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

Activity Programme 2015

Article 32 of the EU Regulation No 882/2004

TITLE III

REFERENCE LABORATORIES

Article 32

Community reference laboratories

1. The Community reference laboratories for feed and food referred to in Annex VII shall be responsible for:

(a) providing national reference laboratories with details of analytical methods, including reference methods;

(b) coordinating application by the national reference laboratories of the methods referred to in (a), in particular by organising comparative testing and by ensuring an appropriate follow-up of such comparative testing in accordance with internationally accepted protocols, when available;

(c) coordinating, within their area of competence, practical arrangements needed to apply new analytical methods and informing national reference laboratories of advances in this field;

(d) conducting initial and further training courses for the benefit of staff from national reference laboratories and of experts from developing countries;

Article 32 of the EU Regulation No 882/2004

(e) providing scientific and technical assistance to the Commission, especially in cases where Member States contest the results of analyses;

(f) collaborating with laboratories responsible for analysing feed and food in third countries.

Activity Programme 2015

Four groups of activities:

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

Activity Programme 2015

A - GENERAL TASKS.

A1. Management of administrative duties

A2. EURL-FV web page.

http://www.eurl-pesticides.eu/

Fruits and Vegetables


European Commission
EURL-FV
Search:
EU Reference Laboratories fo
You are here: Home : Pesticides in Fruits and Vegetables
EURL Portal
EURL for Fruits and Vegetables
EURL for Cereals and Feeding Stuff
EURL for Food of Animal Origin
EURL for Single Residue Methods
Topics
EURL-FV Network
April-2014 Updated
Proficiency Tests
EU-RT-FV16
EUPT-FV-T02
EUPT-FV-16
EUPT-FV-SM06
EUPT-FV-15
EUPT-FV-SM05
EUPT-FV-T01
EUPT-Panel Meeting
EUPT-FV Archive
Workshops
2014 FV-Workshop
Workshop Overview
EURL Webinars
Latest News
19-06-2014 | EURL-FV
European Union Ring Test Certified Standard Solutions FV16
EU-RT-FV16
10-06-2014 | EURL-FV
European Union Proficiency Test for Pesticide Residues in tea EUPT-FV-T02
Application form available!!!
23-05-2014 | EURL-FV
EURL/NRLs-FV Workshop 2014 for Pesticide Residues in fruits and vegetables
Almeria, Spain, on 11th and 12th of September 2014
02-05-2014 | EURL-FV
EU Proficiency Test for Pesticide Residues in Fruit and Vegetables 16 (EUPT-FV-16)
European Proficiency Test FV 16 PRELIMINARY REPORT AVAILABLE!!
23-04-2014 | EURL-FV
EUPT-FV16 Preliminary Results
WEBINAR EUPT-FV16 Preliminary Results, PDF Available!!!

Activity Programme 2015

Workshops
- 2014 FV-Workshop
- Workshop Overview
- EURL Webinars
- Trainings

Services
- Standard Solutions

AQC Panel
- NEW EU Procedures
- EU Procedures Help
- AQC Documents
- AG-Workshop
- Conversion Factors

Library
- LIST OF METHODS
- Last Publications
- CODEX Contributions
- Conference Contributions
- News Archive

About us
- EURL-FV Accreditation
- Activity Programme
- Contact
- Instrumentation
- Travel Information
- Accommodation

Activity Programme 2015

A - GENERAL TASKS.

A1. Management of administrative duties

A2. EURL-FV web page.

A3. Development of bilateral cooperation with other organisations:

- Special collaboration with EFSA by agreement with DG SANCO through Ms. Paula Medina Pastor, second national expert in EFSA and former member of the staff at EURL-FV.

New activities:

-Cooperation with the IRMM-JRC (Institute for Reference Materials and Measurements-Joint Research Centre) in a study of the viability of preparing certified reference material.

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

Activity Programme 2015

A - GENERAL TASKS.

A1. Management of administrative duties

A2. EURL-FV web page.

A3. Development of bilateral cooperation with other organisations:

A4. Collaboration with the other pesticide residue EURLs.

Activity Programme 2015

B - DEVELOPMENT AND VALIDATION OF ANALYTICAL METHODS

B1. Development of validated procedures (including the use of new instrumentation)

B1.1 Update of the GC-Q-TOF-MS database of exact masses of pesticide fragments in EI mode and development of a GC-Q-TOF-MS database in NCI mode. Validation of the corresponding screening methods.

