WORK PROGRAMME of EURL for

PESTICIDE RESIDUES IN FRUITS AND VEGETABLES

PERIOD: 2019/2020

Version 1.0
date 24/01/2019

CONTACT DETAILS

European Union Reference Laboratory for Pesticide Residues in Fruit and Vegetables
UNIVERSIDAD DE ALMERÍA-Edificio de Química
Ctra. Sacramento s/n
La Cañada de San Urbano
04120-ALMERÍA
Tel: 950 015 034 / Fax:950 015 008
amadeo@ual.es

SUMMARY

INTRODUCTION

EU Reference Laboratories (EURLs) aim to ensure high-quality, uniform testing in the EU and support Commission activities on risk management and risk assessment in the area of laboratory analysis.

Regulation (EC) No 625/2017 on official controls and other official activities performed to ensure the application of food and feed law, rules on animal health and welfare, plant health and plant protection products, defines tasks and responsibilities for all the EURLs. Some of them are: to provide National Reference Laboratories (NRLs) with analytical methods and diagnostic technics, and coordinate their application; to train staff from NRLs; to provide the Commission with scientific and technical expertise in relation to laboratory analysis and to collaborate with the competent laboratories in non-EU countries. Based on the aforementioned, some of the specific activities of the EURL for pesticide residues in fruits and vegetables are the organisation of proficiency tests, the coordination and edition of the Analytical Quality Control guidelines or the assistance to the Commission and EFSA for Art. 12 MRL reviews.

Every year the EURLs submit their work programmes demonstrating their contribution to the Commission's objectives and priorities and request annual EU funding to fulfil their tasks and functions to cover their operational costs.

Regulation (EU) 625/2017 Art 94(2):
European Union reference laboratories designated in accordance with Article 93(1) shall be responsible for the following tasks insofar as they are included in the reference laboratories' annual or multiannual work programmes that have been established in conformity with the objectives and priorities of the relevant work programmes adopted by the Commission in accordance with Article 36 of Regulation (EU) No 652/2014:
(taking into account Art 147 of (EU) 625/2017)

1 TO ENSURE AVAILABILITY AND USE OF HIGH QUALITY METHODS AND TO ENSURE HIGH QUALITY PERFORMANCE BY NRLs.

Please, provided activities related to Regulation (EU) 2017/625:
(Number of Sub-activity boxes can be adjusted by EURL)

- *Art. 94.2.a* ***Providing national reference laboratories with details and guidance on the methods of laboratory analysis, testing or diagnosis, including reference methods.***

- *Art. 94.2.b* ***Providing reference materials to national reference laboratories***

- *Art. 94.2.c* ***Coordinating the application by the national reference laboratories and, if necessary, by other official laboratories of the methods referred to in point (a), in particular, by organising regular inter-laboratory comparative testing or proficiency tests and by ensuring appropriate follow-up of such comparative testing or proficiency tests in accordance, where available, with internationally accepted protocols, and informing the Commission and the Member States of the results and follow-up to the inter-laboratory comparative testing or proficiency tests.***

- *Art. 94.2.l* ***Where relevant for their area of competence, cooperate among themselves and with the Commission, as appropriate, to develop methods of analysis, testing or diagnosis of high standards.***

Sub-activity 1.1 *Updating the EURL website and the EURL DataPool*

Objectives: To update and maintain the EURL-FV webpage, as well as contribute to the design and contents of the EURL DataPool (in cooperation with the other EURLs).

Description: The dedicated webpage "EURL for Fruits and Vegetables": http://www.eurl-pesticides.eu/docs/public/home.asp?LabID=500&Lang=EN
located at the EURLs common 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 with other official EU and third countries laboratories. The EURL-FV website holds information about the activities and events carried out by the EURL-FV as well as available published reports and scientific papers. It also holds forms, sheets and other documents ready to fill out on-line, thus facilitating management tasks and quality monitoring as well as direct links to other relevant websites. Constant collaboration between the EURL-FV and the EURL website management is necessary.
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, The EURL-FV Network, AQC Panel and Library.
The EURL-FV webpage will be reorganised with the aim of improving access to the different sections.

