



EURL FOR PESTICIDE RESIDUES IN FRUITS AND VEGETABLES (EURL-FV)

Activity Programme 2013

FUNCTIONS AND DUTIES

The functions and duties of the European Commission Reference Laboratory are described in Article 32 of the EU Regulation No 882/2004.

These functions and duties together with the Additional Specifications are gathered together into four groups of activities (A, B, C and D) as follows:

- A. General tasks
- B. Development and validation of analytical methods
- C. Quality assurance and quality control programme; including the organisation of Proficiency Tests and Intercomparative Studies
- D. Technical and scientific support to DG SANCO, EU Member States and third Countries including the organisation of Courses and Workshops

Acronyms

ADVG: Advisory Group

EFSA: European Food Safety Authority

EFTA: European Free Trade Association

EURL-FV/CF/AO/SRM: European Union

Reference Laboratory-Fruits and
Vegetables/Cereals and Feeding stuff/ Food
of Animal Origin/Single Residue Methods.

FVO: Food and Veterinary Office

JRC: Joint Research Centre

NRL: National Reference Laboratory

PT: Proficiency Test

QC: Quality Control

QCG: Quality Control Group

OfL: Official Laboratory

QS: Quality System



2013 Activity Programme.

The four groups of activities mentioned above are developed into different tasks distributed as follows:

A - GENERAL TASKS.

A1. Management of administrative duties.

Follow up tasks:

-The Quality System (QS) implemented (composed of Dr. Antonio Valverde García and Dr. Tuija Pihlström) will continue overseeing, controlling and reporting upon all the activities of the work programme, ensuring they are executed at the right time and in the correct way. It will also make sure that the budget is properly allocated. The QS will supervise all reports and meeting minutes and will keep a summary of all documents ready for external audits.

-Evaluation sheets as feedback from National Reference Laboratories (NRLs) and Official Laboratories (OfLs) will be presented to DG SANCO when requested, as well as feedback questionnaires for each Proficiency Test given by the participants.

-Harmonization of approaches among the NRLs and OfLs as well as preparation and publication of technical reports. Additionally, collaboration with OfLs responsible for food analysis in third countries; this coordination task will be performed via continuous phone contact, e-mail and the EURL website (<http://www.eurl-pesticides.eu>), especially through the QC Panel (see task A2).

-Collaboration with other EURLs and DG SANCO. Constant communication will be established through e-mail, phone calls or meetings.

New task in 2013:

-Preparation and justification of costs of the Joint EURL-AO/CF/SRM/FV Workshop for Pesticide Residues in Food.

Performance Indicators:

-Other Activities: *Adequate execution of the workprogram.*

Expected-ex-ante: To achieve more than 90 % of the whole execution of the work programme.

-Other Activities: *Budget properly allocated.*

Expected-ex-ante: Not more than 10 % of changes in the allocation of the budget are expected.

Qualification Indicators:



-FF.R&D.QI: *Presence of additional specific quality assurance schemes, systems, procedures as regards quality management.*

Expected-ex-ante: A Quality System (QS) composed of Dr. Antonio Valverde García and Dr. Tuija Pihlström will oversee, control and report upon all the activities of the work programme, ensuring they are executed at the right time and in the correct way. It will also make sure that the budget is properly allocated.

The QS will supervise all reports and meeting minutes and will keep a summary of all documents ready for external audits.

Evaluation sheets as feedback from NRLs and OfLs will be presented to DG SANCO when requested, as well as feedback questionnaires for each Proficiency Test given by the participants.

Deliverables: Quality system report.

A2. EURL-FV web page:

The dedicated website (<http://www.eurl-pesticides.eu>), designed to support dissemination of information and network activities, is continuously updated. It represents the main source of information exchange between the EURLs and the NRLs as well as other official EU laboratories and third countries. The website holds information about the activities and events carried out by the EURL as well as those published reports available and scientific papers. It also holds forms, sheets and other documents ready to fill out on-line, thus facilitating the management tasks and quality monitoring and straight links to other relevant websites. Constant collaboration between the EURL-FV and the EURL website management is a must. Furthermore, the website aids contacts (via specific links) between laboratory researchers and experts providing a valuable tool for dissemination. The website includes different sections, corresponding to the activities of the EURL: Proficiency tests, Workshops, Services, EURL-FV Network, QC Panel and Library. Technical support to the DG SANCO, to the NRLs and to all the laboratories that have participated in the EUPTs-FV will be provided through the computer tool developed the previous year and located in the EURL website. This tool will contain information gathered since EUPT-FV11 about the performance of the participant NRLs and Official Laboratories, such as combined z-score values and additional information regarding the number of samples analysed per year by the laboratories or the total number of pesticides within their scope, in order to allow a clear picture of the technical capabilities of the laboratories. Only DG SANCO will be able to access all the data, through a user name and password. The participant laboratories will access only their own data, and the NRLs will be able to see the performance of all the laboratories within their network.

In cooperation with the other EURLs for pesticide residues and coordinated by EURL-AO, the EURL-FV will collaborate with the maintenance of the CIRCA



Domain; esp. the movement of the content from FISVL-Server (Berlin) to EU-Server (Brussels) and proving the status of the enrolled members.

New tasks in 2013:

-Forms and related documentation for NRLs and OfLs to conduct the 2013 EUPTs will be uploaded in a specific web page designed by the EURL-FV (www.eupt.es) and linked to the EUPT-FV area.