B1.1 Update of the GC-Q-TOF-MS database of exact masses of pesticide fragments in EI mode and development of a GC-Q-TOF-MS database in NCI mode. Validation of the corresponding screening methods.

### Formula	Retention Time	Mass	Compound name
# Formula	RT	Mass	Cpd
C17H16Br2O3	28,12	425,9466	Bromopropylate
C13H9Br2O	28,12	338,9020	Bromopropylate F1
C7H6BrO	28,12	184,9602	Bromopropylate F2
C6H4Br	28,12	154,9496	Bromopropylate F3
C13H12BrCl2N3O	27,92	374,9541	Bromuconazole
C10H8BrCl2O	27,92	292,9136	Bromuconazole F1
C13H12Cl2N3O	27,92	296,0357	Bromuconazole F2
C10H9Cl2O	27,92	215,0030	Bromuconazole F3
C7H3Cl2O	27,92	172,9561	Bromuconazole F4
C8H7Cl2	27,92	172,9925	Bromuconazole F5
C13H24N4O3S	24,01	316,1569	Bupirimate
C11H18N3O3S	24,01	272,1069	Bupirimate F1
C11H18N3O	24,01	208,1450	Bupirimate F2
C5H4N2O	24,01	108,0324	Bupirimate F3
C16H23N3OS	23,85	305,1562	Buprofezin
C9H9N2S	23,85	177,0486	Buprofezin F1
C7H5NO	23,85	119,0371	Buprofezin F2
C7H8N	23,85	106,0657	Buprofezin F3
C7H11N2OS	23,85	171,0592	Buprofezin F4
C8H16N2S	23,85	172,1034	Buprofezin F5
Continue	….	….	….

B1.1 Update of the GC-Q-TOF-MS database of exact masses of pesticide fragments in EI mode and development of a GC-Q-TOF-MS database in NCI mode. Validation of the corresponding screening methods.

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C			
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C8H16N2S	23,85	172,1034	Buprofezin F5
Continue	….	….	….

100 PESTICIDES

2 FRAGMENTS AT LEAST FOR EACH PESTICIDE

RETENTION TIMES OF EACH PESTICIDE

B1.1 Update of the GC-Q-TOF-MS database of exact masses of pesticide fragments in EI mode and development of a GC-Q-TOF-MS database in NCI mode. Validation of the corresponding screening methods.

#	Compound
1	Trifluralin
2	Dicloran
3	Lindane (HCH-Gamma)
4	Fonofos
5	Propyzamide
6	Chlorothalonil
7	Tefluthrin
8	Parathion-Methyl
9	Chlorpyriphos-Methyl
10	Vinclozolin
11	Tolclofos-Methyl
12	Heptachlor
13	Malaoxon
14	Fenitrothion
15	Dichlofluanid
16	Malathion
17	Chlorpyriphos
18	Parathion
19	Tetraconazole
20	Pendimethalin
21	Pyrifenox I
22	Tolylfluanid

#	Compound
23	Chlozolinate
24	Chlorfenvinphos
25	Fipronil
26	Chinomethionat
27	Methidathion
28	Pyrifenox II
29	Endosulfan alpha
30	Tetrachlorvinphos
31	Hexaconazole
32	Prothiofos
33	Dieldrin
34	Myclobutanil
35	Bupirimate
36	Chlorfenapyr
37	Endosulfan beta
38	Ethion
39	Ofurace
40	Carbophenothion
41	Quinoxyfen
42	Endosulfan Sulfate
43	Fenhexamid

#	Compound
44	Propiconazole
45	Trifloxystrobin
46	Nuarimol
47	Iprodione
48	Phosmet
49	Bifenthrin
50	Fenpropathrin
51	Bifenox
52	Tetradifon
53	Phosalone
54	Lambda-Cyhalothrin
55	Fenarimol
56	Pyrazophos
57	Acrinathrin
58	Pyridaben
59	Fluquinconazole
60	Cypermethrin
61	Flucythrinate I
62	Flucythrinate II
63	Fluvalinate-tau
64	Azoxystrobin

B1.1 Update of the GC-Q-TOF-MS database of exact masses of pesticide fragments in EI mode and development of a GC-Q-TOF-MS database in NCI mode. Validation of the corresponding screening methods.