Expected Output:
- Forms and other information to conduct the 2019/2020 EUPTs will be uploaded onto EUPT-FV area.
- Information and main presentations of the webinars to be organized in 2019/2020 (see sub-activity 2.5) will be included into the Workshop topic:
EURL-WEBINARS:
http://www.eurl-pesticides.eu/docs/public/tmplt_article.asp?LabID=500&CntID=933&Theme_ID=1&Pdf=False&Lang=EN
- Access to the AQC Panel topic in the main EURL website and in our specific area will allow laboratories to consult the "Analytical quality control and validation procedures for pesticide residues analysis in food and feed." (SANTE/11813/2017). The site will allow constant feedback from the laboratories, so it will be useful in collecting information or suggestions from laboratories on the future revisions of the document.
- The results of the scientific activities developed by the EURL-FV will be published as technical or scientific documents, and the most relevant will be disseminated in the EURL-FV website through the Library section making them available for NRLs, OfLs and members of the scientific community.

Duration: Throughout 2019-2020

Sub-activity 1.2 *Follow up on requests from NRLs for providing analytical standards*

Objectives: To supply analytical standards to the NRLs under request.

Description: In order to promote the enlargement of the NRLs´ analytical scope and to offer them the possibility to verify their standard solutions, we will provide them with the analytical standards that they request.

Expected Output: At the beginning of 2019 and 2020, with the publication of the EUPT-FV21 and FV22 target lists (mandatory and voluntary), we expect to receive requests from NRLs to send them analytical standards of those pesticides newly included in the lists of possible pesticides of the EUPT-FV21. Furthermore, during the years, for example, with the publication of the coordinated multiannual control programme and the working documents on pesticides to be considered for inclusion in the national control programmes to ensure compliance with maximum residue levels of pesticides residues in and on food of plant and animal origin, we will provide them with the requested substances.

Duration: Throughout 2019-2020

Sub-activity 1.3 *Analysis of official samples*

Objectives: To carry out analysis of fruits and vegetable samples for the analysis of pesticide residues within the frame of National and EU official controls.

Description: The EURL-FV yearly analyses fruits and vegetable official samples as part of the national control programme and the EU coordinated multiannual control programme (MACP).

Expected Output: To analyse 3000 official samples during 2019 and 2020.

Duration: Throughout 2019-2020

Sub-activity 1.4 *Organisation of proficiency tests and follow up on the results*

Objectives: To organise proficiency tests simulating, as far as possible, the real sample conditions and to follow up on the results obtained by the NRLs and OfLs, emphasizing on unacceptable results.

Description: The European Proficiency Test on fruits and vegetables EUPT-FV21 and FV22, in accordance with previous schemes and statements, will be open to all OfLs, especially the NRLs of EU Member States. Additionally, laboratories from EFTA countries and other third countries 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 *Health and Food Audit and Analysis* recommendation and by request of DG SANTE.
This EUPT will be carried out in a way which simulates, as far as possible, the real sample conditions that arrive at a laboratory in 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 analytical performance control to the laboratories, a "blank" sample will be provided in each EUPT.
The commodity used for the test material of EUPT-FV21 will be red cabbage. The test material will contain incurred pesticides. The whole organisation of the EUPT will be very similar to that of previous EUPTs performed by the EURL-FV.
Additionally, a second intercomparative study using screening methods (EUPT-SM11 and SM12) will be organized in parallel to EUPT-FV21 and FV22, with the intention to promote the rapid screening of a large number of pesticide residues in the EU control laboratories over a very short period of time (72 h). In this way, the scope of the methods in screening mode could reach 500-700 compounds in a rapid inexpensive way. This information supports OfLs in checking their performance in these situations. It allows the EURL to identify the large scope laboratories ("scouting laboratories"). This activity is well accepted by OfLs as can be confirmed by the increasing participation (more than 70 EU OfLs) in previous rounds.
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 programmes and third countries will be invited to take part.
A third proficiency test will be organised in order to offer the NRLs and OfLs the possibility to test their methods with special commodities such as baby food, herbs, spices, etc. and evaluate their performance with regard to those commodities. Participation in this PT remains on a voluntary basis.
These Proficiency Tests will be based on the Quality Control Norm ISO/IEC 17043: Conformity assessment - General requirements for proficiency testing.
Once a year, the EURL-FV will organise a meeting of the EUPT-Panel (EURLs + EUPTs Scientific Committee) to discuss the evaluation of the EUPT results and to decide about the following years´ EUPTs.

Expected Output: Six proficiency tests will be organised during 2019 and 2020: EUPT-FV21, EUPT-FV22, EUPT-SM11, EUPT-SM12, EUPT-SC03 and EUPT-SC04. Their final reports will be uploaded to the EURL-FV webpage.

Duration: Throughout 2019-2020

Sub-activity 1.5 *Cooperation and meetings with other EURLs*

Objectives: To maintain a smooth channel of communication between the EURLs for pesticide residues.