-An updated guide for submission of results will be created in order to help the user and to avoid mistakes. This must ensure that the procedure for laboratories to report results is easy and fast, that no confusion arises and that results can be handled in real time.

-Information for the webinars to be organized in 2013 (see activity D6) will be included.

-Access to the QC Panel site in the main EURL website will allow the laboratories to consult the "Method Validation and Quality Control Procedures for Pesticide Residues Analysis in Food and Feed" (SANCO/12495/2011). The site will allow constant feedback from the laboratories, so it will be useful to collect information or suggestions from the laboratories on the document for future revisions. This website will be coordinated with the other EURLs (see activity C1).

- Contribution to EURL data pool (www.eurl-pesticides-datapool.eu) with an exact mass data base of 300 pesticides and its fragments.

Evaluation questionnaires about the different tasks will be given to the participants.

Performance indicators:

-FF.PT.5: *Availability for use by NRLs/OLs of analytical methods developed or validated by the EURL, or (ii) prescribed for official control by European legislation (if applicable).*

Expected ex-ante: Five new analytical methods or partially modified analytical methods will be available in the web page.

-Other Activities: *Number of entries in the web page.*

Expected ex-ante: To maintain 9000 entries or increase this number.

-Other Activities: *Number of updates of the web page with all news activities.*

Expected ex-ante: 12 updates of the web page will be made with the new activities, plus routine updates.

-Other Activities: *Number of relevant publications in peer-reviewed journals.*



Expected-ex-ante: Three scientific papers are expected to be published focused in:

- Determination of pesticides in tea and herbal teas.
- Detection of pesticides in leaves. Comparative study of pesticides levels in fruits and leaves of a tomato crop.
- Screening method based in MS/MS spectral libraries.

-Other Activities: *Number of technical documents available in the EURL website.*

Expected-ex-ante: Three technical documents are expected to be published, focused in:

- Development of a screening method by GC-Q-TOF-MS.
- Multiresidue methods for analysis of pesticides in high fat content fruits and vegetables.
- Update of multiresidue methods with the new pesticides included in Regulation (EC) No. 396/2005 and in the Coordinated Multiannual Community Control Programme.

A3. Publication of technical reports and scientific papers:

The results of the activities listed below will be published as technical or scientific documents, depending on the publishing and editorial company. The most relevant will be disseminated through the EURL-FV website (www.eurl-pesticides.eu), making them available for interested members of the scientific community. These actions will always be taken with the express agreement of the DG SANCO. This task will be focused on the preparation of the correct formats, supervision of the participant authors, objectives and conclusions, submission of the documents, reception and correction of the galley proofs and communication of their submission to the DG SANCO.

Deliverables: 3 scientific papers + 3 Technical documents.

A4. Development of bilateral cooperation with other organisations:

Information of mutual interest will be exchanged between the EURL, JRC, EFSA and RIKILT (Dutch Institute of Food Safety), with a view to possible joint projects or to present relevant information/data with the express agreement of DG SANCO.



The specific activities for this year are:

-Special collaboration with EFSA under agreement of DG SANCO through Mrs. Paula Medina Pastor, second national expert in EFSA and former member of the staff of EURL-FV (This collaboration will be held from January to July 2013, at zero cost for the EURL-FV. After that period of time, Paula Medina will return to work for the EURL-FV)

-A study on the feasibility of certified reference materials production will be performed in collaboration with JRC.

-Collaboration with the Dutch Institute of Food Safety (RIKILT) in the study of the variability of ion ratios by LC-MS/MS.

Performance indicators

-Other Activities: *Certificates of collaboration from other organisations.*

Expected ex-ante: Two reports or certificates from EFSA and from JRC:

- EFSA report/certificate with the specific activities developed of the second national expert in collaboration with EURL-FV.

- JRC report/certificate describing the specific collaboration.

Deliverables: 2 Certificates of collaboration



B - DEVELOPMENT AND VALIDATION OF ANALYTICAL METHODS.

B1. Development of validated procedures.

B1.1 Validation of multiresidue methods for the determination of pesticides in high fat content fruits and vegetables.

The three main extraction methods for pesticides residues in fruits and vegetables (QuEChERS, Ethyl acetate method and mini-Luke) will be modified and validated in different fruits and vegetables matrices with high fat content, such as tree nuts, avocado and olives. The employed extraction methods will be QuEChERS (Acetonitrile Extraction/Partitioning and clean-up by dispersive SPE) with the peculiarity to use a new sorbent in the clean-up step in order to obtain cleaner extracts and thus better results, ethyl acetate method and mini-Luke. The analyses will involve LC-MS/MS and GC-MS/MS determinations.

Performance indicators:

-FF.ANA.1 *Number of newly available analytical methods disseminated to NRLs/OLs: description of the situation with specification e.g. of new analytical methods developed by the EURL or in general or description whether partially modified methods or completely new methods are expected.*

Expected ex-ante: 3 partially modified analytical methods (Validation of 3 multiresidue methods for the determination of pesticides in high fat content food)

-FF.PT.5 *Availability for use by NRLs/OLs of analytical methods developed or validated by the EURL, or (ii) prescribed for official control by European legislation (if applicable).*

Expected ex-ante: The analytical methods validated will be available in the EURL website (<http://www.eurl-pesticides.eu>).

B1.2 Development of a screening method by GC-Q-TOF-MS.