#	Compound	Rt (min)	Exact Mass	Molecular Formula
1	**Trifluralin*, ****	13.888	335.1093	C13H16F3N3O4
2	**Dicloran***	14.706	205.9650	C6H4Cl2N2O2
	Dicloran cluster		207.9622	C6H4Cl2N2O2
3	**Lindane (HCH-Gamma)***	15.523	252.8912	C6H6Cl5
	Lindane (HCH-Gamma) cluster		254.8883	C6H6Cl5
4	**Fonofos***	15.894	168.9911	C4H10OPS2
	Fonofos F1		109.0112	C6H5S
5	**Propyzamide***	15.934	255.0218	C12H11Cl2NO
	Propyzamide F1		187.9670	C7H4Cl2NO
6	**Chlorothalonil***	16.645	263.8816	C8Cl4N2
	Chlorothalonil cluster		265.8787	C8Cl4N2
	Chlorothalonil F1		229.9205	C8Cl3N2
7	**Tefluthrin***	16.831	241.0243	C9H9O2ClF3
	Tefluthrin F1		205.0476	C9H8F3O2
8	**Parathion-Methyl***	18.039	153.9963	C6H4NO2S
	Parathion-Methyl F1		263.0017	C8H10NO5PS
9	**Chlorpyriphos-Methyl***	18.053	211.8895	C5HCl3NS
	Chlorpyriphos-Methyl F1		140.9775	C2H6O3PS

*** Quantifier ion**

**** Compounds fully identified with MSMS experiment**

Activity Programme 2015

B - DEVELOPMENT AND VALIDATION OF ANALYTICAL METHODS

B1. Development of validated procedures (including the use of new instrumentation)

B1.1 Update of the GC-Q-TOF-MS database of exact masses of pesticide fragments in EI mode and development of a GC-Q-TOF-MS database in NCI mode. Validation of the corresponding screening methods.

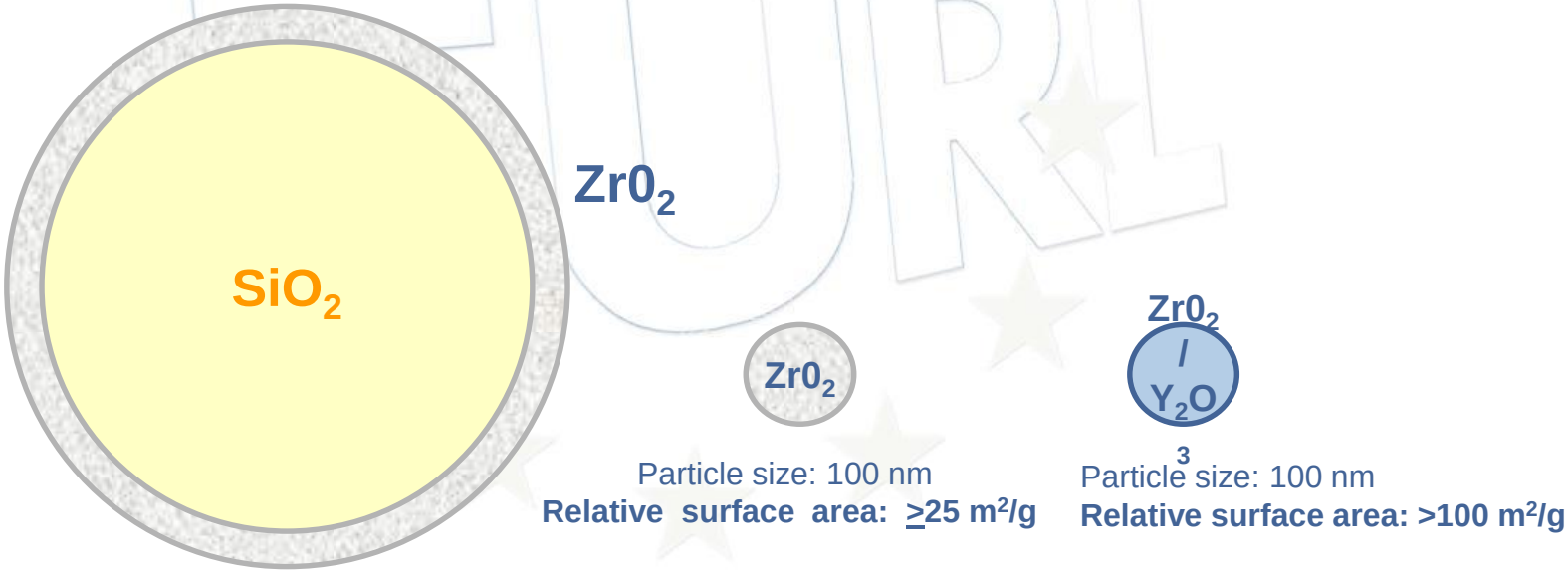
B1.2 Validation of a LC-QTOF HRMS method (request of CEN standardised method).