Description: Constant collaboration with the other pesticide residue EURLs will be maintained for general management activities and other specific tasks. Additionally, every year the four EURLs will meet in order to discuss specific issues like the EURLs webpage, EUPTs or joint workshops. Inter-EURL-meetings in some cases in presence of DG SANTE representatives will be carried out with the aim to discuss, plan, coordinate or evaluate EURL-activities such as the preparation of work programs, EUPTs or web-applications. In certain cases, online-meetings or tele-conferences will be carried out.

Expected Output: The four EURLs for pesticide residues will meet, at least, for the AQC expert meeting, the EUPT Panel meeting and the Joint EURL/NRLs Workshop, in 2019. In 2020 they will meet during the EUPT Panel meeting and at the EPRW 2020.

Duration: Throughout 2019-2020

Sub-activity 1.6 *Development and validation of analytical methods: Comparison of the analytical response of different isomers of specific pesticides.*

Objectives: To evaluate analytical signals of individual isomers in order to verify if quantification is correct when using the mixture of isomers instead of the individual components. To avoid errors or inaccuracies generated by the use of wrong CAS Numbers (by analytical standards companies)

Description: In the past years´ EUPTs-FV, specific problems have been highlighted with pesticides composed of mixtures of isomers, such as spinosad (mixture of spinosyn A and spinosyn D) or metaflumizone (mixture of the isomers E and Z). Those compounds are marketed as a mixture of the isomers by the main analytical standards suppliers, and that´s how most of the laboratories purchase them. The assumption that the chromatographic signal of both isomers is the same, might imply the incorrect quantification of the compounds. Recently, some companies started selling the individual components of some of those pesticides. The EURL-FV will evaluate the signals of the individual isomers and assess whether a correct quantification is possible when using the mixture of isomers instead of the individual components. This evaluation will be made with different instruments and in different commodity groups. Additionally, possible errors or inaccuracies generated by the use of wrong CAS Numbers by the analytical standards companies will be detected. In the past year, several cases of wrong or inaccurate CAS Numbers were detected in two of the main companies selling pesticide analytical standards. In both cases, the problem was derived from the existence of isomers. Therefore, the EURL-FV will carefully revise the inventory of commercial websites of the main suppliers of pesticide analytical standards, focusing on isomers, with the aim to clarify and/or amend any type of mistake or imprecision. This information will also be notified to the NRLs/OfLs.

Expected Output: 1 Technical report and/or scientific publication.

Duration: 4 months

Sub-activity 1.7 *Development and validation of analytical methods: Extension of the comparison of commercial certified standard solutions and organisation of ring test.*

Description: Certified standard solutions are requested more and more by the laboratories, as they bring significant time savings and theoretically avoiding mistakes. In 2018, commercial mixes of certified standard solutions from four different external specialised firms were compared by the EURL-FV and seven additional NRLs/OfLs. In some cases, the concentration of specific pesticides showed a significant deviation from the certified concentration. However, the results don't constitute a sound scientific basis for taking active measures. In order to expand the project, the number of supplying companies will be extended, and the capacity of the NRLs/OfLs to analyse them

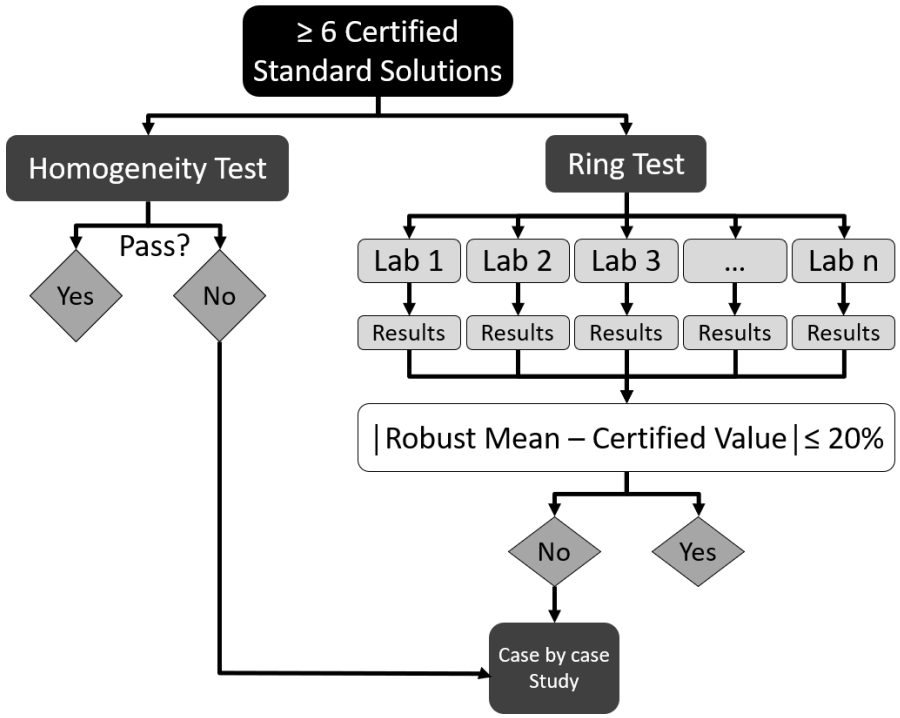
will be tested by means of a ring test. Such extension of the project would allow the NRLs/OfLs to have a broader view of the current state of the commercial mixes of certified standard solutions, whose use has increased in recent years.

