente".

4.2. PIGA/Açores e Madeira

Note

In PIGA plan in addition to the samples analyzed by INIAV, samples were also taken and analyzed in the autonomous regions of the Azores and Madeira. These data were for information only for the PRV model.

Parametro	TipoProdutoNivel1	TipoProdutoN2	TipoProdutoN3	TipoProdutoN4	FaseCadeia	UnidadeAmostr	Laboratório	NumBc
E. coli	Productos Lácteos (excepto Queij)	Soro de Leite			Produção	Unitário	LRV (Açores) Laboratório Regional d	18558
Stafilococos	Productos Lácteos (excepto Queij)	Soro de Leite			Produção	Unitário	LRV (Açores) Laboratório Regional d	18558
Listeria	Productos Lácteos (excepto Queij)	Soro de Leite			Produção	Unitário	LRV (Açores) Laboratório Regional d	18558
Salmonella	Productos Lácteos (excepto Queij)	Soro de Leite			Produção	Unitário	LRV (Açores) Laboratório Regional d	18558
E. coli	Productos Lácteos (excepto Queij)	Manteiga	Feita com leite p		Produção	Unitário	LRV (Açores) Laboratório Regional d	18557
Listeria	Productos Lácteos (excepto Queij)	Manteiga	Feita com leite p		Produção	Unitário	LRV (Açores) Laboratório Regional d	18557
Salmonella	Productos Lácteos (excepto Queij)	Manteiga	Feita com leite p		Produção	Unitário	LRV (Açores) Laboratório Regional d	18557
E. coli	Queijos de Leite Vaca	Duros	Feitos com leite p		Produção	Unitário	LRV (Açores) Laboratório Regional d	18556
Stafilococos	Queijos de Leite Vaca	Duros	Feitos com leite p		Produção	Unitário	LRV (Açores) Laboratório Regional d	18556
Listeria	Queijos de Leite Vaca	Duros	Feitos com leite p		Produção	Unitário	LRV (Açores) Laboratório Regional d	18556
Salmonella	Queijos de Leite Vaca	Duros	Feitos com leite p		Produção	Unitário	LRV (Açores) Laboratório Regional d	18556
Contagem de Bolores e Leveduras	Queijos de Leite Vaca	Pasta mole e sem	Feitos com leite p		Produção	Unitário	LRV (Açores) Laboratório Regional d	42180
Stafilococos	Queijos de Leite Vaca	Pasta mole e sem	Feitos com leite p		Produção	Unitário	LRV (Açores) Laboratório Regional d	42180
Listeria	Queijos de Leite Vaca	Pasta mole e sem	Feitos com leite p		Produção	Unitário	LRV (Açores) Laboratório Regional d	42180
Salmonella	Queijos de Leite Vaca	Pasta mole e sem	Feitos com leite p		Produção	Unitário	LRV (Açores) Laboratório Regional d	42180
Contagem de Bolores e Leveduras	Queijos de Leite Vaca	Pasta mole e sem	Feitos com leite p		Produção	Unitário	LRV (Açores) Laboratório Regional d	70984
Contagem de Bolores e Leveduras	Queijos de Leite Vaca	Pasta mole e sem	Feitos com leite p		Produção	Unitário	LRV (Açores) Laboratório Regional d	60392
Stafilococos	Queijos de Leite Vaca	Pasta mole e sem	Feitos com leite p		Produção	Unitário	LRV (Açores) Laboratório Regional d	60392
Listeria	Queijos de Leite Vaca	Pasta mole e sem	Feitos com leite p		Produção	Unitário	LRV (Açores) Laboratório Regional d	60392
Salmonella	Queijos de Leite Vaca	Pasta mole e sem	Feitos com leite p		Produção	Unitário	LRV (Açores) Laboratório Regional d	60392
Contagem de Bolores e Leveduras	Queijos de Leite Vaca	Pasta mole e sem	Feitos com leite p		Produção	Unitário	LRV (Açores) Laboratório Regional d	70984
Stafilococos	Queijos de Leite Vaca	Pasta mole e sem	Feitos com leite p		Produção	Unitário	LRV (Açores) Laboratório Regional d	70984
Listeria	Queijos de Leite Vaca	Pasta mole e sem	Feitos com leite p		Produção	Unitário	LRV (Açores) Laboratório Regional d	70984
Salmonella	Queijos de Leite Vaca	Pasta mole e sem	Feitos com leite p		Produção	Unitário	LRV (Açores) Laboratório Regional d	70984

Figure 30: PIGA plan original data extracted from the SIPACE

Procedure #1

PIGA (Biological monitoring): PIGA/Açores e Madeira

Filter in the "Laboratório" column, the laboratories of the Autonomous Region (AR) of Madeira and the Azores and eliminate the lines that do not match these.

Procedure #2

PIGA (Biological monitoring): PIGA/Açores e Madeira

In the column "Parametro", the parameters to report in this domain (*Brucella*, *Campylobacter*, *Listeria*, *Salmonella*, enterotoxin) and eliminate what does not correspond to these.

Procedure #3

PIGA (Biological monitoring): PIGA/Açores e Madeira

Important: There is not enough information in the collection file, nor was there file with detailed information of the laboratory analysis.

The header of the data sent by INIAV regarding to the "Listagem amostras P-HP" and "Listing PAT samples" sheets was added. This file has been split into two (one with data of the Azores and another with data from Madeira). These files were sent to the Competent Authority in order to be filled with the necessary information.

Unidade	Laboratório	NumBols	AgenteOuSerot	Resultado	Quantí	Obser	Região	ensalo	ensalo	Resultado	Serótipo	Final de	ensalo	So	lot	CIM	Unidade	Sensível	Isolament	Final de	
Unitário	LRVSA (Madeira)	1866		Negativo	25g		Madeira	ISO 11290-1:1996 e C	Enriquecimento prim	Ausente em 25g	-	12-11-2014									
Unitário	LRVSA (Madeira)	1866		Negativo	25g		Madeira	ISO 6579:2002 e C	Pré-enriquecimento	Ausente em 25g	-	10-11-2014									
Unitário	LRVSA (Madeira)	1865		Negativo	25g		Madeira	ISO 11290-1:1996 e C	Enriquecimento prim	Ausente em 25g	-	12-11-2014									
Unitário	LRVSA (Madeira)	1865		Negativo	25g		Madeira	ISO 6579:2002 e C	Pré-enriquecimento	Ausente em 25g	-	12-11-2014									
Unitário	LRVSA (Madeira)	1867		Positivo			Madeira	API Campy	Enriquecimento em C	Presente em 25g	<i>Campylobacter coli</i>	14-11-2014							13-11-2014	14-11-2014	
Unitário	LRVSA (Madeira)	1867		Negativo			Madeira	ISO 6579:2002 e C	Pré-enriquecimento	Ausente em 25g	-	12-11-2014									
Unitário	LRVSA (Madeira)	1868		Negativo	25g		Madeira	Método simplifica	Enriquecimento em C	Ausente em 25g	-	12-11-2014									
Unitário	LRVSA (Madeira)	1868		Negativo	25g		Madeira	ISO 6579:2002 e C	Pré-enriquecimento	Ausente em 25g	-	12-11-2014									
Unitário	LRVSA (Madeira)	1871		Negativo	25g		Madeira	Método simplifica	Enriquecimento em C	Ausente em 25g	-	16-11-2014									
Unitário	LRVSA (Madeira)	1871		Negativo	25g		Madeira	ISO 6579:2002 e C	Pré-enriquecimento	Ausente em 25g	-	17-11-2014									
Unitário	LRVSA (Madeira)	1872		Negativo	25g		Madeira	Método simplifica	Enriquecimento em C	Ausente em 25g	-	15-11-2014									
Unitário	LRVSA (Madeira)	1872		Negativo	25g		Madeira	ISO 6579:2002 e C	Pré-enriquecimento	Ausente em 25g	-	15-11-2014									
Unitário	LRVSA (Madeira)	1874		Negativo	25g		Madeira	Método simplifica	Enriquecimento em C	Ausente em 25g	-	16-11-2014									
Unitário	LRVSA (Madeira)	1874		Negativo	25g		Madeira	ISO 6579:2002 e C	Pré-enriquecimento	Ausente em 25g	-	14-11-2014									
Unitário	LRVSA (Madeira)	1875		Negativo	25g		Madeira	Método simplifica	Enriquecimento em C	Ausente em 25g	-	15-11-2014									
Unitário	LRVSA (Madeira)	1875		Negativo	25g		Madeira	ISO 6579:2002 e C	Pré-enriquecimento	Ausente em 25g	-	14-11-2014									
Unitário	LRVSA (Madeira)	1873		Negativo	25g		Madeira	Método simplifica	Enriquecimento em C	Ausente em 25g	-	15-11-2014									
Unitário	LRVSA (Madeira)	1873		Negativo	25g		Madeira	ISO 6579:2002 e C	Pré-enriquecimento	Ausente em 25g	-	17-11-2014									
Unitário	LRVSA (Madeira)	1924		Negativo	25g		Madeira	ISO 6579:2002 e C	Pré-enriquecimento	Ausente em 25g	-	20-11-2014									