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Activity Programme 2015

B1. Development of validated procedures (including the use of new instrumentation)

B1.3. Study of the efficiency of extensive clean-ups using high speed centrifugation or specific sorbents based on Zr or others.



Particle size: 22 µm= 22000 nm
Relative surface area: 310 m^2/g

Particle size: 100 nm
Relative surface area: ≥25 m^2/g

Particle size: 100 nm
Relative surface area: >100 m^2/g

Activity Programme 2015

B1. Development of validated procedures (including the use of new instrumentation)

B1.3. Study of the efficiency of extensive clean-ups using high speed centrifugation or specific sorbents based on Zr or others.

B1.4. Development of a "components map" for all the commodity groups in Document SANCO 12571/2013.

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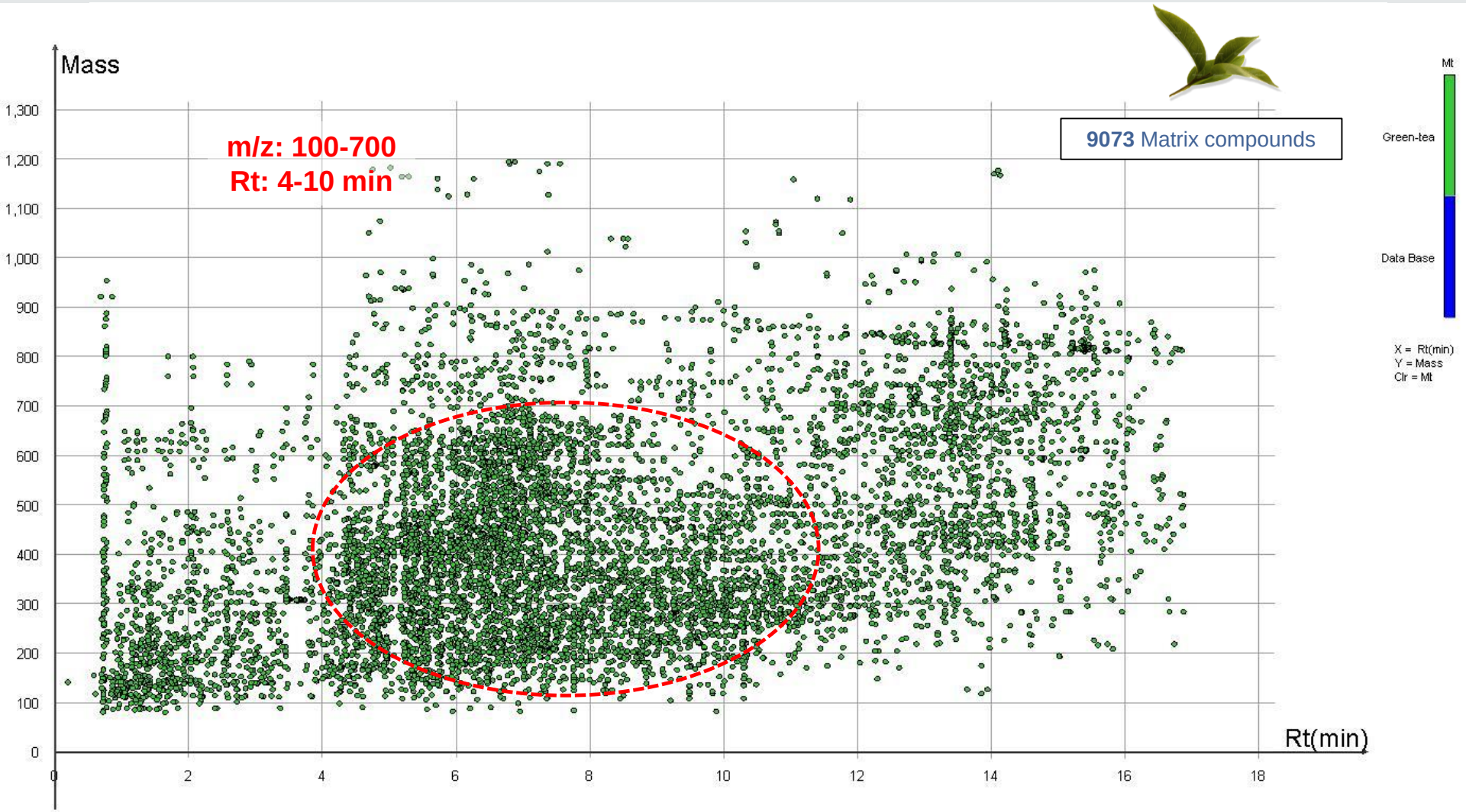
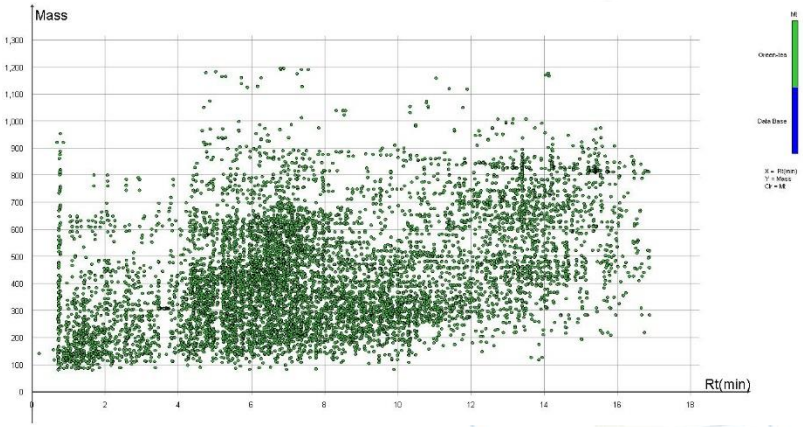