The extension will cover at least six different companies supplying certified standard mixes containing most of the MRM amenable compounds included in the EU-MACP (analysed by both LC and GC). The ring test will involve 30 laboratories approximately.

In a first step, the EURL-FV will analyse all the certified standard solutions and the results will be statistically evaluated with an homogeneity test, according to ISO 13528, Annex B or to the International Harmonized Protocols jointly published by ISO, AOAC and IUPAC. If any of the compounds doesn´t pass the homogeneity test, a case by case study will be made.

The second step will be the ring test with approximately 30 participants. For each compound of each commercial mix, the robust mean will be calculated considering all the reported results, and will be compared to the concentration value certified by the supplying company. If the difference between those two values is above 20%, a case by case study shall be performed. The flow chart below represents the different steps, but we will discuss them with the EUPT Scientific Committee.

A detailed report including results obtained by the laboratories and the names of the companies will be presented and submitted to the OfLs. This report will facilitate the lab the selection of the most effective solution/company for routine analysis in the lab. Avoiding errors with specific compounds or bad performing providers.



Expected Output: 1 Technical report and/or scientific publication and one ring test final report.

Duration: 4 months

Sub-activity 1.8 *Development and validation of analytical methods: Evaluation of the influence of the homogenisation step in the analytical results.*

Objectives: To evaluate the influence of sample processing in the results.

Description: As part of the analytical method, the sample processing step is important when developing analytical methods, as it is a source of systematic and random error contributions. Even when the sample comminution step has been previously validated, very often its influence in the results is dismissed or minimised.
The EURL-FV will study the influence of the sample comminution step in three different commodities (cherry tomatoes, grapes and mandarin, for example) by spiking before and after comminution of the samples and comparing the results. In a second step of the activity, one of the commodities will be selected to organise a ring test, in which the test item will not be the homogenate commodity, but the whole fruits/vegetables. This way, the processing step will be included in the evaluation of the results, which will be compared with those EUPT results in which sample comminution is not included in the analytical process of each individual laboratory.

Expected Output: 1 Technical report and/or scientific publication and one ring test final report.

Duration: 4 months

Sub-activity 1.9 *Development and validation of analytical methods: Application of new chromatographic columns in order to study their effectiveness.*

Objectives: To assess the analytical capabilities of new materials in LC chromatographic columns.

Description: Nowadays, big developments are being made in the field of chromatographic columns, leading to reduction in the time of analysis, of the re-equilibration time, and, consequently, in the volume of solvents consumed. The market offers new materials such as nonporous or core-shell (superficially porous) particles, which provide columns with speed, high separation performance or even with an increase of the column efficiency. In order to evaluate those new materials for the analysis of pesticide residues, the EURL-FV will compare the analytical capabilities of new chromatographic columns in different commodity groups using multiresidue methods.

Expected Output: 1 Technical report and/or scientific publication.

Duration: 4 months

Sub-activity 1.10 *Development and validation of analytical methods: Evaluation of low flow chromatography for sensitivity enhancement.*

Objectives: To increase the sensitivity of the methods by modification of the conditions of analysis.

Description: One of the general problems observed with matrix effects or with especially difficult matrices is the need to get more sensitivity in the instruments. An easy and fast way to achieve low LOQs is by modifying the conditions of the analysis, and more specifically, the flow in liquid chromatography. The EURL-FV will study and evaluate to which extent those reductions in the flow can help the laboratories in achieving an increase in sensitivity with low or no changes in the instrumental hardware.

Expected Output: 1 Technical report and/or scientific publication.

Duration: 4 months

Sub-activity 1.11 *Development and validation of analytical methods: Reduction of the time of analysis to improve the workflow of the laboratories.*

Objectives: To reduce the time of analysis of the GC and LC Multiresidue methods to approx. 15 minutes.