In order to extend the scope of the screening method developed previously by LC-TOF-MS, and thus, to cover those pesticides not analysed by it, the EURL-FV will develop a gas chromatographic method (GC-Q-TOF-MS) for screening purposes. The method will be validated in three different matrices: orange, tomato, and spring onions and at three concentration levels: 20, 50 and 100 µg/Kg. Sensitivity will be studied as it is one of the main aspects for automatic identification of pesticides, especially in complex matrices. In addition, experiments will be conducted to detect possible failures in the software used for automatic data processing. This way it will be possible to increase the scope of the actual GC



methods (target method based in GC-TSQ) with additional advantages such as the possibility of retrospective analysis and a fast introduction of new compounds.

Performance indicators:

-FF.ANA.1 *Number of newly available analytical methods disseminated to NRLs/OLs: description of the situation with specification e.g. of new analytical methods developed by the EURL or in general, or description whether partially modified methods or completely new methods are expected.*

Expected ex-ante: 1 new analytical method (Screening method by GC-Q-TOF-MS)

-FF.PT.5 *Availability for use by NRLs/OLs of analytical methods developed or validated by the EURL, or (ii) prescribed for official control by European legislation (if applicable).*

Expected ex-ante: The analytical methods validated will be available in the EURL website (<http://www.eurl-pesticides.eu>)

Deliverables: 2 Technical Reports

B2. Improvement of already existing analytical multiresidue methods.

B2.1 Update of multiresidue methods with the new pesticides included in Regulation (EC) No. 396/2005 and in the Coordinated Multiannual Community Control Programme.

As new pesticides are constantly being incorporated in Regulation (EC) No. 396/2005 and the Coordinated Multiannual Community Control Programme, the EURL-FV will include the validation data of the new pesticides included. This will be the case of flubendiamide, isoprothiolane, spinetoram, cadusafos, fenpyrazamine, fluopyram and imazapic, which will be validated by the main multiresidue methods by LC-TSQ-MS and GC-TSQ-MS. All the information obtained during the validation process will be provided to the laboratories through the EURL-FV website (<http://www.eurl-pesticides.eu>).

Performance indicators:

-FF.ANA.1 *Number of newly available analytical methods disseminated to NRLs/OLs: description of the situation with specification e.g. of new analytical methods developed by the EURL or in general, or description whether partially modified methods or completely new methods are expected*



Expected ex-ante: 1 analytical method will be validated with the new pesticides included in Regulation (EC) No. 396/2005 and in the Coordinated Multiannual Community Control Programme.

-FF.PT.5 *Availability for use by NRLs/OLs of analytical methods developed or validated by the EURL, or (ii) prescribed for official control by European legislation (if applicable)*

Expected ex-ante: The analytical methods validated will be available in the EURL website (<http://www.eurl-pesticides.eu>)

Deliverables: 1 Technical Report

B3. Follow up of the implementation of the developed methods in the Official Laboratories.

The EURL-FV will contact the OfLs in order to check the degree of implementation of the new methods developed and published and with the aim to learn the possible difficulties found in the process of implementation.

Performance indicators:

-FF.PT.6 *Reported use by NRLs/OLs in relation to EURL's specific promotional activities of analytical methods (i) developed or validated by the EURL (expected take-up), or (ii) prescribed for official control by European legislation (if applicable)*

Expected ex-ante: In general, it is expected that at least 70 % of the laboratories will use at some extent, the updated methods published by the EURL-FV.

For specific methods such as the ones described in activity B1.1, due to the difficulty of the implementation, it is expected that during the first year at least 25 % of the laboratories will use any of the modifications of the methods.

Regarding the screening method by GC-Q-TOF-MS (Activity B1.2), as it is a pilot study, the method will be presented to the NRLs and OfLs to facilitate the introduction of GC screening methods. Its implementation will be followed in future years and it is expected to be similar to the one of LC-Q-TOF screening, which nowadays is available for 50% of the laboratories.

Deliverables: e-mails



C -QUALITY ASSURANCE AND QUALITY CONTROL PROGRAMME, INCLUDING THE ORGANISATION OF PROFICIENCY TESTS AND INTERCOMPARATIVE STUDIES.

C1. Quality Control Panel covering the update of EU Guidelines on Quality Control Procedures:

In order to continue the process of achieving complete harmonisation measures for pesticide residue analysis within the EU, the SANCO guideline "Method Validation and Quality Control Procedures for Pesticide Residues Analysis in Food and Feed" needs to be revised and updated on continuous basis, especially when difficulties arise.

Therefore, the aim is to carry on with the specific forum (QC Panel) on the EURL-FV website (<http://www.eurl-pesticides.eu>) so as to facilitate the discussion and to point out difficulties and improvements on the EU QC Guidelines.

This network will provide interaction among EURLs-NRLs-OfLs. The outcome of the discussion in this specific forum will improve and facilitate further updated revisions of the EU QC Guidelines, to be presented in the workshop.

Through the QC Panel the laboratories can ask any question related to the "Method validation and quality control procedures for pesticide residues analysis in food and feed" (Document N° SANCO/12495/2011). The EURL-FV will request an expert of the Scientific Panel or other well-known expert to answer the comment and will publish it on the website.

Regarding the Quality Control Procedures, the expected activities of the EURL-FV in 2013 are:

- To collect changes for the new version, apart than those from the QC Panel, from the Joint Workshop with EURL-SRM and CF organised in Cyprus in November 2012 and from the specific training tailored to Screening Methods in Almería.