Figure 31: Data corrected by AR Madeira

Sid	Resultado	Quantific	Observaç	Região	Método de ensaio	Descrição do ensaio	Resultado	Serótipo	Data de final de análise	Método de ensaio	Identificação	subst.antió	Resultado CRM	Unidade	Resistente /Sensível	Data de isolamento	Data de final de Análise
31763	Negativo			Açores	ISO 11290 - 1.1996/	Cultural	Ausente/25g		#####								
31763	Negativo			Açores	ISO 6579-2002	Cultural	Ausente/25g		#####								
31802	Negativo			Açores	ISO 11290 - 1.1996/	Cultural	Ausente/25g		#####								
31802	Negativo			Açores	ISO 6579-2002	Cultural	Ausente/25g		#####								
31816	Negativo			Açores	ISO 11290 - 1.1996/	Cultural	Ausente/25g		#####								
31816	Negativo			Açores	ISO 6579-2002	Cultural	Ausente/25g		#####								
31823	Negativo			Açores	ISO 11290 - 1.1996/	Cultural	Ausente/25g		#####								
31823	Negativo			Açores	ISO 6579-2002	Cultural	Ausente/25g		#####								
31833	Negativo			Açores	ISO 11290 - 1.1996/	Cultural	Ausente/25g		#####								
31833	Negativo			Açores	ISO 6579-2002	Cultural	Ausente/25g		#####								
31954	Negativo			Açores	ISO 11290 - 1.1996/	Cultural	Ausente/25g		#####								
31954	Negativo			Açores	ISO 6579-2002	Cultural	Ausente/25g		#####								
31956	Negativo			Açores	ISO 6579-2002	Cultural	Ausente/25g		#####								
31958	Negativo			Açores	ISO 6579-2002	Cultural	Ausente/25g		#####								
32128	Negativo			Açores	ISO 11290 - 1.1996/	Cultural	Ausente/25g		#####								
32128	Negativo			Açores	ISO 6579-2002	Cultural	Ausente/25g		#####								
32129	Negativo			Açores	ISO 11290 - 1.1996/	Cultural	Ausente/25g		#####								
32129	Negativo			Açores	ISO 6579-2002	Cultural	Ausente/25g		#####								
32130	Positivo			Relativar Açores	ISO 16649-2.2001	Cultural	Ausente/25g		#####								
32130	Positivo			Relativar Açores	PE-004-BAC/DB (20	Cultural	Presente/25g	Salmonella R:	#####							14-02-2014	
32225	Negativo			Açores	Segundo o manua	Cultural	Negativo		#####								
32734	Negativo			Açores	ISO 11290 - 1.1996/	Cultural	Ausente/25g		#####								
32734	Negativo			Açores	ISO 6579-2002	Cultural	Ausente/25g		#####								
32814	Negativo			RELATIVA Açores	ISO 11290 - 1.1996/	Cultural	Ausente/25g		#####								
32814	Negativo			RELATIVA Açores	ISO 6579-2002	Cultural	Ausente/25g		#####								
32860	Negativo			Açores	ISO 10272-1.2006	Cultural	Ausente/1g		#####								
32860	Negativo			Açores	ISO 11290-2.1998/A	Cultural	<10 ufc/g		#####								
32860	Negativo			Açores	ISO 6579-2002	Cultural	Ausente/25g		#####								
32861	Negativo			Açores	ISO 11290 - 1.1996/	Cultural	Ausente/25g		#####								
32861	Negativo			Açores	ISO 6579-2002	Cultural	Ausente/25g		#####								

Figure 32: Data corrected by AR Azores

5. PIGA Chemical contaminants (Histamine)

5.1. PIGA/IPMA

Parametro	TipoProdutoNivel1	TipoProdutoNi	TipoProdutoN	TipoProdu	FaseCadeia	UnidadeAmostr	Laboratorio	NumBc
Histamina	Peixe/Produtos da pesca	Produto da pesca	(em branco)	(em branco)	Produção	Lote	IPMA	12625/FC
Histamina	Peixe/Produtos da pesca	Conservas de pei	(em branco)	(em branco)	Produção	Unitário	IPMA	12682/FC
Histamina	Peixe/Produtos da pesca	Produto da pesca			Produção	Lote	IPMA	13376/FC
Histamina	Peixe/Produtos da pesca	Produto da pesca			Produção	Lote	IPMA	13377/FC
Histamina	Peixe/Produtos da pesca	Produto da pesca			Produção	Lote	IPMA	13378/FC
Histamina	Peixe/Produtos da pesca	Produto da pesca (em branco)	(em branco)	(em branco)	Produção	Unitário	IPMA	13031/FC
Histamina	Peixe/Produtos da pesca	Produto da pesca (em branco)	(em branco)	(em branco)	Produção	Unitário	IPMA	13038/FC
Histamina	Peixe/Produtos da pesca	Produto da pesca (em branco)	(em branco)	(em branco)		Lote	IPMA	13099/FC
Histamina	Peixe/Produtos da pesca	Produto da pesca (em branco)	(em branco)	(em branco)		Lote	IPMA	13100/FC
Histamina	Peixe/Produtos da pesca	Produto da pesca (em branco)	(em branco)	(em branco)		Lote	IPMA	13101/FC
Histamina	Peixe/Produtos da pesca	Produto da pesca (em branco)	(em branco)	(em branco)		Lote	IPMA	13102/FC
Histamina	Peixe/Produtos da pesca	Produto da pesca (em branco)	(em branco)	(em branco)		Lote	IPMA	13103/FC
Histamina	Peixe/Produtos da pesca	Produto da pesca (em branco)	(em branco)	(em branco)		Lote	IPMA	13104/FC
Histamina	Peixe/Produtos da pesca	Produto da pesca (em branco)	(em branco)	(em branco)		Lote	IPMA	13105/FC
Histamina	Peixe/Produtos da pesca	Produto da pesca (em branco)	(em branco)	(em branco)	Produção	Unitário	IPMA	13055/FC
Histamina	Peixe/Produtos da pesca	Produto da pesca (em branco)	(em branco)	(em branco)	Produção	Unitário	IPMA	13054/FC
Histamina	Peixe/Produtos da pesca	Produto da pesca (em branco)	(em branco)	(em branco)	Produção	Lote	IPMA	13161/FC
Histamina	Peixe/Produtos da pesca	Produto da pesca (em branco)	(em branco)	(em branco)	Produção	Lote	IPMA	13162/FC
Histamina	Peixe/Produtos da pesca	Produto da pesca (em branco)	(em branco)	(em branco)	Produção	Unitário	IPMA	13256/FC
Histamina	Peixe/Produtos da pesca	Produto da pesca (em branco)	(em branco)	(em branco)	Produção	Unitário	IPMA	13257/FC
Histamina	Peixe/Produtos da pesca	Produto da pesca			Produção/Indú	Lote	IPMA	13399/FC
Histamina	Peixe/Produtos da pesca	Conservas de pei			Produção/Indú	Lote	IPMA	13398/FC
Histamina	Peixe/Produtos da pesca	Produto da pesca			Produção/Indú	Lote	IPMA	13385/IF
Histamina	Peixe/Produtos da pesca	Produto da pesca			Produção/Indú	Lote	IPMA	13386/FC

Figure 33: Data taken from SIPACE

Procedure #1

PIGA (Chemical contaminants [Histamine]): PIGA/IPMA

In "Laboratorio" column, remove all lines that do not have the "IPMA" value.

Procedure #2

PIGA (Chemical contaminants [Histamine]): PIGA/IPMA

In the column "Parametro" delete all lines that do not have the "Histamine" value. The document should reflect the look like the picture.

Procedimento #3

PIGA (Chemical contaminants [Histamine]): PIGA/IPMA

Connection between the collection file, and the analytical results file was performed as follows:

- The "NumBoletimLaboratorio" of the collection file should present correspondence with the column "Ref (number)" from the results file. It was not necessary correspondence with the parameter column because the lab sent one only file for the parameter histamine PIGA plan.

Ref (número)	Data de colheita	Data do resultado	Origem	Plano	Espécie	Produto	Histamina (Valor médio das 9 unidades)
12625	08-06-2014	27-06-2014		PIGA		Cavala	10,9 mg/kg
12682	01-07-2014	23-07-2014		PIGA		Paté sardinha	3,3 mg/kg
13031	30-09-2014	16-10-2014		PIGA		Sardinha azeite	< L.Q.(1,6 mg/kg)
13038	01-10-2014	16-10-2014		PIGA		Filete cavala azeite	< L.Q.(1,6 mg/kg)
13054	23-09-2014	23-10-2014		PIGA		Petinga azeite	< L.D. (0,5 mg/kg)
13055	23-09-2014	28-10-2014		PIGA		Atum posta óleo	4,4 mg/kg
13099	05-10-2014	28-10-2014		PIGA		Atum	< L.D. (0,5 mg/kg)
13100	05-10-2014	28-10-2014		PIGA		Cavala tomate	3,1 mg/kg
13101	05-10-2014	17-11-2014		PIGA		Sardinha tomate	< L.Q.(1,6 mg/kg)
13102	05-10-2014	17-11-2014		PIGA		Cavala tomate	2,5 mg/kg
13103	05-10-2014	17-11-2014		PIGA		Paté cavala	1,8 mg/kg
13104	05-10-2014	20-11-2014		PIGA		Sardinha óleo vegetal	< L.Q.(1,6 mg/kg)
13105	05-10-2014	02-12-2014		PIGA		Cavala óleo vegetal	30,8 mg/kg
13161	28-10-2014	20-11-2014		PIGA		Conserva	< L.Q.(1,6 mg/kg)
13162	28-10-2014	04-12-2014		PIGA		Conserva	< L.Q.(1,6 mg/kg)
13256	08-11-2014	11-12-2014		PIGA		Conserva	< L.Q.(1,6 mg/kg)
13257	08-11-2014	18-12-2014		PIGA		Conserva	2,3 mg/kg
13376	10-09-2014	14-01-2015		PIGA		Conserva atum ao natu	< L.Q.(1,6 mg/kg)
13377	07-09-2014	16-01-2015		PIGA		Sardinha em tomate	< L.Q.(1,6 mg/kg)
13378	08-09-2014	16-01-2015		PIGA		Sardinha	< L.D. (0,5 mg/kg)
13385	11-12-2014	16-01-2015		PIGA		Sardinha	< L.D. (0,5 mg/kg)
13386	11-12-2014	20-01-2015		PIGA		Sardinha	< L.D. (0,5 mg/kg)
13398	06-12-2014	20-01-2015		PIGA		Sardinha Conserva	< L.Q.(1,6 mg/kg)
13399	06-12-2014	18-12-2014		PIGA		Sardinha	< L.D. (0,5 mg/kg)
13411	06-12-2014	20-01-2015		PIGA		Sardinha	< L.D. (0,5 mg/kg)

Figure 34: Data sent by IPMA

Procedure #4

PIGA (Chemical contaminants [Histamine]): PIGA/IPMA

If any element of the column "NumBoletimLaboratorio" is not present in the results file or if any element of the column "Ref (número)" is not present in the collection file, it is necessary to contact the Competent Authority.