Description: Reducing the time of analysis is of great interest for the laboratories in order to improve their workflow. Analysis by Gas Chromatography (GC) is usually time consuming, as temperature ramps take approximately 30 minutes, which makes the production of results slow.
In 2013, the identification criterion for retention time chromatography in the SANTE guidelines changed from a relative value to a fixed value. Nowadays, that fixed value, ±0.1 min. This value has a different weight depending on the total time of analysis. This means that the selectivity obtained with a window of only ±0.1 min is similar if we are talking about times of analysis of 15 or 20 minutes. But if the time of analysis is reduced to 7-10 minutes, the same criterion loses its importance and value. Nowadays there is a clear tendency to short the run times and it is necessary to know the real effectiveness of this trend.
Another point to consider is that, in many cases, the width of the chromatographic peak can vary between 6 to 20 seconds according to the number of chromatographic plates of the column capacity. Both situations are similar, and those two ideas have to be evaluated in order to fix limits or criteria, so the application of the AQC guidelines is effective and harmonized for all the laboratories. For sure that some laboratories have information on this but, a general evaluation should be of interest to improve the knowledge and finding a correct application. The EURL-FV will work in the direction of improving that situation. A Multiresidue method will be developed for both LC and GC, with similar runtimes in both of them, in line with Art.94, 2(a) “providing national reference laboratories with details and guidance on the methods of laboratory analysis, testing or diagnosis, including reference methods”.

Expected Output: 1 Technical report and/or scientific publication.

Duration: 4 months

Sub-activity 1.12 *Development and validation of analytical methods: Evaluation of the three main Multiresidue methods and validation of new substances of SANCO/12745/2013 and Art.12.*

Objectives: Validation of new substances included in Chapter 4 and Annex II of the working document SANCO/12745/2013 and of those under review in Art.12.

Description: The three main multiresidue extraction methods used in the EU (QuEChERS, new-Luke and SweEt) will be evaluated in three commodity groups (high water content, high water and acid content and high fat content) at low concentration levels in order to support the EU NRLs/OfLs in the enlargement of their analytical scope, especially with those pesticides included in Chapter 4 and Annex II of the working document SANCO/12745/2013 and of those under review in Art.12. The new compounds will be validated at least at two concentration levels, being the lowest one at least 5 µg/kg. The validation report will include all the information about validation parameters, transitions, ion rations, etc.

Expected Output: 1 Technical report, e-mail sent to the network of NRLs/OfLs.

Duration: 4 months

Sub-activity 1.13 *Development and validation of analytical methods: Development and validation of a Multiresidue Method for high fat content commodities.*

Objectives: Development and validation of a routine MRM method for high fat content commodities of plant origin.

Description: The EURL-FV will optimise and validate a method for the analysis of residues of pesticides included in the MACP in high fat content commodities of plant origin for which no effective analytical methods that can be implemented in routine are available. The selected commodities will be palm fat, cocoa beans, sesame seeds/paste, olives or coffee, among others. Even though they are not included in Annex A of the MACP, they are of high interest for the laboratories, especially for those performing official controls on imported products under Regulation (EC) No 669/2009.
This activity will be developed in collaboration with the EURL-AO (and EURL for high fat content commodities), who will implement the developed methods in their laboratory and will perform a small monitoring of pesticide residues in real samples of such nature.

Expected Output: 1 Technical report and/or scientific publication, 1 report with results of the monitoring study.

Duration: 4 months

Sub-activity 1.14 *Development and validation of analytical methods: Evaluation of the injection of low matrix amount by dilution of the extracts.*

Objectives: To assess the advantages obtained when injecting low amounts of matrix into the chromatographic system after dilution of the extracts.

Description: One of the problems encountered in the analysis of "dirty matrices" such as oils, spices or high fat content commodities is how they affect the systems, in the sense of contamination with matrix components. Even when applying extensive clean-up procedures, co-extracted components of the matrix enter the analytical instruments, reducing that way the useful life of the components of the equipment, and thus, making it necessary to perform maintenance operations (such as replacing of the liners, cleaning the source or the skimmers…) more often than usual. The problem for the EU laboratories about instrumentation is, in many cases, related to personnel and maintenance of the instruments, as in general, the annual costs of those two factors are much higher than the purchase of the equipment. By preventing the introduction of such high amounts of co-extracted components there will be a reduction in the maintenance of the systems, which will imply savings in terms of time, money and effectiveness, as the maintenance costs can be reduced very much avoiding that high quantities of matrix components are injected, trying to display the savings in maintenance and lower LOQs that having new technology can imply. The reduction of the amount of matrix introduced into the instruments will be tackled through dilutions of the extracts, that will be possible only with the use of new generation-highly sensitive instruments. A high percentage of the EU NRLs/OfLs have highly sensitive instruments or are in the way to purchase them, and that will enable them to dilute without losing sensitivity. In a population of approximately 170 NRLs/OfLs, there are always laboratories that are investing in new instrumentation. The EURL-FV will evaluate the optimal dilution-maintenance ratio for routine laboratories analysing a high number of samples per week.

