WORK PROGRAM

FOR THE
EU REFERENCE LABORATORY
FOR PESTICIDE RESIDUES REQUIRING
SINGLE RESIDUE METHODS

Time: January-December 2012

LEGAL FUNCTIONS AND DUTIES

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

Contents:

A. General tasks

B. Development and validation of analytical methods

C. Quality assurance and quality control including the organisation and implementation of proficiency tests

D. Technical and scientific support to NRLs/ EU official labs and third country labs

A. General Tasks

A.1 EURL meetings for coordination

Tasks: Missions will be carried out by EURL-SRM members to participate in inter-EURL-meetings; aiming at planning, coordinating, evaluating, updating or conducting EURL-activities such as work programs, proficiency tests (PTs), method validations, joint web-platforms. Date and place of these meetings will be decided later. Meetings in presence of the EURL and EUPT-advisory group will be organized by the EURL-FV.

Period: *To be decided later following consultations with the other EURLs and DG-SANCO.*

A.2 Technical and scientific support to DG-SANCO

Tasks: The EURL-SRM will continue supporting DG-SANCO's efforts in drafting a risk-based and meaningful plan for the EU-coordinated control program (CCP). The EURL-SRM will furthermore continue providing scientific assessments, opinions and advices to DG-SANCO as requested. These activities will include the involvement in the EFSA residue evaluation process, on behalf of the DG-SANCO, by giving opinions and advices as regards residue definitions and routine validated methods with focus on their practical applicability in labs conducting official pesticide residue analyses. Jointly with the other EURLs the EURL-SRM will, furthermore, assist DG-SANCO in the revision of Document No. SANCO/10684/2009. Missions to meetings in Brussels, Parma or elsewhere will be carried out as necessary and as requested by DG-SANCO.

Period: *As requested by DG-SANCO.*

A.3 Compilation of annual financial and technical reports for 2011

Tasks: see title

Period: *March 2012*
Deliverables: Reports in March 2012

A.4 Preparation of work program for 2013

Tasks: see title

Period: *July 2012*
Deliverables: Work Program in July 2012

A.5 Cooperation with international organizations

Tasks: Cooperation with int. organizations such as the Codex Committee on Pesticide Residues (CCPR), CEN, FAO/IAEA will continue. As far as requested by DG-SANCO, missions to attend meetings will be conducted.

A.6 **EURL web-service: upgrading, maintenance, programming (Horizontal Task)**

Tasks, period: see sub-topics below

A.6.1 **EURL-Web-Portal**

Background: The Internet Portal of the four pesticide EURLs (www.eurl-pesticides.eu) aims to facilitate dissemination of information from EURLs to NRLs and OfLs in an efficient, timely and transparent way.

Task: In 2011 the portal and the individual web-sites of the EURLs will be further expanded and gradually filled with valuable information. Still missing features will be gradually programmed according to the needs of the EURLs and the Network. The strategy to be followed will be discussed with the other EURLs and in close consultation with DG-SANCO.

Period: *Throughout 2012*
Deliverables: updated version of website

A.6.2 **EURL DataPool**

Background: An "**EURL DataPool**" entailing numerous databases with information of practical interest to the network-laboratories has been installed and expanded within the frame of the previous work programs (www.eurl-pesticides-datapool.eu):
Databases:

a) Method Validation DB
b) Methods DB
c) Pesticides DB
d) Stability of Standards DB
e) Pesticide Authorizations DB
f) Commodities DB
g) Lab-Network DB
h) EUPT-Archive DB

Tasks: Existing databases (see background) will be upgraded by expanding and improving their structure as well as the tools for on-line data-retrieval. The collection of data from various sources and its storage in the database will continue.

Period: *throughout the year*
Deliverables: updated version of datapool

B. Development and Validation of Analytical Methods

B.1 Quick Polar Pesticides Method (QuPPe Method)

Background: The EURL-SRM has developed a method for the simultaneous analysis of the several highly polar pesticides including ethephon, glyphosate, glufosinate, maleic hydrazide and fosetyl aluminium and metabolites thereof. The method involves a common extraction followed by LC-MS/MS analysis in groups.

Task: Further method development will be performed to expand the scope of the method by additional highly polar pesticides / metabolites. Efforts to pursue the standardization of the method in CEN will continue.

Period: *throughout the year*
Deliverables: Updated method in Website in H2 2012

B.2 Solutions for pesticides requiring modified MRMs

Background: Several pesticides and legally relevant metabolites are known to pose problems in analysis and are thus considered as “difficult” or non-amenable to multiresidue methods. In many cases analysis is possible following certain modifications of traditional multiresidue methods. Such modifications may entail pH-adjustment, temperature control, special measurement conditions, cleavage reactions to release conjugates etc..