- To implement the above mentioned changes. In a final meeting that will take place in Almería with the ADVG together with the EURL-FV, all the possible modifications to the SANCO Guidelines will be discussed with the aim to produce the new version of the document at the end of the year.

- To edit and distribute electronically and in hard copy among NRLs and OfLs the new version of SANCO Guidelines: SANCO/XXXX/2013. In order to give transparency to the process, an external independent coordinator expert (Dr. Tuija Pihlstrom), who has been involved in previous versions of the guideline document, will task with the compilation and collection of information to get better and more specific information. This work will be in coordination with the other three EURLs.



Performance indicators:

-FF.R&D.1 *Number of high quality communication items to NRLs on follow-up of research other than analytical method-related.*

Expected-ex-ante: An electronic copy of "Method Validation and Quality Control Procedures for Pesticide Residues Analysis in Food and Feed" (Document N° SANCO/XXXX/2013) will be available in the EURL website (<http://www.eurl-pesticides.eu>), and the hard copy will be printed and sent to all the laboratories.

Participation of EU Advisory Groups: ADVG

Deliverables: Forum contact with laboratories and 1 EU QC Guidelines

C2. Organisation and Development of Proficiency Tests and Intercomparative studies.

C2.1 Development and conduction of European Proficiency Test FV-15:

The EURL European Proficiency Test on fruits and vegetables 15, in accordance with previous schemes and statements (EUPT-FV-1-14) will be open to all OfLs, especially the NRLs of EU Member States. Additionally, laboratories from EFTA countries and other third countries which are big exporters to the EU will be invited to participate, so quality assurance can reach them on the basis of the proficiency test. These countries might be invited to take part after FVO mission recommendation and under request of DG SANCO.

This EUPT will be carried out in a way which simulates, as far as possible, the real sample conditions that arrive to a laboratory on its routine work such as: the use of commercial formulations for pesticide treatment; homogeneity of intra-samples and the consideration of all classes/types of compounds. In order to facilitate the analytical performance control to the laboratories, a "blank" sample will be provided in each EUPT.

The commodity used for the test material of this EUPT FV15 along with the pesticides used to spike the samples will be chosen in the ADVG meeting that will take place in Almería in September 2012 from those products indicated in the coordinated multiannual control programme of the Union for 2013. The whole organisation of the EUPT will be very similar to that of the previous EUPTs performed by the EURL-FV. This Proficiency Test will be based on the Quality Control Norm ISO/IEC 17043: Conformity assessment - General requirements for proficiency testing.

The process of the development of the EUPT involves the following steps:



Blank matrix search.

Approximately 400 kg of blank matrix are purchased and a representative subsample is analysed in order to ensure the absence of any pesticide of the Target Pesticide List at a level above the MRRL (Minimum Required Reporting Level)

- Concentration Level tests.

Different concentration test levels are performed in small amounts of matrix in order to assess the required concentration levels.

- Preparation of the proficiency test material (both blank and spiked samples).

The organiser staffs prepare approximately 150 Kg of homogeneous proficiency test item, treated with the selected pesticides. According to the matrix chosen, it needs to be prepared as Codex suggests. There are two ways in which sample treatment is performed: one using commercial formulates and the other using standard solutions. The reason for using one or the other depends on the availability of the active substances. The proficiency test material is cut into smaller pieces. This improves the next step which is freezing, using liquid nitrogen, to establish the interaction between the pesticides and the matrix. It is vital that the cold chain is not broken from this point until the reception of the sample by the laboratory and analysis. Once the matrix is completely frozen, it is chopped using a mincer until it becomes powder. After everything has been minced, it is placed in a big homogenising container where it continues to be mixed for 2 hours. Once the two hours have elapsed, the mixture is sub-sampled into polyethylene bottles that have been coded. Security screw caps are placed on top and once the bottles are cleaned, they are stored in freezers at -20°C prior to shipment.

The blank proficiency test item is prepared, too, in the same way with another 150 Kg of matrix, this time untreated.

- Homogeneity and Stability tests.

Ten of the bottles containing the test material will be chosen randomly, and analysed to check for homogeneity. The test material will be stored frozen (-20°C) prior to shipment to participants.

Two bottles, again chosen randomly, will be analysed over a period of time to confirm the stability of the pesticides in the test material (firstly, when the test materials are shipped, then a few days after the receipt deadline for participants' results). There will be one further analysis during this period reproducing the sample shipment i.e. maintaining the sample at room temperature for a few days



to see if there is degradation of any of the pesticides present in the test material. These results will not be included in the proficiency test's statistical analysis. The aim is solely to check pesticide stability during the shipping process and over the duration of the proficiency test.

- Shipment to participants.

300 g aliquots of test and blank samples are distributed to each participant that has been accepted to participate in the test, without any information about the residue type or level present in the sample. These samples are sent to the participants by courier packed in dry ice inside special boxes.

- Reception of results.

Once the laboratory has analysed the test material and is ready to submit their data, they must enter their results by accessing the restricted area in the EURL –FV web site: <http://www.eurl-pesticides.eu> (see activity A.2)

- Statistical treatment of the results.

The results provided by the laboratories are treated and assessed (estimation of the true concentration, Standard deviation of the assigned value, individual z-scores and combined z-scores calculations, etc.) and are included in the Final report.

- Final report and Certificates of participation.