INSA Biological monitoring

S01	S14	S16	S21	S28_29_30	R06	R02_03_04	R07	R12	R13	R18	R28	TIPO_ANALISE	STA
307015	Controlo Interno da Qualidade (Branco			2014-01-02 00:00	80229	NULL	Contagem de Escherichia coli	SO 16649- ufc/g			<10*1	Qualidade	
307015	Controlo Interno da Qualidade (Branco			2014-01-02 00:00	80239	NULL	Contagem de Listeria spp.	SO 11290- ufc/g			<10*2	Qualidade	
307015	Controlo Interno da Qualidade (Branco			2014-01-02 00:00	82129	NULL	Pesquisa de Listeria monoocyto	VIDAS LMC /25g				Qualidade	
307015	Controlo Interno da Qualidade (Branco			2014-01-02 00:00	82130	NULL	Pesquisa de Salmonella spp.	VIDAS SLM /25g			Ausente	Qualidade	
304157	Dvas panadas com puré de batata e m	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	82121	2014-01-07 00:00	Contagem de Escherichia coli	TEMPO EC- ufc/g	5,7x10*1		<10*1	Comercial	
304157	Dvas panadas com puré de batata e m	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	82129	2014-01-07 00:00	Pesquisa de Listeria monoocyto	VIDAS LMC /25g				Comercial	
304157	Dvas panadas com puré de batata e m	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	82130	2014-01-07 00:00	Pesquisa de Salmonella spp.	VIDAS SLM /25g			Ausente	Comercial	
304157	Dvas panadas com puré de batata e m	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	80238	2014-01-07 00:00	Contagem de Listeria monoocyto	SO 11290- ufc/g	<1x10*1		<10*2	Estudo	
304163	Arroz doce com canela	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	82121	2014-01-07 00:00	Contagem de Escherichia coli	TEMPO EC- ufc/g	<1x10*1		<10*1	Comercial	
304163	Arroz doce com canela	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	80238	2014-01-07 00:00	Contagem de Listeria monoocyto	SO 11290- ufc/g	<1x10*1		<10*2	Estudo	
304163	Arroz doce com canela	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	82129	2014-01-07 00:00	Pesquisa de Listeria monoocyto	VIDAS LMC /25g			Ausente	Comercial	
304163	Arroz doce com canela	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	82130	2014-01-07 00:00	Pesquisa de Salmonella spp.	VIDAS SLM /25g			Ausente	Comercial	
304168	Esfregação de 5 pratos em porcelana pr	Em 10 mL de meio de a Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	82121	2014-01-06 00:00	Contagem de Escherichia coli	TEMPO EC- ufc/peça	<2		<LD	Comercial	
304160	Bife de peru grelhado c/ arroz e feijão	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	82121	2014-01-07 00:00	Contagem de Escherichia coli	TEMPO EC- ufc/g	<1x10*1		<10*1	Comercial	
304160	Bife de peru grelhado c/ arroz e feijão	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	82129	2014-01-07 00:00	Pesquisa de Listeria monoocyto	VIDAS LMC /25g			Ausente	Comercial	
304160	Bife de peru grelhado c/ arroz e feijão	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	82130	2014-01-07 00:00	Pesquisa de Salmonella spp.	VIDAS SLM /25g			Ausente	Comercial	
304160	Bife de peru grelhado c/ arroz e feijão	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	80238	2014-01-07 00:00	Contagem de Listeria monoocyto	SO 11290- ufc/g	<1x10*1		<10*2	Estudo	
304167	Dvas panadas com puré de batata e m	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	80238	2014-01-07 00:00	Contagem de Listeria monoocyto	SO 11290- ufc/g	<1x10*1		<10*2	Estudo	
304167	Dvas panadas com puré de batata e m	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	82121	2014-01-07 00:00	Contagem de Escherichia coli	TEMPO EC- ufc/g	2,1x10*1		<10*1	Comercial	
304167	Dvas panadas com puré de batata e m	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	82129	2014-01-07 00:00	Pesquisa de Listeria monoocyto	VIDAS LMC /25g			Ausente	Comercial	
304167	Dvas panadas com puré de batata e m	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	82130	2014-01-07 00:00	Pesquisa de Salmonella spp.	VIDAS SLM /25g			Ausente	Comercial	
304168	Esfregação de 5 tigelas de sopa em inc	Em 10 mL de meio de a Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	82121	2014-01-06 00:00	Contagem de Escherichia coli	TEMPO EC- ufc/peça	<2		<LD	Comercial	
304150	Almofadinhas de legumes	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	82121	2014-01-07 00:00	Contagem de Escherichia coli	TEMPO EC- ufc/g	<1x10*1		<10*1	Comercial	
304150	Almofadinhas de legumes	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	82129	2014-01-07 00:00	Pesquisa de Listeria monoocyto	VIDAS LMC /25g			Ausente	Comercial	
304150	Almofadinhas de legumes	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	82130	2014-01-07 00:00	Pesquisa de Salmonella spp.	VIDAS SLM /25g			Ausente	Comercial	
304150	Almofadinhas de legumes	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	80238	2014-01-07 00:00	Contagem de Listeria monoocyto	SO 11290- ufc/g	<1x10*1		<10*2	Estudo	
304156	Esfregação de 5 copos de vidro prontos	Em 10 mL de meio de a Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	82121	2014-01-06 00:00	Contagem de Escherichia coli	TEMPO EC- ufc/peça	<2		<LD	Comercial	
304171	Croquetes de carne	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	82121	2014-01-07 00:00	Contagem de Escherichia coli	TEMPO EC- ufc/g	<1x10*1		<10*1	Comercial	
304171	Croquetes de carne	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	82129	2014-01-07 00:00	Pesquisa de Listeria monoocyto	VIDAS LMC /25g			Ausente	Comercial	
304171	Croquetes de carne	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	82130	2014-01-07 00:00	Pesquisa de Salmonella spp.	VIDAS SLM /25g			Ausente	Comercial	
304171	Croquetes de carne	Em saco de plástico es Laboratório, de acordo com DAF 2014-01-02 00:00		2014-01-02 00:00	80238	2014-01-07 00:00	Contagem de Listeria monoocyto	SO 11290- ufc/g	<1x10*1		<10*2	Estudo	

Figure 35: Data file extracted from SIGALIS

Procedure #1

INSA (Biological monitoring)

In the column marked "TIPO_ANALISE", select "Qualidade" and "Formação" and eliminate these lines, we use only the samples corresponding to "Estudo" and "Comercial".

Procedure #2

INSA (Biological monitoring)

After this transformation (Procedure # 1), in "S14" column, remove the samples with "Esfregação...", "Controlo interno...", "Branco".

Procedure #3

INSA (Biological monitoring)

Then in the "R07" column, delete "Contagem de Escherichia coli", "Pesquisa de Escherichia coli" and "Escherichia coli, pesquisa".

Procedure #4

INSA (Biological monitoring)

In the "S16" column some of the samples have the country of origin, so it was added the "Country of Origin" column.