Expected Output: 1 Technical report and/or scientific publication.

Duration: 4 months

2 TO PROVIDE SCIENTIFIC AND TECHNICAL ASSISTANCE TO NRLs

Please, provided activities related to Regulation (EU) 2017/625:
(Number of Sub-activity boxes can be adjusted by EURL)

- *Art. 94.2.d* ***Coordinating practical arrangements necessary to apply new methods of laboratory analysis, testing or diagnosis, and informing national reference laboratories of advances in this field.***
-
- *Art. 94.2.e* ***Conducting training courses for staff from national reference laboratories and, if needed, from other official laboratories, as well as of experts from third countries.***
-
- *Art. 94.2.g* ***Providing information on relevant national, Union and international research activities to national reference laboratories.***

Sub-activity 2.1 *Providing technical and scientific support to NRLs*

Objectives: To support the NRLs in the development of their analytical methods and the enlargement of their scope of analysis.

Description: The results of the scientific activities developed by the EURL-FV will be published as technical or scientific documents, depending on the impact of the activities. They will be disseminated in the EURL–FV website (www.eurl-pesticides.eu), through the Library section, making them available for OfLs and members of the scientific community. The main EURL-FV contributions to international conferences will also be uploaded to the EURL–FV website.
Additional assistance to the NRLs will be supported by constant communication via e-mail and telephone.

Expected Output: In 2019 and 2020 at least ten new technical reports and/or scientific papers will be published on the website.

Duration: Throughout the year.

Sub-activity 2.2 *Organisation of workshops*

Objectives: To organise a workshop with the NRLs to act as a platform for information exchange.

Description: In 2019, the annual EURL/NRLs-FV workshop will be celebrated together with the other EURLs for pesticide residues, in Copenhagen, Denmark, and organised by EURL-CF (September 25th-27th 2019). In 2020 the workshop will be dedicated to NRLs-FV (organised by EURL-FV). In both cases they will consist of technical and scientific communications and round tables. Extensive interaction with all NRLs that will attend will be the main objective. Attention will also be paid to the evaluation of the EUPT results and their relation with the various analytical methods applied by the NRLs and OfLs establishing actions for improvement.
NRLs representatives from all the EU Member States will participate in the workshops.

Expected Output: Report on Workshop, pdf of presentations on website, Evaluation forms (satisfaction index of participants and their comments).

Duration: 2 months

Sub-activity 2.3 *Organisation of training courses*

Objectives: To organise a training course for staff from national reference laboratories in order to provide them with scientific and technical assistance.

Description: The EURL-FV will support the NRLs with technical "lab activities". This technical assistance will consist on the selection of a limited group of NRLs (approx. eight) to develop technical training of 1-2 days duration at the EURL-FV laboratory (Almería, Spain). The training course in 2019 will be focused on lab capability (considering the substances in SANCO/12745/2013). In 2020, the topic will be decided at a later stage, in consultation with DG SANTE.

Expected Output: Training material (presentations, excel files) on website, Evaluation forms (satisfaction index of participants and their comments).

Duration: 2 months

Sub-activity 2.4 *Visits to NRLs*

Objectives: On the spot visits to the NRLs in order to give them technical and scientific support.

Description: Each year, the EURL-FV will visit one NRL with deficits in the areas of EUPT-performance, analytical scope or country network of OfLs. The NRLs to be visited will be selected based on the results of the different EUPTs-FV, and will be specified at a later stage in consultation with DG SANTE.

Expected Output: Mission Report and follow-up report.

Duration: 2 weeks

Sub-activity 2.5 *Organisation of webinars*

Objectives: To disseminate scientific and technical results in an interactive way.

Description: The EURL-FV in collaboration with EURL-AO/CF/SRM, will conduct webinars with the aim to disseminate technical information to the NRLs and OfLs in a cost effective but still interactive way These webinars will be coordinated by the EURL-FV and will be especially focused on dissemination of EUPT results and the main analytical methods developed. Virtual conference services of these activities will be subcontracted.
During 2019 and 2020 the EURL-FV will organize at least six webinars, being the main relevant topics, those activities related to the Work Programme 2019-2020, such as the results of the EUPT-FV21/FV22, EUPT-FV-SM11/12, EUPT-FV-SC03/SC04.