The EURLs will publish a preliminary report, containing tentative medians and z-score values for all pesticides present in the test sample, within 2 months from the deadline for result submission.

The Final Report will be published after the EUPT-Panel has discussed the results.

Along with the Final Report, the EURL Organiser will deliver an official Certificate of Participation to each participating laboratory with the z-score achieved for each pesticide and the combined z-scores calculated (if any) together with the classification into Category A and B.

Participants will be able to follow the exercise in real time and receive documents and instructions through the specific section of the EURL website (<http://www.eurl-pesticides.eu>) (see activity A2).

Each participant will receive a detailed electronic report, which will allow the laboratories to interpret their results and also to identify possible sources of procedural errors.



A final report summarising the scope, results, data treatment and additional information of the methods used will be prepared and made available to every participant laboratory.

Additionally, a critical evaluation on a laboratory-basis and on a country-basis will be prepared and made available to the NRLs and the DG SANCO in the shortest time possible after completing the last stage of the exercise.

The progress made by the NRLs or OfLs will be evaluated, and in those cases where evidence of no advance is found, the EURL-FV will make appropriate follow up following the underperformance criteria agreed by SANCO.

Performance indicators:

-FF.PT.1 *Intercomparative test following internationally standardized criteria to be organized.*

Expected-ex-ante: The EURL will organize the European Union Proficiency Test on fruits and vegetables 15 (EUPT-FV-15).

-FF.PT.2 *Grading addressing the complexity of the PT with the corresponding justification.*

Expected-ex-ante: 2 (more challenging analytes, concentration and matrices)

-FF.PT.3 *Average rates of NRL/OL success in relation to PT'S grade of complexity and methods and activities to ensure follow up of poor results.*

Expected ex-ante: 150 participant laboratories are contemplated to take part in the EUPT-FV-15, among NRLs, OfLs and third countries' laboratories. More than 75 % of the laboratories are expected to obtain values of combined z-scores (SZ2) between 0 and 2.

-FF.PT.4 *Progress made by NRLs/OfLs on similar comparative tests with possible discussion of influential factors.*

Expected-ex-ante: At least 10 % of the laboratories are expected to progress positively in comparison with previous EUPT-FVs.

-FF.ORG.1 *Number of workshops/ trainings/PTs to be organised with third country focus.*

Expected ex-ante: 3 (EUPT-FV-15, EUPT-SM-05, EUPT-T-01)

-FF.ORG.2 *Number of third countries invited for each workshop/training/PT with third country focus.*

Expected ex-ante: 8 third countries will be invited to participate in the EUPTs.



-FF.ORG.3 Attendance rate and average rates of NRL/OL success in case of PT in relation to PT's grade of complexity.

Expected ex-ante: See FF.PT.3

-FF.R&D.1 Number of high quality communication items to NRLs on follow-up of research other than analytical method-related.

Expected ex-ante: A final report containing the results of the EUPT-FV-15 will be sent to the participant laboratories.

Qualification Indicators:

-FF.PT.QI: Presence of additional specific quality assurance schemes* (examples could be: qualifications of staff, procedures, development/validation of analytical methods, etc.)

Expected ex-ante: The European Union Proficiency Tests (EUPTs) will follow the Quality Control Norm ISO/IEC 17043: Conformity assessment - General requirements for proficiency testing. This accreditation has been officially requested to the Spanish Accreditation Body (ENAC)

Deliverables: 1 Proficiency Test Report (Final report)

C2.2 EU Intercomparative Study on Mass Spectrometry Screening Methods 05.

The aim of this intercomparative study is to promote the fast screening of a large number of pesticide residues in the EU control laboratories by using the new instrumental developments. By this way the scope of the methods in screening mode could achieve 500-700 compounds in a fast and low expensive way.

Participation in this PT remains on a voluntary basis; nevertheless, all NRLs and OfLs involved in the determination of pesticide residues in fruit and vegetables for the EU-coordinated monitoring programme or for their own national programs and third countries will be invited to take part.

This intercomparative test, already conducted during the last four years, will be based on the delivery of a matrix treated with around 20 pesticides. In this case the laboratories will not receive a fixed target list of pesticides, so they will have to analyse the sample in full scan mode by LC-TOF-MSD, GC-Q-MSD or GC-TOF-MSD systems, for example, or using any other procedure that they may have.

The commodity used for the test material will be chosen in the ADVG meeting that will take place in Almería in September 2013 from those products indicated in the coordinated multiannual control programme of the European Union for 2013.



In any case, the commodity and the sample treatment will be the same than the one employed for EUPT-FV-15. This Proficiency Test will be based on the Quality Control Norm ISO/IEC 17043: Conformity assessment - General requirements for proficiency testing.

After sending the treated sample to the participants for analysis, the laboratory has to submit the results in a short period of time after the reception of the samples (48 hours). The aim of this PT is to check if screening methods are run fast and efficiently on routine basis by the laboratories.

A final report summarising the scope, results, data treatment and additional information of the methods used will be prepared and made available to every participant laboratory.

Performance Indicators:

-FF.PT.1 *Number of comparative tests following internationally standardized criteria to be organised.*

Expected ex-ante: The EURL will organize the European Union Proficiency Test for screening methods 5 (EUPT-SM-05).