S01	S14	S16	Pais de Origem	Laboratório	S21	S28_29_30	R06	R02_03_04	R07	R12
304150	Almofadinhas de legumes	Em saco de plástico estéril	Portugal	Laboratório, de acordo co	2014-01-02 00:			82129 2014-01-07 00:00:	Pesquisa de Listeria	VIDAS LMO2-AFNOR BIO 12/11-03/04
304150	Almofadinhas de legumes	Em saco de plástico estéril	Portugal	Laboratório, de acordo co	2014-01-02 00:			80238 2014-01-07 00:00:	Contagem de Listeria	ISO 11290-2:1998/Amd.1:2004 (Acreditado)
304157	Ovas panadas com puré de batata e mio	Em saco de plástico estéril	Portugal	Laboratório, de acordo co	2014-01-02 00:			82129 2014-01-07 00:00:	Pesquisa de Listeria	VIDAS LMO2-AFNOR BIO 12/11-03/04
304157	Ovas panadas com puré de batata e mio	Em saco de plástico estéril	Portugal	Laboratório, de acordo co	2014-01-02 00:			80238 2014-01-07 00:00:	Contagem de Listeria	ISO 11290-2:1998/Amd.1:2004 (Acreditado)
304160	Bife de peru grelhado c/ arroz e feijão v	Em saco de plástico estéril	Portugal	Laboratório, de acordo co	2014-01-02 00:			82129 2014-01-07 00:00:	Pesquisa de Listeria	VIDAS LMO2-AFNOR BIO 12/11-03/04
304160	Bife de peru grelhado c/ arroz e feijão v	Em saco de plástico estéril	Portugal	Laboratório, de acordo co	2014-01-02 00:			80238 2014-01-07 00:00:	Contagem de Listeria	ISO 11290-2:1998/Amd.1:2004 (Acreditado)
304163	Arroz doce com canela	Em saco de plástico estéril	Portugal	Laboratório, de acordo co	2014-01-02 00:			80238 2014-01-07 00:00:	Contagem de Listeria	ISO 11290-2:1998/Amd.1:2004 (Acreditado)
304163	Arroz doce com canela	Em saco de plástico estéril	Portugal	Laboratório, de acordo co	2014-01-02 00:			82129 2014-01-07 00:00:	Pesquisa de Listeria	VIDAS LMO2-AFNOR BIO 12/11-03/04
304167	Ovas panadas com puré de batata e mio	Em saco de plástico estéril	Portugal	Laboratório, de acordo co	2014-01-02 00:			80238 2014-01-07 00:00:	Contagem de Listeria	ISO 11290-2:1998/Amd.1:2004 (Acreditado)
304167	Ovas panadas com puré de batata e mio	Em saco de plástico estéril	Portugal	Laboratório, de acordo co	2014-01-02 00:			82129 2014-01-07 00:00:	Pesquisa de Listeria	VIDAS LMO2-AFNOR BIO 12/11-03/04
304171	Croquetes de carne	Em saco de plástico estéril	Portugal	Laboratório, de acordo co	2014-01-02 00:			82129 2014-01-07 00:00:	Pesquisa de Listeria	VIDAS LMO2-AFNOR BIO 12/11-03/04
304171	Croquetes de carne	Em saco de plástico estéril	Portugal	Laboratório, de acordo co	2014-01-02 00:			80238 2014-01-07 00:00:	Contagem de Listeria	ISO 11290-2:1998/Amd.1:2004 (Acreditado)
304269	Filetes de pescada com arroz de tomate	Em saco de plástico estéril	Portugal		2014-01-07 00:			80239 2014-01-13 00:00:	Contagem de Listeria	ISO 11290-2:1998/Amd.1:2004 (Acreditado)
304269	Filetes de pescada com arroz de tomate	Em saco de plástico estéril	Portugal		2014-01-07 00:			82129 2014-01-13 00:00:	Pesquisa de Listeria	VIDAS LMO2-AFNOR BIO 12/11-03/04
304270	Maçã assada	Em saco de plástico estéril	Portugal		2014-01-07 00:			80239 2014-01-13 00:00:	Contagem de Listeria	ISO 11290-2:1998/Amd.1:2004 (Acreditado)
304270	Maçã assada	Em saco de plástico estéril	Portugal		2014-01-07 00:			82129 2014-01-13 00:00:	Pesquisa de Listeria	VIDAS LMO2-AFNOR BIO 12/11-03/04
304584	Almôndegas de vaca estufadas com ma	Em saco de plástico estéril	Portugal		2014-01-06 00:			80239 2014-01-10 00:00:	Contagem de Listeria	ISO 11290-2:1998/Amd.1:2004 (Acreditado)
304584	Almôndegas de vaca estufadas com ma	Em saco de plástico estéril	Portugal		2014-01-06 00:			82129 2014-01-10 00:00:	Pesquisa de Listeria	VIDAS LMO2-AFNOR BIO 12/11-03/04
304585	Alface	Em saco de plástico estéril	Portugal		2014-01-06 00:			80239 2014-01-14 00:00:	Contagem de Listeria	ISO 11290-2:1998/Amd.1:2004 (N Acreditada)
304585	Alface	Em saco de plástico estéril	Portugal		2014-01-06 00:			82129 2014-01-14 00:00:	Pesquisa de Listeria	VIDAS LMO2-AFNOR BIO 12/11-03/04
304598	Bife de porco com crocante de farinha	Em saco de plástico estéril	Portugal		2014-01-06 00:			80239 2014-01-14 00:00:	Contagem de Listeria	ISO 11290-2:1998/Amd.1:2004 (Acreditado)
304598	Bife de porco com crocante de farinha	Em saco de plástico estéril	Portugal		2014-01-06 00:			82129 2014-01-14 00:00:	Pesquisa de Listeria	VIDAS LMO2-AFNOR BIO 12/11-03/04
304599	Beterraba cozida fatiada	Em saco de plástico estéril	Portugal		2014-01-06 00:			80239 2014-01-14 00:00:	Contagem de Listeria	ISO 11290-2:1998/Amd.1:2004 (Acreditado)
304599	Beterraba cozida fatiada	Em saco de plástico estéril	Portugal		2014-01-06 00:			82129 2014-01-14 00:00:	Pesquisa de Listeria	VIDAS LMO2-AFNOR BIO 12/11-03/04
304605	Carne de vaca estufada com macarronet	Em saco de plástico estéril	Portugal	Laboratório, de acordo co	2014-01-06 00:			82129 2014-01-09 00:00:	Pesquisa de Listeria	VIDAS LMO2-AFNOR BIO 12/11-03/04
304605	Carne de vaca estufada com macarronet	Em saco de plástico estéril	Portugal	Laboratório, de acordo co	2014-01-06 00:			80238 2014-01-09 00:00:	Contagem de Listeria	ISO 11290-2:1998/Amd.1:2004 (Acreditado)
304608	Salada de frutas (pêssego e ananás em	Em saco de plástico estéril	Portugal	Laboratório, de acordo co	2014-01-06 00:			80238 2014-01-13 00:00:	Contagem de Listeria	ISO 11290-2:1998/Amd.1:2004 (Acreditado)
304608	Salada de frutas (pêssego e ananás em	Em saco de plástico estéril	Portugal	Laboratório, de acordo co	2014-01-06 00:			82129 2014-01-13 00:00:	Pesquisa de Listeria	VIDAS LMO2-AFNOR BIO 12/11-03/04
304613	Vitela cozida com arroz e legumes cozid	Em saco de plástico estéril	Portugal	Laboratório, de acordo co	2014-01-06 00:			82129 2013-01-09 00:00:	Pesquisa de Listeria	VIDAS LMO2-AFNOR BIO 12/11-03/04
304613	Vitela cozida com arroz e legumes cozid	Em saco de plástico estéril	Portugal	Laboratório, de acordo co	2014-01-06 00:			80238 2013-01-09 00:00:	Contagem de Listeria	ISO 11290-2:1998/Amd.1:2004 (Acreditado)
304619	Salada de tomate	Em saco de plástico estéril	Portugal	Laboratório, de acordo co	2014-01-06 00:			80238 2014-01-13 00:00:	Contagem de Listeria	ISO 11290-2:1998/Amd.1:2004 (Acreditado)

Figure 36: File resulting from changes made

Note

Important: During analyze of the data extracted from SIGALIS, it was detected that there was a lot of mandatory information for SSD2 that was not present.

Procedure #5

INSA (Biological monitoring)

It was requested to INSA the missing information. It was sent the file showed in Figure 1, which shows the microorganisms split by food matrix on each sheet.

4.3 [Salmonella in humans - species/serotype distribution](#)

4.4 [S. Enteritidis phageotypes in humans](#)

4.5 [S. Typhimurium phageotypes in humans](#)

4.6a [Antimicrobial susceptibility testing of Salmonella serovars in humans - quantitative data \[Acar diffusion method\]](#)

4.6b [Antimicrobial susceptibility testing of Salmonella serovars in humans - quantitative data \[Dilution method\]](#)

4.7 [Antimicrobial susceptibility testing of Salmonella in humans. S. Enteritidis](#)

4.8 [Antimicrobial susceptibility testing of Salmonella in humans. S. Typhimurium](#)

4.9 [Antimicrobial susceptibility testing of Salmonella in humans. Salmonella spp.](#)

4.9a [Antimicrobial susceptibility testing of Salmonella in humans. other serovars](#)

4.10 [Cut-off values for antibiotic resistance testing of Salmonella](#)

4.11 [Salmonella in poultry meat and products thereof](#)

4.12 [Salmonella spp. in milk and dairy products](#)

4.13 [Salmonella spp. in other food](#)

4.14 [Salmonella in red meat and products thereof](#)

4.15 [Salmonella serovars in food](#)

4.16 [Salmonella Enteritidis phageotypes in food](#)

4.17 [Salmonella Typhimurium phageotypes in food](#)

4.18 [S. 1,4,12:12 - phageotypes in food](#)

4.19a [Antimicrobial susceptibility testing of Salmonella serovars in food - quantitative \[Dilution method\]](#)

4.19b [Antimicrobial susceptibility testing of Salmonella serovars in food - quantitative \[Acar Diffusion method\]](#)

4.20 a-d [Antimicrobial susceptibility testing of Salmonella spp. in food \(a - b - c - d\)](#)

4.21 [Salmonella in breeding flocks of Gallus gallus](#)

4.22 [Salmonella in other birds](#)

4.23 [Salmonella in other animals](#)

4.24 [Salmonella in other poultry](#)

4.25 [Salmonella serovars in animals](#)

4.26 [Salmonella Enteritidis phageotypes in animals](#)

4.27 [Salmonella Typhimurium phageotypes in animals](#)

4.28 [S. 1,4,12:12 - phageotypes in animals](#)

4.29a [Antimicrobial susceptibility testing of Salmonella serovars in animals - quantitative data \[Dilution method\]](#)

4.29b [Antimicrobial susceptibility testing of Salmonella serovars in animals - quantitative data \[Acar diffusion method\]](#)

4.30 a-d [Antimicrobial susceptibility testing of Salmonella in poultry - qualitative data \(a - b - c - d\)](#)

Figure 37: Figure 1 - File Index sent

4.13 [Salmonella spp. in other food](#)
[back to content](#)

Categories	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Sampling unit	Sample weight	Comment	Units tested	Total units positive for Salmonella spp.	S. Enteritidis	S. Typhimurium	S. 1,4,12:12	Salmonella spp., unspecified	S. Weltevreden	S. Colorado	S. Worthington	S. Heikkinen	S. IV 43 : 24, 223 : -	S. Corvallis	S. Menaguides
Crustaceans-unspecified-cooked, at retail surveillance	INSA	Objetive	Office	Food	Import	Batch	25g	Analytical method: VID4	10	0											
Molluscan shellfish-cooked, at retail surveillance	INSA	Objetive	Office	Food	Import	Batch	25g	Analytical method: VID4	385	7				1					1		
Molluscan cephalopod, unspecified-cooked, at retail surveillance	INSA	Objetive	Office	Food	Import	Batch	25g	Analytical method: VID4	5	0											
Please add other relevant categories																					
Ready-to-eat-salads, canteen, surveillance	INSA	Objetive	Survey	Food	Domestic	single	25g	Analytical method: VID4	133	0											
Prepared dishes-sandwiches, canteen, surveillance	INSA	Objetive	Survey	Food	Domestic	single	25g	Analytical method: VID4	36	0											
Fruit, prescut, ready-to-eat, canteen, surveillance	INSA	Objetive	Survey	Food	Domestic	single	25g	Analytical method: VID4	80	0											
Ready-to-eat cooked mixed meal, canteen	INSA	Objetive	Survey	Food	Domestic	single	25g	Analytical method: VID4	908	0											
Ready-to-eat mixed meal with raw vegetables	INSA	Objetive	Survey	Food	Domestic	single	25g	Analytical method: VID4	233	0											

Figure 38: Salmonella spp in different matrixes

Procedimento #6

INSA (Biological monitoring)

With this information, it was possible to add up multiple columns to the data file.