Task: The experiments and studies to identify, characterize and group these types of pesticides will be continued. Modifications of the multiresidue methods will be introduced and communicated to the laboratories within the network. Priority will be given to pesticides and metabolites of high agricultural relevance or those included in EU coordinated control plans.
Period: *throughout the year*
Deliverables: Reports in Website in H2 2012 and in 2013

B.3 Study applicability of DART-Technique for the screening of selected SRM-pesticides [1)]

Background: DART is a novel technique allowing qualitative / semi quantitative analysis of analytes located on sample surfaces without chromatographic separation and typically without or with minor sample preparation. The entire analysis is fast making the technique potentially suitable for screening applications.

Task: The EURL-SRM will perform experiments to check whether DART can be used to screen for various types of non-MRM-amenable pesticides, thus allowing the selection of samples to be further analysed by quantitative procedures. Priority will be given to pesticides and metabolites of high relevance in agriculture or those included in coordinated control plans of the EU.

Period: *throughout the year*
Deliverables: Reports in Website in H2 2012 and in 2013
1) Note/disclaimer: **This activity may be shifted to 2013 in case of budget cuts**

B.4 Studies on the analysis of selected volatile pesticides in F&V[2)]

Background: Various highly volatile pesticides are employed in agriculture and crop storage as fumigants. As such pesticides are typically non-amenable to multiresidue methods they are typically rarely analyzed by official control laboratories. Simple methodologies are thus required.

Task: The EURL-SRM will conduct experiments to check the simultaneous analysis of various volatile pesticides in fruit and vegetable commodities. Priority will be given to pesticides/ metabolites of high relevance in agriculture and those included in the EU coordinated control programme.

Period: *throughout the year*
Deliverables: Reports in Website in H2 2012 and in 2013
2) Note/disclaimer: **This activity may be shifted to 2013 in case of budget cuts**

B.5 Studies on the analysis of selected polar pesticides in milk[3)]

Background: certain highly volatile pesticides, may appear as residues in animal milk following consumption of contaminated feed. Methods of analysis of such pesticides in milk are thus necessary.

Task: The EURL-SRM will conduct experiments to check the simultaneous analysis of various polar pesticides in milk. Priority will be given to pesticides / metabolites of high relevance in agriculture, those included in the EU coordinated control programme as well as on those that, based on information submitted by the applicants within the frame of pesticide registration, were demonstrated to produce relevant residues in milk. In collaboration with the EURL-AO and the EURL-CF, it is also planned to conduct a feeding study of mammals producing milk for human consumption in order to check the residue levels of pesticides following the consumption of feed containing known levels of selected pesticides at realistic concentrations.

Period: *throughout the year*
Deliverables: Reports in Website in H2 2012 and in 2013
3) Note/disclaimer: The development of methods may have to be shifted to 2013 in case of budget cuts. The successful conduction of the feeding study may depend on factors beyond the influence of the EURL-SRM such as availability of suitable animals, availability of milk as well as on permissions by relevant authorities if these are necessary. The establishment/availability of suitable methods for the analysis of the potential residues may also be a restriction.

B.6 Study for sources of errors in DTC analysis as CS_2

Background: Dithiocarbamates (DTCs) are among the pesticides most widely used in agriculture. Analytical methods involving cleavage and determination of the released CS2 are conducted by most labs. The majority of the labs use spectrophotometric methods, following a derivatization of the released CS2. Increasingly used are methods entailing GC-determination of the CS2 following its partitioning into a non-polar solvent. Within the frame of PTs conducted by the EURL-SRM, extensive variations of the submitted results (large Qn-RSDs) were observed.

Tasks: The influence of various factors affecting the analytical results will be studied.

Period: *throughout the year*
Deliverables: Report H2 2012

C. QA/QC (Quality Assurance and Quality Control)

C.1 EU Proficiency Test SRM 7

Task: A proficiency test covering single residue methods (SRM) will be performed using dry pulses as commodity (most probably lentils).
Participants will be able to receive documents and instructions through the specific section of the EURL website. Each participant will receive a detailed printed and electronic report summarizing the PT-scope, results, data treatment and additional information of the methods employed by the participants.