-FF.PT.2 *Grading addressing the complexity of each PT with corresponding justification.*

Expected ex-ante: 2 (more challenging analytes, concentrations and matrices)

-FF.PT.3 *Average rates of NRL/OL success in relation to PT's grade of complexity and methods and activities to ensure follow-up of poor results.*

Expected ex-ante: 50 participant laboratories are contemplated to take part in the EUPT-SM-05. At least 70 % of the laboratories are expected to be able to detect at least 70 % of the pesticides present in the test material.

-FF.PT.4 *Progress made by NRLs/OL on similar comparative tests with possible discussion of influential factors.*

Expected ex-ante: An improvement between 5 to 10 % is expected in comparison with previous EUPT-SM results.

-FF.ORG.1 *Number of workshops/ trainings/PTs to be organised with third country focus.*

Expected ex-ante: 3 (EUPT-FV-15, EUPT-SM-05, EUPT-T-01)

-FF.ORG.2 *Number of third countries invited for each workshop/training/PT with third country focus.*



Expected ex-ante: 8 third countries will be invited to participate in the EUPTs.

-FF.ORG.3 *Attendance rate and average rates of NRL/OL success in case of PT in relation to PT's grade of complexity.*

Expected ex-ante: See FF.PT.3

-FF.R&D.1 *Number of high quality communication items to NRLs on follow-up of research other than analytical method-related.*

Expected ex-ante: A final report containing the results of the EUPT-SM-05 will be sent to the participant laboratories.

Qualification Indicators:

-FF.PT.QI: *Presence of additional specific quality assurance schemes* (examples could be: qualifications of staff, procedures, development/validation of analytical methods, etc.)*

Expected ex-ante: The European Union Proficiency Tests (EUPTs) will follow the Quality Control Norm ISO/IEC 17043: Conformity assessment - General requirements for proficiency testing. This accreditation has been officially requested to the Spanish Accreditation Body (ENAC)

Deliverables: 1 Intercomparative Study Report (Final Report)

C2.3 EU Intercomparative Study on incurred tea samples 01 (EUPT-T-01).

With the aim to evaluate the multiresidue method for analysis of pesticides in herb matrices validated in the previous year, the EURL-FV will organise an intercomparative study in tea, EUPT-T-01. This intercomparative study will be carried out in a way which simulates, as far as possible, the real sample conditions that arrive to a laboratory on its routine work. The sample sent to the laboratories for analysis of the present pesticides using their multiresidue methods will be a commercial incurred tea sample containing at least five pesticides.

Participation in this intercomparative study remains on a voluntary basis; nevertheless, all NRLs and OfLs involved in the determination of pesticide residues in fruit and vegetables and third countries will be invited to take part. Participants will be able to follow the exercise in real time and receive documents and instructions through the specific section of the EURL website (see activity A2).

A final report summarising the scope, results, data treatment and additional information of the methods used will be prepared and made available to every participant laboratory, so each participant will receive a detailed electronic



report, which will allow the laboratories to interpret their results and also to identify possible sources of procedural errors.

Additionally, a critical evaluation on a laboratory-basis and on a country-basis will be prepared and made available to the NRLs and the DG SANCO in the shortest time possible after completing the last stage of the exercise.

The whole organisation of the intercomparative study will be very similar to that of the previous EUPTs performed by the EURL-FV, with the peculiarity that in this case the sample will be a commercial incurred matrix.

This intercomparative study will be based on the Quality Control Norm ISO/IEC 17043: Conformity assessment - General requirements for proficiency testing.

Performance Indicators:

-FF.PT.1 Number of comparative tests following internationally standardized criteria to be organised.

Expected ex-ante: The EURL will organize the first intercomparative study on tea (EUPT-T-01).

-FF.PT.2 Grading addressing the complexity of each PT with corresponding justification

Expected ex-ante: 3 (more complex combination of analytes and matrix)

-FF.PT.3 Average rates of NRL/OL success in relation to PT's grade of complexity and methods and activities to ensure follow-up of poor results.

Expected ex-ante: 20 participant laboratories are contemplated to take part in the EUPT-T-01. At least 70 % of the laboratories are expected to have satisfactory results in this EUPT.

-FF.ORG.1 Number of workshops/ trainings/PTs to be organised with third country focus.

Expected ex-ante: 3 (EUPT-FV-15, EUPT-SM-05, EUPT-T-01)

-FF.ORG.2 Number of third countries invited for each workshop/training/PT with third country focus.

Expected ex-ante: 8 third countries will be invited to participate in the EUPTs.

-FF.ORG.3 Attendance rate and average rates of NRL/OL success in case of PT in relation to PT's grade of complexity.

Expected ex-ante: See FF.PT.3



-FF.R&D.1 *Number of high quality communication items to NRLs on follow-up of research other than analytical method-related.*

Expected ex-ante: A final report containing the results of the EUPT-T-01 will be sent to the participant laboratories.

Qualification Indicators:

-FF.PT.QI: *Presence of additional specific quality assurance schemes* (examples could be: qualifications of staff, procedures, development/validation of analytical methods, etc.)*

Expected ex-ante: The European Union Proficiency Tests (EUPTs) will follow the Quality Control Norm ISO/IEC 17043: Conformity assessment - General requirements for proficiency testing. This accreditation has been officially requested to the Spanish Accreditation Body (ENAC)

Deliverables: 1 Proficiency Test Report (Final report)

C2.4 Standard Solution Stock Service:

To facilitate the laboratories' work, the EURL-FV considers very useful to offer them a stock solution service. Laboratories will be able to request pesticide solutions from our stock of standards. Upon request of the laboratories, a vial with a concentrated solution of the pesticide in the chosen solvent will be sent to the laboratories. Only the shipment will be charged.