S01	S14	S16	Pais de Origem	Source of informati	amplimg strat	Sampler	SampConte	Sample ty	sample or	mplin	it
304150	Almofadinhas de legumes	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304150	Almofadinhas de legumes	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304157	Ovas panadas com puré de batata e mo	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304157	Ovas panadas com puré de batata e mo	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304160	Bife de peru grelhado c/ arroz e feijão v	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304160	Bife de peru grelhado c/ arroz e feijão v	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304163	Arroz doce com canela	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304163	Arroz doce com canela	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304167	Ovas panadas com puré de batata e mo	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304167	Ovas panadas com puré de batata e mo	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304171	Croquetes de carne	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304171	Croquetes de carne	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304269	Filetes de pescada com arroz de tomate	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304269	Filetes de pescada com arroz de tomate	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304270	Maçã assada	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304270	Maçã assada	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304584	Almôndegas de vaca estufadas com ma	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304584	Almôndegas de vaca estufadas com ma	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304585	Alface	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304585	Alface	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304598	Bife de porco com crocante de farinha	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304598	Bife de porco com crocante de farinha	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304599	Beterraba cozida fariada	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304599	Beterraba cozida fariada	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304605	Carne de vaca estufada com macarrone	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304605	Carne de vaca estufada com macarrone	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304608	Salada de frutas (pêssego e ananás em	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304608	Salada de frutas (pêssego e ananás em	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304613	Vitela cozida com arroz e legumes coz	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304613	Vitela cozida com arroz e legumes coz	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304619	Salada de tomate	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	
304619	Salada de tomate	Em saco de plástico estéril	Portugal	INSA	Objective	HACCP and own	Surveillance	Food sample	Domestic	single	

Figure 39: Columns added in the data file depending on organism and food matrix

Procedure #7

INSA (Biological monitoring)

It was also asked for the salmonella serotypes (R07 - Pesquisa de Salmonela), when in the "R18" column is showed the value "Presente", it was also added a column " Serotipo " in the data file.

S01	S14	S16	Pais de Origem	S28_29_30	R02_03_04	R07	R12	R18	Serotipo
304838	Ameijoia- congelada - DVCE 34/201	Saco plástico fecha	Vietname	2014-01-06 00:0	2014-01-14 00:00:0	Pesquisa de Salmonel	VIDAS SLM-AFNOR BIO 12/1	Presente (1)	S.Sindelfingen
306136	Ameijoia - congelada - DVCE 83/201	Saco plástico fecha	Vietname	2014-01-13 00:0	2014-01-21 00:00:0	Pesquisa de Salmonel	VIDAS SLM-AFNOR BIO 12/1	Presente (1)	S.Weltvedren
306137	Ameijoia - congelada - DVCE 83/201	Saco plástico fecha	Vietname	2014-01-13 00:0	2014-01-21 00:00:0	Pesquisa de Salmonel	VIDAS SLM-AFNOR BIO 12/1	Presente (1)	S.Potsdam
306166	Ameijoia - congelada - DVCE 103/20	Saco plástico fecha	Vietname	2014-01-13 00:0	2014-01-21 00:00:0	Pesquisa de Salmonel	VIDAS SLM-AFNOR BIO 12/1	Presente (1)	S.Bareilly
306168	Ameijoia - congelada - DVCE 103/20	Saco plástico fecha	Vietname	2014-01-13 00:0	2014-01-21 00:00:0	Pesquisa de Salmonel	VIDAS SLM-AFNOR BIO 12/1	Presente (1)	S.IV 43:24,z23:-
314227	Ameijoia - congelada - DVCE 497/20	Saco plástico fecha	Vietname	2014-02-10 00:0	2014-02-18 00:00:0	Pesquisa de Salmonel	VIDAS SLM-AFNOR BIO 12/1	Presente (1)	S.Weltvedren
363465	Ameijoia - D.V.C.E. Nº 1895/2014 - U	Acondicionada em	Vietname	2014-10-09 00:0	2014-10-15 00:00:0	Pesquisa de Salmonel	VIDAS SLM-AFNOR BIO 12/1	Presente (1)	S.Weltvedren
365073	Moelas de frango congeladas - D.V.	Acondicionada em	Brasil	2014-10-17 00:0	2014-10-28 00:00:0	Pesquisa de Salmonel	VIDAS SLM-AFNOR BIO 12/1	Presente (1)	S.Heidelberg
377543	Moelas de frango congeladas - DVC	Cinco unidades em	Brasil	2014-12-11 00:0	2014-12-19 00:00:0	Pesquisa de Salmonel	VIDAS SLM-AFNOR BIO 12/1	Presente	S.Heidelberg

Figure 40: Salmonella serotypes list - INSA data

6. INSA Chemical contaminants

In the domain of chemical contaminants, INSA presented 3 different data groups: TDS; "Cabbages"; and Speciation of Arsenic.

6.1. TDS data

INSA data of chemical contaminants for any of food groups had the SSD1 structure. However it was still needed some changes.

S01_Lab sample code	S03_Language	S04_Country of sampling	S05_Area of sampling	S06_Country of origin	S07_Area of origin	S08_Country of product	S14_Product description	S22_23_24_Product on date	S25_26_27_Epiry date	S28_29_30_Sampling date	S33_Sampling strategy
330833	Portuguese	Portugal		Portugal		Portugal	Wheat bread and rolls, white (refined flour)				Selective sampling
330833	Portuguese	Portugal		Portugal		Portugal	Wheat bread and rolls, white (refined flour)				Selective sampling
378967	Portuguese	Portugal		Portugal		Portugal	Crackers				Selective sampling
378967	Portuguese	Portugal		Portugal		Portugal	Crackers				Selective sampling
378967	Portuguese	Portugal		Portugal		Portugal	Crackers				Selective sampling
330840	Portuguese	Portugal		Portugal		Portugal	Pasta and similar products				Selective sampling
330840	Portuguese	Portugal		Portugal		Portugal	Pasta and similar products				Selective sampling
330840	Portuguese	Portugal		Portugal		Portugal	Pasta and similar products				Selective sampling
330841	Portuguese	Portugal		Portugal		Portugal	Biscuits, sweet, plain				Selective sampling
330841	Portuguese	Portugal		Portugal		Portugal	Biscuits, sweet, plain				Selective sampling
330841	Portuguese	Portugal		Portugal		Portugal	Biscuits, sweet, plain				Selective sampling
351784	Portuguese	Portugal		Portugal		Portugal	Sponge cake				Selective sampling
351784	Portuguese	Portugal		Portugal		Portugal	Sponge cake				Selective sampling
351784	Portuguese	Portugal		Portugal		Portugal	Sponge cake				Selective sampling
418230	Portuguese	Portugal		Portugal		Portugal	Muffins				Selective sampling
418230	Portuguese	Portugal		Portugal		Portugal	Muffins				Selective sampling
418230	Portuguese	Portugal		Portugal		Portugal	Muffins				Selective sampling
330844	Portuguese	Portugal		Portugal		Portugal	Various pastry				Selective sampling
330844	Portuguese	Portugal		Portugal		Portugal	Various pastry				Selective sampling
330844	Portuguese	Portugal		Portugal		Portugal	Various pastry				Selective sampling
334934	Portuguese	Portugal		Portugal		Portugal	Processed and mixed breakfast cereals				Selective sampling
334934	Portuguese	Portugal		Portugal		Portugal	Processed and mixed breakfast cereals				Selective sampling
334934	Portuguese	Portugal		Portugal		Portugal	Processed and mixed breakfast cereals				Selective sampling
334935	Portuguese	Portugal		Portugal		Portugal	Popcorn (maize, popped)				Selective sampling
334935	Portuguese	Portugal		Portugal		Portugal	Popcorn (maize, popped)				Selective sampling
334935	Portuguese	Portugal		Portugal		Portugal	Popcorn (maize, popped)				Selective sampling

Figure 41: INSA TDS data

Procedure #1

INSA (Chemical contaminants): TDS Data

In order to populate the column "S28_29_30_Sampling date", and so to report only samples of 2014 as the year of the collection file, the column "S01_Lab sample code" corresponding to column "Sigalis" file "TDS_Resultados_Annex 1" where are present all samples taken from the TDS, and the respective sample number. With the corresponding value of "Sigalis" column, it withdrew the value in the "TDS sample no." and their "campaign".

Campañ	National (N) or Regional R or Sazonal (S)	Signalis	Grupo	TDS sample No.	TDS sample name (S.12 full text)	FoodEx2 code (S.12)	Analyti	LOD (R.1)	LOQ (R.1)	analytical resi	SD (R.21)
1	N	351789	5	14	Beans, meat, and vegetables meal	A03VTSPT6	Mn				
1	N	351789	5	14	Beans, meat, and vegetables meal	A03VTSPT6	Se				
1	N	351789	5	14	Beans, meat, and vegetables meal	A03VTSPT6	Hg	0.3	0.8	<LOQ	
1	N	351790	5	15	Beans, meat, and vegetables meal	A03VTSPT7	Cu				
1	N	351790	5	15	Beans, meat, and vegetables meal	A03VTSPT7	Mn				
1	N	351790	5	15	Beans, meat, and vegetables meal	A03VTSPT7	Se				
1	N	351790	5	15	Beans, meat, and vegetables meal	A03VTSPT7	Hg				
0	N	376468	5	16	Meat based dishes	A03VV	Cu				
0	N	376468	5	16	Meat based dishes	A03VV	Mn				
0	N	376468	5	16	Meat based dishes	A03VV	Se				
0	N	376468	5	16	Meat based dishes	A03VV	Hg	0.4	1.2	<LOQ	
1	N	351791	5	17	Meat burger (no sandwich)	A03XF	Cu	1.26	48.45	1176	
1	N	351791	5	17	Meat burger (no sandwich)	A03XF	Mn	1.65	48.45	1182	
1	N	351791	5	17	Meat burger (no sandwich)	A03XF	Se	1.55	48.45	114	
1	N	351791	5	17	Meat burger (no sandwich)	A03XF	Hg				2.1
1	N	351792	5	18	Meat balls	A03XG	Cu	1.26	48.45	1678	
1	N	351792	5	18	Meat balls	A03XG	Mn	1.65	48.45	2018	
1	N	351792	5	18	Meat balls	A03XG	Se	1.55	48.45	88	
1	N	351792	5	18	Meat balls	A03XG	Hg	0.5	1.4	<LOQ	
4	R		5	19	Fish and seafood based dishes	A03KJ	Cu				
4	R		5	19	Fish and seafood based dishes	A03KJ	Mn				
4	R		5	19	Fish and seafood based dishes	A03KJ	Se				

Figure 42: TDS sample collection information

Procedure #2

INSA (Chemical contaminants): TDS Data

With these values, and using the file "Annex 1-Shopping List_SOP01 PT" in the "Amostra composta" or "Código" (this was used when the description of the matrix did not correspond to indicated or when it could not find the sample number TDS column " Amostra composta ") checking whether the year corresponded to 2014. If not eliminated corresponded to the line in question in the data file.