Expected Output: Webinar presentations uploaded to the EURL-FV webpage.

Duration: 2 weeks

Sub-activity 2.6 *Updating and publication of the list of NRLs*

Objectives: To update the network of NRLs and OfLs.

Description: The network of NRLs and OfLs is constantly changing, and for this reason it is necessary to keep it updated. Every year before the participation in EUPT-FV, the EURL-FV contacts the NRLs in order to obtain the detailed list of OfLs. In parallel, the EURL DataPool also gathers information about possible changes in the list.

Expected Output: Updated list of NRLs published in the EURL-FV website.

Duration: 1 month

3 TO PROVIDE SCIENTIFIC AND TECHNICAL ASSISTANCE TO THE EUROPEAN COMMISSION AND OTHER ORGANISATIONS

Please, provided activities related to Regulation (EU) 2017/625:
(Number of Sub-activity boxes can be adjusted by EURL)

- *Art. 94.2.f* ***Providing scientific and technical assistance to the Commission within the scope of their mission.***

- *Art. 94.2.h* ***Collaborating within the scope of their mission with laboratories in third countries and with the European Food Safety Authority (EFSA), the European Medicines Agency (EMA) and the European Centre for Disease Prevention and Control (ECDC).***

- *Art. 94.2.i* ***Assisting actively in the diagnosis of outbreaks in Member States of foodborne, zoonotic or animal diseases, or of pests of plants, by carrying out confirmatory diagnosis, characterisation and taxonomic or epizootic studies on pathogen isolates or pest specimens.***

Sub-activity 3.1 *Information on LOQs, residue definitions and standards for Art. 12 MRL reviews, new active substances and other substances, when requested by COM*

Objectives: To give technical and scientific support to the Commission when requested.

Description: This horizontal task with the four EURLs and coordinated by EURL-SRM and EURL-CF will give scientific support to the Commission as regards complex residue definitions or other analytical parameters such as LOQs for Art. 12 of Regulation (EC) No 396/2005 proposals, new substances and other substances.

Expected Output: In 2019 and 2020 this activity will continue as in previous years.

Duration: Throughout 2019-2020

Sub-activity 3.2 *Assistance to COM for the EU MACP and the monitoring working document*

Objectives: To give technical and scientific support to the Commission in the drafting of the EU MACP.

Description: 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 the coordinated multiannual control programmes of the Union published in 2020 and 2021. This assistance will also be related to the update of the list of pesticides included in the monitoring working document.

Expected Output: To contribute to the new versions of the MACP and monitoring working documents.

Duration: 2 weeks

Sub-activity 3.3 *Contribution to the revision of the analytical quality control guidelines*

Objectives: Update and edition of EU Guidelines on Quality Control Procedures.

Description: In order to continue the process of achieving complete harmonisation measures for pesticide residue analysis within the EU, the SANTE document "Analytical quality control and method validation procedures for pesticide residues analysis in food and feed" (SANTE/11813/2017) needs to be revised and updated on continuous basis.
Therefore, the aim is to carry on with the specific forum (AQC Panel) on the EURL-FV website to facilitate the discussion and to point out difficulties and improvements on the EU AQC 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 AQC Guidelines, to be presented in the joint workshop every two years.

Expected Output:
The AQC Scientific Committee together with the four EURLs for pesticide residues will meet three times in 2019 and once in 2020 in order to discuss about the possible changes and modifications to the SANTE Guidelines. The two first meetings in 2019 will be organised by EURL-FV (the second one in combination with the EUPTs Scientific Committee expert meeting). The third meeting of 2019 will take place in Copenhagen (organised by EURL-CF), prior to the Joint workshop, where the preliminary document will be produced for the final voting of the NRLs. If it succeeds, after approval by the COM, the new version of the document will be edited at the end of the year 2019.
In 2020, the expert meeting will merge the AQC and EUPT Scientific Committee. During the EURL-FV/NRLs-FV workshop in 2020, comments and possible changes for new version will be collected.
The EURL-FV will edit and distribute electronically and in hard copy among NRLs and OfLs the new version of SANTE Guidelines.

Duration: 1 month

Sub-activity 3.4 *General technical support to the Commission*

Objectives: To provide technical and scientific support to the Commission when requested

Description: Technical and scientific support to the Commission will be provided when requested. Constant communication will be established via e-mail, phone calls or meetings. Whenever the need arises, technical advice will be provided to the DG SANTE upon request.