Performance indicators:

-Other Activities: *Number of requested standard solutions.*

Expected ex-ante: At least 10 standard solutions are expected to be requested.

C3. Establishment of criteria for defining underperformance in multiresidue methods.

The EURL-FV in cooperation with EURL-CF, EURL-AO and EURL-SRM will develop defined criteria to evaluate whether a laboratory has had underperformance in the EUPTs, and if so, this laboratory could be a potential attendee for activity D4. These criteria will be set, through meetings or by e-mail, starting from the Basic Agreement with DG SANCO.

EURL FOR PESTICIDE RESIDUES IN FRUITS AND VEGETABLES (EURL-FV)
2013 Activity Programme



Performance indicators:

-**Other Activities:** *Number of meetings and people involved*

Expected ex-ante: Two meetings (EURL-FV/CF/AO/SRM and ADVG)

Deliverables: 1 Report



D - TECHNICAL AND SCIENTIFIC SUPPORT TO DG SANCO, EU MEMBER STATES AND THIRD COUNTRIES INCLUDING THE ORGANISATION OF COURSES AND WORKSHOPS.

D1. Joint EURL-AO/CF/SRM/FV Workshop for Pesticide Residues in Food

A joint workshop will be performed in Almeria in collaboration with the EURL-AO, CF and SRM. NRLs and OfLs from all MS can attend, with the main objective to facilitate the interaction between them and the EURLs. The workshop will be held during two days, and will consist in technical and scientific communications regarding new activities of the EURLs and other developments in the field of pesticide residues analysis in food and feed. An additional activity of this workshop will be presenting the new Quality control Guidelines to the NRLs and voting for its approval.

Within 2 months after the workshop, a financial report as well as a technical report, that will include feedback evaluation, will be submitted. The technical report will be presented in the EURL website (<http://www.eurl-pesticides.eu>).

Performance indicators:

-FF.NRL.1 *Number of participating NRLs/OLs in the annual workshop/ Actions taken to ensure all NRL/OL's participation.*

Expected ex-ante: 100 / Official invitation by e-mail and specific request if necessary. If the laboratory does not participate, it will be asked a document justifying the non-participation, which will be available if requested by DG SANCO.

-FF.NRL.2 *Number of positive satisfaction surveys above 85% received for the annual workshop.*

Expected ex-ante: More than 80 % of the attendees satisfied with the workshop

-FF.NRL.3 *Measures to address relevant negative feedback from satisfaction surveys.*

Expected ex-ante: In case of relevant negative feedback from satisfaction surveys, the EURL-FV will send an e-mail to the laboratories consulting them which were the unsatisfactory points. The findings will be gathered in a report and will be sent to the other EURLs in order to avoid repeating the same errors in further workshops.

-FF.R&D.1 *Number of high quality communication items to NRLs on follow-up of research other than analytical method-related.*



Expected ex-ante: 3 oral communications regarding general problems of the NRLs and OfLs not related with the analytical methods.

Deliverables: 1 report

D2. Advisory Group Workshop.

The members of the advisory group (ADVG) will meet with the EURL head staff once a year, at the end of all EUPTs, probably in October. The ADVG is made up of 10 scientific experts from various EU countries and has the task of supervising the Proficiency Tests, statistical data treatment and performance criteria related to that topic.

The Quality control group (QCG) consists in two scientific experts, who will be in charge of deciding, together with the EURL-FV head staff, the pesticides and concentrations used to treat the samples of the EUPT-FV. The QCG will meet with the EURL-FV head staff twice a year. One of these meetings will be together with the ADVG. The other one will be a computer-assisted virtual meeting.

Performance Indicator:

-FF.NRL.5 *Number of workshops/trainings to be organised other than the annual workshop within the framework of EURL activity as described in the AWP (third countries involvement to be stated as laid out in AWP)*

Expected ex-ante: 1 ADVG Workshop.

-FF.NRL.6 *Attendance rate and number of positive satisfaction surveys above 85% received for such workshops*

Expected ex-ante: 10 participants.

Deliverables: 1 Minute Report

D3. Technical assistance to DG SANCO and arbitration in the event of litigation.

Assistance to the European Commission will continue regarding the selection of the number of analyses, commodities and pesticide lists to be monitored by the Member States in agreement with *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 pesticides and to assess the consumer exposure to pesticide residues in and on food of plant and animal origin*. Furthermore, this



assistance will also be related to the analytical capabilities/requirements and performance criteria needed to carry out the EU multiannual control programme and will be linked to previous tasks (B and C).

Whenever the need arises, technical advice will be provided to the DG SANCO upon request. These activities will include:

- Involvement in the EFSA residue evaluation process on behalf of the European Commission by giving opinions and advices, especially regarding residue definition, and post registration analytical methods.
- Attendance to the Standing Committee (SCFCAH) as the DG SANCO requests.
- If the Food and Veterinary Office (FVO) so request it, the EURL will accompany the FVO inspectors in the audit visits giving technical support as a “national expert”.

In the case of disputes involving EU Member States, as well as non-EU countries, the EURL-FV counts with highly qualified personnel available for emergency situations occurring within the European Union, so it is ready to provide its assistance and arbitration within the field of its competence: in particular, to analyse controversial samples for those residues under its mandate in the relevant matrices. These analyses will be performed in the EURL-FV laboratory in the shortest period of time after receiving the sample (< 2 days).