Amostra composta	Código	Subamostra	Campañ	Dia	Mês	Ano	Loja
20-Seafood based dishes-A03XMSPT15	GL-COO-2-2014-13-119-1	Coelho	2	16	9	2014	Outros 2 - Talho
20-Seafood based dishes-A03XMSPT15	GL-COO-2-2014-13-119-2	Coelho	2	16	9	2014	Outros 2 - Talho
20-Seafood based dishes-A03XMSPT15	GL-COO-2-2014-13-119-3	Coelho	2	16	9	2014	Outros 2 - Talho
20-Seafood based dishes-A03XMSPT15	GL-COO-2-2014-13-119-4	Coelho	2	16	9	2014	Outros 2 - Talho
20-Seafood based dishes-A03XMSPT15	GL-COO-2-2014-13-119-5	Coelho	2	16	9	2014	Continente 3
20-Seafood based dishes-A03XMSPT15	GL-COO-2-2014-13-119-6	Coelho	2	16	9	2014	Continente 3
20-Seafood based dishes-A03XMSPT15	GL-COO-2-2014-13-119-7	Coelho	2	16	9	2014	Continente 3
20-Seafood based dishes-A03XMSPT15	GL-COO-2-2014-13-119-8	Coelho	2	16	9	2014	Continente 3
20-Seafood based dishes-A03XMSPT15	GL-COO-2-2014-13-119-9	Coelho	2	16	9	2014	Pingo Doce 10
20-Seafood based dishes-A03XMSPT15	GL-COO-2-2014-13-119-10	Coelho	2	16	9	2014	Pingo Doce 10
20-Seafood based dishes-A03XMSPT15	GL-COO-2-2014-13-119-11	Coelho	2	16	9	2014	Pingo Doce 10
20-Seafood based dishes-A03XMSPT15	GL-COO-2-2014-13-119-12	Coelho	2	16	9	2014	Pingo Doce 10
21-Prepared fish salad-A03XP	GL-COO-2-2014-5-21-1	SALADA DE ATUM	2	16	9	2014	Pingo Doce 10
21-Prepared fish salad-A03XP	GL-COO-2-2014-5-21-2	SALADA DE ATUM	2	16	9	2014	Pingo Doce 10
21-Prepared fish salad-A03XP	GL-COO-2-2014-5-21-3	SALADA DE ATUM	2	16	9	2014	Pingo Doce 10
21-Prepared fish salad-A03XP	GL-COO-2-2014-5-21-4	SALADA DE ATUM	2	16	9	2014	Pingo Doce 10
21-Prepared fish salad-A03XP	GL-COO-2-2014-5-21-5	SALADA DE ATUM	2	16	9	2014	Continente 3
21-Prepared fish salad-A03XP	GL-COO-2-2014-5-21-6	SALADA DE ATUM	2	16	9	2014	Continente 3
21-Prepared fish salad-A03XP	GL-COO-2-2014-5-21-7	SALADA DE ATUM	2	16	9	2014	Continente 3

Figure 43: TDS sample collection date information

6.2. Speciation data (study in vegetables)

Note

Important: These files were not changed, only requests for information when a field was mandatory in SSD2 and the information was not present in the data.

7. INSA Additives

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
S01	S14	S16	S21	S28_29_30	R06	R02_03_04	R07	R12	R13	R18	R18_2	R28	TIPO_ANALISE	ESTADO_ANALISE	OBSERVACOES_ANALISE	OBSE
318412	Água tônica_FAPAS 03114		2014-02-28 00	8004	NULL	Aspartam HPLC	mg/L	317					Qualidade	R		
318412	Água tônica_FAPAS 03114		2014-02-28 00	8001	NULL	Acessulfai HPLC	mg/L	175					Qualidade	R		
338601			2014-06-11 00	8002	NULL	Ácido sórt HPLC	mg/L	116					Formação	R		
338601			2014-06-11 00	8004	NULL	Aspartam HPLC	mg/L	67					Formação	R		
338601			2014-06-11 00	8001	NULL	Acessulfai HPLC	mg/L	35					Formação	R		
338612	Frutis Ananás		2014-06-11 00	8002	NULL	Ácido sórt HPLC	mg/L	123					Formação	R		
338612	Frutis Ananás		2014-06-11 00	8004	NULL	Aspartam HPLC	mg/L	34					Formação	R		
338612	Frutis Ananás		2014-06-11 00	8001	NULL	Acessulfai HPLC	mg/L	43					Formação	R		
338613	Frutis Limão		2014-06-11 00	8002	NULL	Ácido sórt HPLC	mg/L	105					Formação	R		
338613	Frutis Limão		2014-06-11 00	8004	NULL	Aspartam HPLC	mg/L	22					Formação	R		
338613	Frutis Limão		2014-06-11 00	8001	NULL	Acessulfai HPLC	mg/L	10					Formação	R		
338617	Marmelada (Solaya)		2014-06-11 00	8002	NULL	Ácido sórt Não Aplici mg/Kg		342					Formação	R		
338622	Marmelada (Dia-marmelada ex		2014-06-11 00	8002	NULL	Ácido sórt Não Aplici mg/Kg		405					Formação	R		
338623	Marmelada (Confeitaria da aui		2014-06-11 00	8002	NULL	Ácido sórt Não Aplici mg/Kg		391					Formação	R		
338625	Marmelada (Casa de mateus 2€		2014-06-11 00	8002	NULL	Ácido sórt Não Aplici mg/Kg							Formação	S		
338629	Marmelada (Pingo doce – doce		2014-06-11 00	8002	NULL	Ácido sórt Não Aplici mg/Kg							Formação	S		
338634	Marmelada (Pingo doce- Marm		2014-06-11 00	8002	NULL	Ácido sórt Não Aplici mg/Kg		491					Formação	R		
338636	logurte (Adágio – Pêssego e ch		2014-06-11 00	8002	NULL	Ácido sórt HPLC	mg/Kg	117					Formação	R		
338638	logurte (Adágio – Maçã e anani		2014-06-11 00	8002	NULL	Ácido sórt HPLC	mg/Kg	97					Formação	R		
338639	Ketchup (Savora)		2014-06-11 00	8002	NULL	Ácido sórt HPLC	mg/Kg	304					Formação	R		
338640	Ketchup (Continente)		2014-06-11 00	8002	NULL	Ácido sórt HPLC	mg/Kg	641					Formação	R		
338641	Maionese (Calvé magra)		2014-06-11 00	8002	NULL	Ácido sórt HPLC	mg/Kg	675					Formação	R		
338642	Maionese (Continente)		2014-06-11 00	8002	NULL	Ácido sórt HPLC	mg/Kg	619					Formação	R		
338643	Pão (Panrico)		2014-06-11 00	8002	NULL	Ácido sórt HPLC	mg/Kg	1298					Formação	R		

Figure 44: 2014 extracted SIGALIS file with analyzed food additives

Procedure #1

INSA (Additives)

Being the column "R02_03_04" only with null values and corresponding to the date of analysis it was necessary to request this information.

It was added the following columns: "Data de análise", "toma de amostra" and "unidade da toma".

Procedure #2

INSA (Additives)

! Importante: It was found (the blue box - Figure 39) that there are some parameters without results, after analysis with the responsible of the additives domain, it was identified some samples that were not present all analyzed parameters.

These results were added to correspond to the lines in red in the figure below.

o de Rik	Mod	Cum mg/Kg	Zn mg/Kg	Alfa B1	Alfa B2	Alfa G1	Alfa G2	Zeara	Fumonisiná	Fumonisiná	Ocratoxin	Yomotoxin	Hg	Pb mg/Kg	Cd mg/Kg	Conformid	País de Ori
16		17,44	116,86	N	N	N	N				N	N	N	N	N	C	Portugal
16		25,03	125,15	N	N	N	N	N			N	N	N	N	N	C	Portugal

Figure 47: Chemical contaminants reporting parameters

Note

Important: It was verified that for this domain were used data from 2 labs, INIAV and NEOTRON. For each different approach were used.

8.1. CAA / INIAV

Procedure #1

CAA / INIAV

The "Nº Boletim" and the column "Nº Selo" at collection file make connection with the column "Amostra nº" and "Refª Externa" from the analytical results file sent by INIAV respectively.