Expected Output: Attendance to the Standing Committee (PAFF) meetings at request of the DG SANTE and assistance to the audit team of the department *Health and Food Audits and Analysis* if they so request it, by accompanying the inspectors in the audit visits giving technical support as a "national expert".

Duration: Throughout 2019-2020

Sub-activity 3.5 *Collaboration with European and international organisations (EFSA, CEN, ISO, …) Comments to EFSA on LOQs, standards and methods at the stage of the draft reasoned opinion.*

Objectives: To provide scientific support to EFSA.

Description: Involvement in the EFSA residue evaluation process by giving opinions and advice, especially regarding residue definition and post registration analytical methods. In the case of new substances, it is estimated to carry out experimental analytical work if requested by the DG SANTE. This is a horizontal task with the four EURLs and coordinated by EURL-SRM and EURL-CF.

Expected Output: In 2019/2020 this activity will continue as in previous years.

Duration: Throughout 2019-2020

Sub-activity 3.6 *Collaboration with European and international organisations (EFSA, CEN, ISO, …) Participation in the EFSA networking group on pesticides residues monitoring*

Objectives: To provide technical and scientific support to EFSA in the EFSA networking group on pesticides residues monitoring.

Description: The EURL-FV yearly collaborates with EFSA with the attendance to the meetings of the Networking Group on Pesticide Monitoring, with presence of the Member States, the EFTA countries, the European Commission and EFSA. The technical and scientific assistance includes all matters related to pesticide residues monitoring covered by Regulation (EC) No 396/2005, including the preparation of the EFSA Annual Reports on Pesticide Residues and the review of the EFSA standardised data model for reporting the monitoring results.

Expected Output: In 2019 and 2020, one representative from the EURL-FV will attend the meetings of the networking group, celebrated in Spring and in Autumn.

Duration: 2 weeks

Sub-activity 3.7 *Collaboration with European and international organisations (EFSA, CEN, ISO, …) Participation in the meetings of the CEN/TC 275/WG 3 Working group Pesticides.*

Objectives: To participate in the development of standardised methods (CEN methods)

Description: Since 2015, the EURL-FV participates in the Working group 3 (Pesticides, CEN/TC 275/WG 3) dedicated to the standardization of methods for the determination of pesticide residues in food. Furthermore, the EURL-FV is directly involved in the modular QuEChERS, being the project leader of that CEN method.

Expected Output: Attendance to one meeting per year in the German institute for standardization, DIN (Berlin, Germany)

Duration: 2 weeks

Sub-activity 3.8 *Collaboration with Third Countries.*

Objectives: To promote the international networking and dissemination of information and activities from the EURL-FV, especially in countries with intensive European export-import relationships.

Description: This assistance will be supported by, 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. Important information for selection of laboratories to participate in EUPT will come from the *Health and Food Audits and Analysis* section as a consequence of their inspections.
Laboratories from EFTA countries and other third countries (like China, Colombia, Costa Rica, Kenya, Peru, Serbia, Singapore, Thailand or Uruguay, who participated in EUPT-FV20) will be invited to participate in the EUPTs-FV. These countries might be invited to take part after *Health and Food Audit and Analysis* recommendation and by request of DG SANTE.

Expected Output: In 2019 and 2020 it is foreseen to establish scientific collaboration with Uruguay, and the EFTA countries Norway and Switzerland. Additionally, it is also expected to provide support to Latin American countries in the organisation of Proficiency Tests and preparation of monitoring programmes.

Duration: Throughout 2019-2020

Sub-activity 3.9 *(Participation in symposiums, workshops and seminars for the dissemination of scientific information.*

Objectives: To disseminate the EURL-FV activities to the scientific community.
Description: The most relevant results of the scientific activities developed by the EURL-FV will be presented as posters and/or oral presentations in international workshops.

Expected Output: Oral presentations by the EURL-FV of the scientific activities developed in the laboratory will be presented in 2019 in the Latin American Pesticide Residue Workshop (LAPRW 2019, Foz do Iguazú, Brazil), in the IUPAC International Congress (Ghent, Belgium), and in RAFA (Recent Advances in Food Analysis 2019, Prague, Czech Republic), among others. In 2020 dissemination of the EURL-FV activities will be made through European Pesticide Residue Workshop (EPRW 2020, Granada, Spain) and the AOAC International meeting and exposition (Orlando, USA).

Duration: Throughout 2019-2020