Period: *H1 of 2012*
Deliverables: Report of EUPT by December 2012

C.2 Attend joint meeting to discuss and evaluate EUPT results

Period: *H2 of 2012*
Deliverables: Report of EUPT by December 2012

C.3 Establish criteria to assess PT-underperformance and overall PT-performance (HORIZONTAL ACTIVITY)

Background: EUPTs are a very valuable tool to assess the performance of laboratories in pesticide residue analysis. In case of underperformance corrective and follow-up actions are indicated both by the labs as well as by the responsible NRLs and EURLs. In certain cases training courses may be indicated. In the case of individual PT-results underperformance is well defined as it is reflected by the absolute z-score. When looking at multiple results generated within one PT or throughout many PTs, suitable underperformance criteria are yet to be set considering both analytical results and scope.

Task: In cooperation with the other three EURLs defined criteria will be established allowing to evaluate whether a laboratory was underperforming in EUPTs. The criteria to be established should be simple and comprehensive and suitable for online evaluation using the EUPT-archive.

Period: Throughout the year
Deliverables: Updated version of the General Protocol for EUPTs in 2012

C.4 Assistance to labs in case of PT-underperformance

Task: see under D.

C.5 Create a “Pool of Proficient SRM-Labs” and promote concept of sub-contracting analyses within the Lab-Network

Background: Within the frame of official controls, SRM analytes are less frequently analyzed compared to MRM analytes. OfLs often complain that limitations in the available resources prevent them of establishing suitable methods for the analysis of SRM-analytes or applying such methods in case they are established. Lab-cooperation and subcontracting of analyses will help to reduce the overall number of labs that will have to establish or apply SRMs thus improving overall efficiency and frequency of analysis of SRM compounds.

Task: Following performance criteria that will be established in collaboration with the other 3 EURLs and the EUPT-advisory group, a list of laboratories considered as proficient for the analysis of individual SRM-compounds will be established (“Pool of Proficient SRM-Labs”). This list will be updated as new PT results become available. Laboratories considered as proficient will be contacted to get their consent to appear in the list. The final list will be published in the EURL-portal.

Period: H1 of 2012 and update in H2 2012
Deliverables: List available in EURL-portal

D. Technical and scientific support to NRLs/EU official labs and third country labs

The dissemination of information to NRLs, OfLs and third country labs is achieved via personal communication and presentations in conferences and workshops (see D.1 - D.3) as well as with the help of the EURL-Web-Portal (A.6.1) and the EURL-Datapool (A.6.2).
The establishemnt of a comprehensive Network-DB is contributing in further strengthening the network (see A.6.2).

D.1 Annual Workshop

Task: A joint workshop will be performed by the EURL-SRM, EURL-FV and EURL-CF in Cyprus. The venue was chosen following an invitation by the Cypriot Authorities on the occasion of the EU-precidency helt by Cyprus in the second half of 2012. All relevant parties including DG-SANCO were consulted. Corresponding NRLs from selected countries will be invited to participate. The workshop will cover technical aspects as well as lectures and discussions on analytical, EUPT and QC aspects. Special needs and problems of the laboratories to participate as well as of DG-SANCO will be considered in the design of the workshop. The EURL-SRM will take over the full organization and administration of the workshop in collaboration with the local NRL.

Period: *To be decided*
Deliverables: Financial report within 2 months of the workshop as well as Technical Report incl. feedback evaluation within 4 months of the workshop. The technical report will be presented in the website.

D.2 Training event for selected labs in Stuttgart

Task: A small scale training-workshop will be conducted in Stuttgart for up to 12 participants. Laboratories to be invited will be selected based on PT-performance as well as importance within the country as regards the volume of official controls and may also include OfLs that are not NRLs. The workshop will cover technical aspects as regards the analysis of SRM-pesticides and exchange of experiences. Special needs and problems of the laboratories selected to participate will be considered in the design of the training program. The participants will be asked to cover parts of the costs (e.g. travelling fees). Additional ad-hoc trainings will be conducted as required.

Period: *To be decided*
Deliverables: Technical Report incl. feedback evaluation within 4 months of the workshop. The technical report will be presented in the website.

D.3 Interaction with Labs (via E-mails, surveys, etc.)

D.4 Joint visit of 1 NRL + Seminar (with EURLs FV&CF)

Task: NRL(s) of one selected country will be jointly visited by representatives from the EURL-SRM, FV and CF. The country will be selected in agreement with DG-SANCO giving emphasis on poor EUPT scope, performance and participation over last years.
Prior to the inspection a detailed study of the EUPT results during the last years as well as the current analytical scope of all OfLs will be carried out. During the visit the possible reasons for the bad performance will be discussed, and advices will be given to improve performance and expand the scope. The EURL-SRM will send 1 representative to this visit.

Period: *To be decided*
Deliverables: Visit report within 4 months of the visit

D.4 **Analysis of official samples, counter analysis (if required)**

The EURL will ask DG-SANCO for approval of any activity this concerning and request for additional eligible budget, if required.