ID	Entidade Col	Colheita	Data Valid	Entrada Dt	Nº Selo	Requisiçã	Laboratór	Data Envi	Entrada lal	Conclusã	Receço É	Nº Boletim	Amostra	imento Medicamei
787	DSAVFLVT	21-Fev-14	30-Mar-14	13-Mar-14	A0024304		INIAV	21-Mar-14	21-Mar-14	14-Abr-14	16-Abr-14	HP-14-00723QGT01	matéria-prima (sêma de trigo)	FALSE
788	DSAVFLVT	21-Fev-14	21-Jun-14	13-Mar-14	A0024520		INIAV	21-Mar-14	21-Mar-14	14-Abr-14	16-Abr-14	HP-14-00724QGT01	matéria-prima (farelos)	FALSE
789	DSAVFLVT	21-Fev-14	21-Mai-14	13-Mar-14	A0024307		INIAV	25-Mar-14	25-Mar-14	14-Abr-14	16-Abr-14	HP-14-00784QGT01	matéria-prima (farelos)	FALSE
790	DSAVFLVT	20-Fev-14	20-Ago-14	13-Mar-14	A0024530		INIAV	25-Mar-14	25-Mar-14	14-Abr-14	16-Abr-14	HP-14-00785QGT01	matéria-prima (germen milho)	FALSE
791	DSAVFLVT	21-Fev-14	14-Mai-14	13-Mar-14	A0024524		INIAV	25-Mar-14	25-Mar-14	14-Abr-14	16-Abr-14	HP-14-00786QGT01	matéria-prima (sêma trigo)	FALSE
792	DSAVFLVT	20-Fev-14	28-Fev-15	13-Mar-14	A0024529		INIAV	25-Mar-14	25-Mar-14	14-Abr-14	16-Abr-14	HP-14-00767QGT01	matéria-prima (o.integral)	FALSE
793	DSAVFLVT	27-Fev-14	27-Mai-14	13-Mar-14	A0024548		INIAV	21-Mar-14	21-Mar-14	14-Abr-14	16-Abr-14	HP-14-00722QGT01	alimento ovinos leite	FALSE
794	DSAVFLVT	27-Fev-14	28-Abr-14	13-Mar-14	A0024302		INIAV	25-Mar-14	25-Mar-14	15-Abr-14	16-Abr-14	HP-14-00756QGT01	alimento vacas leiteiras	FALSE
795	DSAVPALG	21-Fev-14	21-Jun-14	26-Fev-14	A0022539		INIAV	28-Fev-14	28-Fev-14	11-Abr-14	15-Abr-14	HP-14-00524QGT01	matéria-prima (sal)	FALSE
796	DSAVFLVT	16-Jan-14	14-Abr-14	24-Jan-14	A0023470		INIAV	27-Jan-14	27-Jan-14	10-Abr-14	15-Abr-14	HP-14-00275QGT01	alimento suínos iniciação	FALSE
797	DSAVFLVT	14-Jan-14	13-Jul-14	24-Jan-14	A0023464		INIAV	27-Jan-14	27-Jan-14	10-Abr-14	15-Abr-14	HP-14-00277QGT01	alimento suínos iniciação	FALSE

Figure 48: Collection data file from CAA

Amostra nº	Refª Externa	Matriz	Testes	Resultado	Unid.	Subst.	Datas
HP-14-00195	Selo nº A0022326	Filho	Resquisa de Aflatoxinas total - Método de triagem por ELISA	Não detetado (LD: 1.8 µg/kg)		Aflatoxinas total	000
HP-14-00272	Selo A0023443	Vimento composto para suínos de iniciação	Resquisa de Aflatoxinas total - Método de triagem por ELISA	Não detetado (LD: 1.8 µg/kg)		Aflatoxinas total	000
HP-14-00275	Selo A0023470	Vimento composto para suínos de iniciação	Determinação do teor de cádmio, cobre e zinco por Absorção Atómica de Chama	24.57	mg/kg	Cádmio	160
HP-14-00275	Selo A0023470	Vimento composto para suínos de iniciação	Determinação do teor de cádmio, cobre e zinco por Absorção Atómica de Chama	125.90	mg/kg	Zinco	160
HP-14-00275	Selo A0023470	Vimento composto para suínos de iniciação	Resquisa de Aflatoxinas total - Método de triagem por ELISA	Não detetado (LD: 1.8 µg/kg)		Aflatoxinas total	160
HP-14-00275	Selo A0023470	Vimento composto para suínos de iniciação	Resquisa de Zearalenona - Método de triagem por ELISA	Não detetado (LD: 3.5 µg/kg)		Zearalenona	160
HP-14-00275	Selo A0023470	Vimento composto para suínos de iniciação	Resquisa de Fumonisinas - Método de triagem por ELISA	Não detetado (LD: 50.0 µg/kg)		Fumonisinas	160
HP-14-00276	Selo A0023460	Vimento composto para suínos de iniciação	Determinação do teor de cádmio, cobre e zinco por Absorção Atómica de Chama	48.13	mg/kg	Cádmio	140
HP-14-00276	Selo A0023460	Vimento composto para suínos de iniciação	Determinação do teor de cádmio, cobre e zinco por Absorção Atómica de Chama	254.17	mg/kg	Zinco	140
HP-14-00276	Selo A0023460	Vimento composto para suínos de iniciação	Resquisa de Zearalenona - Método de triagem por ELISA	Não detetado (LD: 3.5 µg/kg)		Zearalenona	140
HP-14-00276	Selo A0023460	Vimento composto para suínos de iniciação	Resquisa de Fumonisinas - Método de triagem por ELISA	Não detetado (LD: 50.0 µg/kg)		Fumonisinas	140
HP-14-00276	Selo A0023460	Vimento composto para suínos de iniciação	Resquisa de Aflatoxinas - Método de confirmação por HPLC	Aflatoxina B1: Não detetado (LD: 1.0 µg/kg)		Aflatoxina B1	140
HP-14-00276	Selo A0023460	Vimento composto para suínos de iniciação	Resquisa de Aflatoxinas - Método de confirmação por HPLC	Aflatoxina B2: Não detetado (LD: 1.0 µg/kg)		Aflatoxina B2	140
HP-14-00276	Selo A0023460	Vimento composto para suínos de iniciação	Resquisa de Aflatoxinas - Método de confirmação por HPLC	Aflatoxina G1: Não detetado (LD: 1.0 µg/kg)		Aflatoxina G1	140
HP-14-00276	Selo A0023460	Vimento composto para suínos de iniciação	Resquisa de Aflatoxinas - Método de confirmação por HPLC	Aflatoxina G2: Não detetado (LD: 1.0 µg/kg)		Aflatoxina G2	140
HP-14-00277	Selo A0023464	Vimento composto para suínos de iniciação	Determinação do teor de cádmio, cobre e zinco por Absorção Atómica de Chama	23.96	mg/kg	Cádmio	140
HP-14-00277	Selo A0023464	Vimento composto para suínos de iniciação	Determinação do teor de cádmio, cobre e zinco por Absorção Atómica de Chama	153.34	mg/kg	Zinco	140
HP-14-00277	Selo A0023464	Vimento composto para suínos de iniciação	Resquisa de Aflatoxinas total - Método de triagem por ELISA	Não detetado (LD: 1.8 µg/kg)		Aflatoxinas total	140
HP-14-00277	Selo A0023464	Vimento composto para suínos de iniciação	Resquisa de Zearalenona - Método de triagem por ELISA	Não detetado (LD: 3.5 µg/kg)		Zearalenona	140
HP-14-00277	Selo A0023464	Vimento composto para suínos de iniciação	Resquisa de Fumonisinas - Método de triagem por ELISA	Não detetado (LD: 50.0 µg/kg)		Fumonisinas	140
HP-14-00278	Selo A0023471	Vimento composto para suínos de englobamento	Resquisa de Aflatoxinas total - Método de triagem por ELISA	Não detetado (LD: 1.8 µg/kg)		Aflatoxinas total	160
HP-14-00278	Selo A0023471	Vimento composto para suínos de englobamento	Determinação do teor de cádmio e chumbo por absorção atómica de chama (FAAS)	Não detetado (Inferior a 1003 µg/kg)		Cádmio	160
HP-14-00278	Selo A0023471	Vimento composto para suínos de englobamento	Determinação do teor de cádmio e chumbo por absorção atómica de chama (FAAS)	Não detetado (Inferior a 1003 µg/kg)		Chumbo	160
HP-14-00278	Selo A0023471	Vimento composto para suínos de englobamento	Determinação do teor de cádmio, cobre e zinco por Absorção Atómica de Chama	20.14	mg/kg	Cádmio	160
HP-14-00278	Selo A0023471	Vimento composto para suínos de englobamento	Determinação do teor de cádmio, cobre e zinco por Absorção Atómica de Chama	136.26	mg/kg	Zinco	160
HP-14-00278	Selo A0023471	Vimento composto para suínos de englobamento	Resquisa de Zearalenona - Método de triagem por ELISA	Não detetado (LD: 3.5 µg/kg)		Zearalenona	160
HP-14-00278	Selo A0023471	Vimento composto para suínos de englobamento	Resquisa de Doratoxina A - Método de triagem por ELISA	Não detetado (LD: 2.5 µg/kg)		Doratoxina A	160

Figure 49: Analytical results file sent by INIAV

Procedure #2

CAA / INIAV

As in the collection file, the analytical results showed in INIAV file in the "Testes" column, shows all tests performed for each sample in the different domains. The lines that did not correspond to previously selected parameters were eliminated.

Procedimento #3

CAA / INIAV

The connection between the two files is also confirmed by the parameter in various collection file columns and in the column "Subst." from the collection file. And also by "Amostra" column (harvest) and "Matrix" (analytical results), the purple boxes below.

8.2. CAA / Neutron

The analytical results from the NEOTRON from CAA plan were sent to INSA as a form of analytical report, shown in the figure below.



Page 1 of 2

CUSTOMER
DGAV - Alimentacao Animal (DSNA)
Tapada da Ajuda - Edificio 1
1349-018 LISBOA PORTOGALLO

Modena (Italy), li 17/04/2014

Analysis beginning date
 31/03/2014

TEST REPORT nr. 14C18014-In-0

SAMPLE 14C18014

Description provided by Customer: VACAS LEITEIRAS - ALIMENTO COMPOSTO Batch code:: A0024995 MADRP DGV - DAV LEIRIA
 Extranet request n° N0253/14 del 24/03/2014 18.05.35. - Sample arrived on the 31/03/2014. - Sampling by: Customer. Transport by: Carrier.
 Sample Condition on Receipt: Room temperature

ANALYSIS DESCRIPTION	RESULT	U	REL. %	UNIT OF MEASURE	LO	LD	METHOD	ANALYTICAL TECHNIQUE	ANALYSIS REFERENCE
COCCIDIOSTATS									
Decoquinat	< LQ			µg/kg	10		* FARM-Ac-torio	LC-MS/MS	16/04/2014
Diofazuil	< LQ			µg/kg	10		* FARM-Ac-torio	LC-MS/MS	16/04/2014
Lasaloid A	< LQ			µg/kg	50		* FARM-Ac-torio	LC-MS/MS	16/04/2014
Maduramicin	< LQ			µg/kg	10		* FARM-Ac-torio	LC-MS/MS	16/04/2014
Monensin	700	± 119	107	µg/kg	50		* FARM-Ac-torio	LC-MS/MS	16/04/2014
Narasin	< LQ			µg/kg	50		* FARM-Ac-torio	LC-MS/MS	16/04/2014
Nicarbazine	17	± 8	116	µg/kg	10		02(S20) rev11 2012		16/04/2014
Salinomycin	< LQ			µg/kg	50		* FARM-Ac-torio	LC-MS/MS	16/04/2014
AFLATOXINS B1, B2, G1, G2									
Aflatoxin B1	< LQ			µg/kg	0,25		03(S130) Rev.4 2013		04/04/2014
Aflatoxin B2	< LQ			µg/kg	0,25		03(S130) Rev.4 2013		04/04/2014
Aflatoxin G1	< LQ			µg/kg	0,25		03(S130) Rev.4 2013		04/04/2014
Aflatoxin G2	< LQ			µg/kg	0,25		03(S130) Rev.4 2013		04/04/2014

Continued...