Performance Indicator:

-FF.COM.1 *Number of qualified staff in terms of preparedness with relevant completed training able to travel, to assist during outbreaks/ crisis situations and/or to engage the EURL on-site.*

Expected ex-ante: 5 highly qualified staff, most of them with PhD degree, are available to meet with the DG SANCO and can participate and interchange e-mails with DG SANCO.

-FF.COM.2 *Adequacy of response to requests in terms of 1) content and 2) timely delivery.*

Expected ex-ante: The EURL-FV has established a “help desk” 8 hours a day, 220 days a year. In case of arbitration in the event of litigation, submission of the results of the analyses to the DG SANCO will be in a period of time lower than 2 days.

Deliverables: 1 Report



D4. Training to the NRLs.

The EURL will support the NRLs with technical information on a case by case basis, depending on their facilities and their needs for improvement. This technical assistance will include visits of one or two people from the EURL-FV. It should also be possible to receive visits in the laboratories of the EURL-FV in Almería or in Valencia if the laboratory requests so. The selection of the laboratories will be fixed following consultations with DG SANCO, giving emphasis on NRLs with underperformance in the last EUPT-FVs and EUPT-SMs. The criteria of underperformance will be set by the EURL-FV in cooperation with the other three EURLs in order to evaluate whether a laboratory has had underperformance in the EUPTs, and if so, this laboratory could be a potential attendee for this activity. The EURL-FV, CF and SRM will jointly visit the respective NRLs of one that was noticed to have deficits in the areas of EUPT-performance and scope or as regards cooperation with the EURLs. The country to be visited will be specified at a later stage in consultation with DG-SANCO.

Performance Indicator:

-FF.NRL.4 *Number of NRLs or OfLs visited for training.*

Expected ex-ante: 2 NRLs are expected to receive tailored training from the EURL-FV.

Deliverables: 1 Technical Assistance Report

D5. Assistance to Third Countries.

This task will promote the international networking and dissemination of the information and activities from the EURL-FV, especially in countries with intensive European export-import relationships. This assistance will be supported with at least constant communication via e-mail and telephone. Selected third countries will be invited to participate in the workshops and training courses as well as to visit the laboratories in relevant cases.

Dissemination of EURL activities is expected in the Latin America Pesticide Residue Workshop (LAPRW) in Bogotá, Colombia (May 26th-29th 2013).

D6. Joint EURL-CF/SRM/FV Webinars

The EURL-FV in collaboration with EURL-CF and SRM conduct webinars with the aim to disseminate information with the NRLs and OfLs in a cost effective but still interactive way. In 2013 each EURL will organize at least two webinars individually

EURL FOR PESTICIDE RESIDUES IN FRUITS AND VEGETABLES (EURL-FV)
2013 Activity Programme



or in collaboration with other EURLs, being the main topics relevant activities related with the Work Programme 2013.

Performance Indicator:

-FF.R&D.1 Number of high quality communication items to NRLs on follow-up of research other than analytical method-related

Expected ex-ante: At least 2 webinars

Deliverables: 2 Recorded webinars



LIST OF TASKS

A - GENERAL TASKS.

- A1. Management of administrative duties.
- A2. EURL-FV Web Page.
- A3. Publication of technical reports and scientific papers.
- A4. Development of bilateral cooperation with other organisations.

B - DEVELOPMENT AND VALIDATION OF ANALYTICAL METHODS

- B1. Development of validated procedures.
 - B1.1 Validation of multiresidue methods for the determination of pesticides in high fat content fruits and vegetables.
 - B1.2 Development of a screening method by GC-Q-TOF-MS.
- B2. Improvement of already existing analytical multiresidue methods.
 - B2.1 Update of multiresidue methods with the new pesticides included in Regulation (EC) No. 396/2005 and in the Coordinated Multiannual Community Control Programme.
 - B3. Follow up of the implementation of the developed methods in the Official Laboratories.

C - QUALITY ASSURANCE AND QUALITY CONTROL PROGRAMME, INCLUDING THE ORGANISATION OF PROFICIENCY TESTS AND INTERCOMPARATIVE STUDIES.

- C1. Quality Control Panel covering the update of EU Guidelines on Quality Control Procedures
- C2. Organisation and development of Proficiency Tests and Intercomparative Studies.
 - C2.1. Development and conduction of European Proficiency Test FV-15.
 - C2.2. EU Intercomparative Study on Mass Spectrometry Screening Methods 05.
 - C2.3 Development and conduction of a Proficiency Test in incurred tea samples (EUPT-T-01).
 - C2.4 Standard Solution Stock Service
- C3. Establishment of criteria for defining underperformance in multiresidue methods.

D - TECHNICAL AND SCIENTIFIC SUPPORT TO DG SANCO, EU MEMBER STATES AND THIRD COUNTRIES INCLUDING THE ORGANISATION OF COURSES AND WORKSHOPS.

- D1. Joint EURL-AO/CF/SRM/FV Workshop for Pesticide Residues in Food
- D2. Advisory Group Workshop
- D3. Technical assistance to DG SANCO and arbitration in the event of litigation
- D4. Training to the NRLs
- D5. Assistance to Third Countries.
- D6. Joint EURL-CF/SRM/FV Webinars