Figure 50: NEOTRON analytical report

⚙ Procedure #1

CAA / NEOTRON

The data belonging to the collection file subdivided with the data only from NEOTRON, columns parameters were transposed into a single column with the results and units (the green box).

⚙ Procedure #2

CAA / NEOTRON

With the analytical reports and using the fields marked and the "Nº Boletim" column, and "Nº Selo" and the column marked in green, were performed the verification of the results.

Colheita	Data Validade	Entrada DAA	Nº Selo	Requisição	Laboratório	Data Envio	Nº Boletim	Amostra	Alimento Medicamentos	Mod	Parametro	Resultado	unidade	Conformidade
2014-01-12 00:00:00	2014-07-07 00:00:00	2013-12-18 00:00:00	A0024672	377/13	NEOTRON	2013-12-31 00:00:00	14A00620	alimento vitelos	FALSE	E_4	Hg	N	mg/kg	C
2014-01-12 00:00:00	2014-07-07 00:00:00	2013-12-18 00:00:00	A0024672	377/13	NEOTRON	2013-12-31 00:00:00	14A00620	alimento vitelos	FALSE	E_4	Pb mg/Kg	0,015	mg/kg	C
2014-01-12 00:00:00	2014-07-07 00:00:00	2013-12-18 00:00:00	A0024672	377/13	NEOTRON	2013-12-31 00:00:00	14A00620	alimento vitelos	FALSE	E_4	Cd mg/Kg	0,013	mg/kg	C
2014-01-05 00:00:00	2014-01-24 00:00:00	2014-01-02 00:00:00	A0020999	17/14	NEOTRON	2014-01-07 00:00:00	14A03990	alimento suinos engorda	FALSE	F_16	Cu mg/Kg	15	mg/kg	C
2014-01-05 00:00:00	2014-01-24 00:00:00	2014-01-02 00:00:00	A0020999	17/14	NEOTRON	2014-01-07 00:00:00	14A03990	alimento suinos engorda	FALSE	F_16	Zn mg/Kg	99	mg/kg	C
2014-01-05 00:00:00	2014-01-24 00:00:00	2014-01-02 00:00:00	A0020999	17/14	NEOTRON	2014-01-07 00:00:00	14A03990	alimento suinos engorda	FALSE	F_16	Hg	N	mg/kg	C
2014-01-05 00:00:00	2014-01-24 00:00:00	2014-01-02 00:00:00	A0020999	17/14	NEOTRON	2014-01-07 00:00:00	14A03990	alimento suinos engorda	FALSE	F_16	Pb mg/Kg	0,243	mg/kg	C
2014-01-05 00:00:00	2014-01-24 00:00:00	2014-01-02 00:00:00	A0020999	17/14	NEOTRON	2014-01-07 00:00:00	14A03990	alimento suinos engorda	FALSE	F_16	Cd mg/Kg	0,065	mg/kg	C
2014-01-15 00:00:00	2014-03-08 00:00:00	2014-01-05 00:00:00	A0023638	54/14	NEOTRON	2014-01-13 00:00:00	14A08463	alimento suinos engorda	FALSE	F_16	Cu mg/Kg	16	mg/kg	C
2014-01-15 00:00:00	2014-03-08 00:00:00	2014-01-05 00:00:00	A0023638	54/14	NEOTRON	2014-01-13 00:00:00	14A08463	alimento suinos engorda	FALSE	F_16	Zn mg/Kg	122	mg/kg	C
2014-01-15 00:00:00	2014-03-08 00:00:00	2014-01-05 00:00:00	A0023638	54/14	NEOTRON	2014-01-13 00:00:00	14A08463	alimento suinos engorda	FALSE	F_16	Hg	N	mg/kg	C
2014-01-15 00:00:00	2014-03-08 00:00:00	2014-01-05 00:00:00	A0023638	54/14	NEOTRON	2014-01-13 00:00:00	14A08463	alimento suinos engorda	FALSE	F_16	Pb mg/Kg	0,082	mg/kg	C
2014-01-15 00:00:00	2014-03-08 00:00:00	2014-01-05 00:00:00	A0023638	54/14	NEOTRON	2014-01-13 00:00:00	14A08463	alimento suinos engorda	FALSE	F_16	Cd mg/Kg	0,022	mg/kg	C
2014-01-09 00:00:00	2014-02-06 00:00:00	2014-01-05 00:00:00	A0023133	73/14	NEOTRON	2014-01-13 00:00:00	14A08466	alimento suinos engorda	FALSE	F_16	Cu mg/Kg	24	mg/kg	C
2014-01-09 00:00:00	2014-02-06 00:00:00	2014-01-05 00:00:00	A0023133	73/14	NEOTRON	2014-01-13 00:00:00	14A08466	alimento suinos engorda	FALSE	F_16	Zn mg/Kg	137	mg/kg	C
2014-01-09 00:00:00	2014-02-06 00:00:00	2014-01-05 00:00:00	A0023133	73/14	NEOTRON	2014-01-13 00:00:00	14A08466	alimento suinos engorda	FALSE	F_16	Hg	N	mg/kg	C
2014-01-09 00:00:00	2014-02-06 00:00:00	2014-01-05 00:00:00	A0023133	73/14	NEOTRON	2014-01-13 00:00:00	14A08466	alimento suinos engorda	FALSE	F_16	Pb mg/Kg	0,105	mg/kg	C
2014-01-09 00:00:00	2014-02-06 00:00:00	2014-01-05 00:00:00	A0023133	73/14	NEOTRON	2014-01-13 00:00:00	14A08466	alimento suinos engorda	FALSE	F_16	Cd mg/Kg	0,040	mg/kg	C
2014-01-08 00:00:00	2014-03-31 00:00:00	2014-02-05 00:00:00	A0023147	81/14	NEOTRON	2014-01-13 00:00:00	14A08478	alimento galinhas poede	FALSE	F_7	Afla B1	N	mg/kg	C
2014-01-08 00:00:00	2014-03-31 00:00:00	2014-02-05 00:00:00	A0023147	81/14	NEOTRON	2014-01-13 00:00:00	14A08478	alimento galinhas poede	FALSE	F_7	Afla B2	N	mg/kg	C
2014-01-08 00:00:00	2014-03-31 00:00:00	2014-02-05 00:00:00	A0023147	81/14	NEOTRON	2014-01-13 00:00:00	14A08478	alimento galinhas poede	FALSE	F_7	Afla G1	N	mg/kg	C
2014-01-08 00:00:00	2014-03-31 00:00:00	2014-02-05 00:00:00	A0023147	81/14	NEOTRON	2014-01-13 00:00:00	14A08478	alimento galinhas poede	FALSE	F_7	Afla G2	N	mg/kg	C
2014-01-09 00:00:00	2014-03-04 00:00:00	2014-02-05 00:00:00	A0023169	74/14	NEOTRON	2014-01-13 00:00:00	14A08498	alimento suinos engorda	FALSE	F_16	Cu mg/Kg	20,1	mg/kg	C
2014-01-09 00:00:00	2014-03-04 00:00:00	2014-02-05 00:00:00	A0023169	74/14	NEOTRON	2014-01-13 00:00:00	14A08498	alimento suinos engorda	FALSE	F_16	Zn mg/Kg	128	mg/kg	C
2014-01-09 00:00:00	2014-03-04 00:00:00	2014-02-05 00:00:00	A0023169	74/14	NEOTRON	2014-01-13 00:00:00	14A08498	alimento suinos engorda	FALSE	F_16	Hg	N	mg/kg	C
2014-01-09 00:00:00	2014-03-04 00:00:00	2014-02-05 00:00:00	A0023169	74/14	NEOTRON	2014-01-13 00:00:00	14A08498	alimento suinos engorda	FALSE	F_16	Pb mg/Kg	0,094	mg/kg	C
2014-01-09 00:00:00	2014-03-04 00:00:00	2014-02-05 00:00:00	A0023169	74/14	NEOTRON	2014-01-13 00:00:00	14A08498	alimento suinos engorda	FALSE	F_16	Cd mg/Kg	0,051	mg/kg	C
2014-01-08 00:00:00	2014-04-03 00:00:00	2014-01-05 00:00:00	A0023136	72/14	NEOTRON	2014-01-13 00:00:00	14A08474	alimento suinos engorda	FALSE	F_16	Cu mg/Kg	17,4	mg/kg	C
2014-01-08 00:00:00	2014-04-03 00:00:00	2014-01-05 00:00:00	A0023136	72/14	NEOTRON	2014-01-13 00:00:00	14A08474	alimento suinos engorda	FALSE	F_16	Zn mg/Kg	61	mg/kg	C
2014-01-08 00:00:00	2014-04-03 00:00:00	2014-01-05 00:00:00	A0023136	72/14	NEOTRON	2014-01-13 00:00:00	14A08474	alimento suinos engorda	FALSE	F_16	Hg	N	mg/kg	C
2014-01-08 00:00:00	2014-04-03 00:00:00	2014-01-05 00:00:00	A0023136	72/14	NEOTRON	2014-01-13 00:00:00	14A08474	alimento suinos engorda	FALSE	F_16	Pb mg/Kg	0,076	mg/kg	C

Figure 51: File subdivided with data collection and laboratory from CAA/NEOTRON