Miner 3D Enterprise

B1.4. Development of a "components map" for all the commodity groups in Document SANCO 12571/2013.



Annex A *Commodity groups and representative commodities*[5]

Vegetable and fruits, cereals and food of animal origin

Commodity groups	*Typical commodity categories*	*Typical representative commodities*
1. High water content	Pome fruit	Apples, pears
	Stone fruit	Apricots, cherries, peaches,
	Other fruit	Bananas
	Alliums	Onions, leeks
	Fruiting vegetables/cucurbits	Tomatoes, peppers, cucumber, melon
	Brassica vegetables	Cauliflower, Brussels-sprouts, cabbage, broccoli
	Leafy vegetables and fresh herbs	Lettuce, spinach, basil
	Stem and stalk vegetables	Celery, asparagus
	Forage/fodder crops	Fresh alfalfa, fodder vetch, fresh sugar beets
	Fresh legume vegetables	Fresh peas with pods, peas, mange tout, broad beans, runner beans, French beans
	Leaves of root and tuber vegetables	Sugar beet and fodder beet tops
	Fresh Fungi	Champignons, canterelles
	Root and tuber vegetables or feed	Sugar beet and fodder beet roots, carrots, potatoes, sweet potatoes
2. High acid content and high water content[6]	Citrus fruit	Lemons, mandarins, tangerines, oranges
	Small fruit and berries	Strawberry, blueberry, raspberry, black currant, red currant, white currant, grapes
	Other	Kiwifruit, pineapple, rhubarb
3. High sugar and low water content[7]	Honey, dried fruit	Honey, raisins, dried apricots, dried plums, fruit jams
4a. High oil content and very low water content	Tree nuts	Walnuts, hazelnuts, chestnuts
	Oil seeds	Oilseed rape, sunflower, cotton-seed, soybeans, peanuts, sesame etc.
	Pastes of tree nuts and oil seeds	Peanut butter, tahina, hazelnut paste
	Oils from tree nuts, oil seeds and oily fruits	Olive oil, rapeseed oil, sunflower oil, pumpkin seed oil
4b. High oil content and intermediate water content	Oily fruits and products	Olives, avocados and pastes thereof
5. High starch and/or protein content and low water and fat content	Dry legume vegetables/pulses	Field bean, dried broad bean, dried haricot bean (yellow, white/navy, brown, speckled), lentils
	Cereal grain and products thereof	Wheat, rye, barley and oat grain; maize, rice Wholemeal bread, white bread, crackers, breakfast cereals, pasta
6. "Difficult or unique commodities"		Hops Cocoa beans and products thereof, coffee, tea Spices

Activity Programme 2015

B1. Development of validated procedures (including the use of new instrumentation)

B1.3. Study of the efficiency of extensive clean-ups using high speed centrifugation or specific sorbents based on Zr or others.

B1.4. Development of a "components map" for all the commodity groups in Document SANCO 12571/2013.

B1.5 Evaluation of interferences between matrix-analyte for the correct identification of the pesticides by GC-QQQ-MS/MS and LC-QQQ-MS/MS

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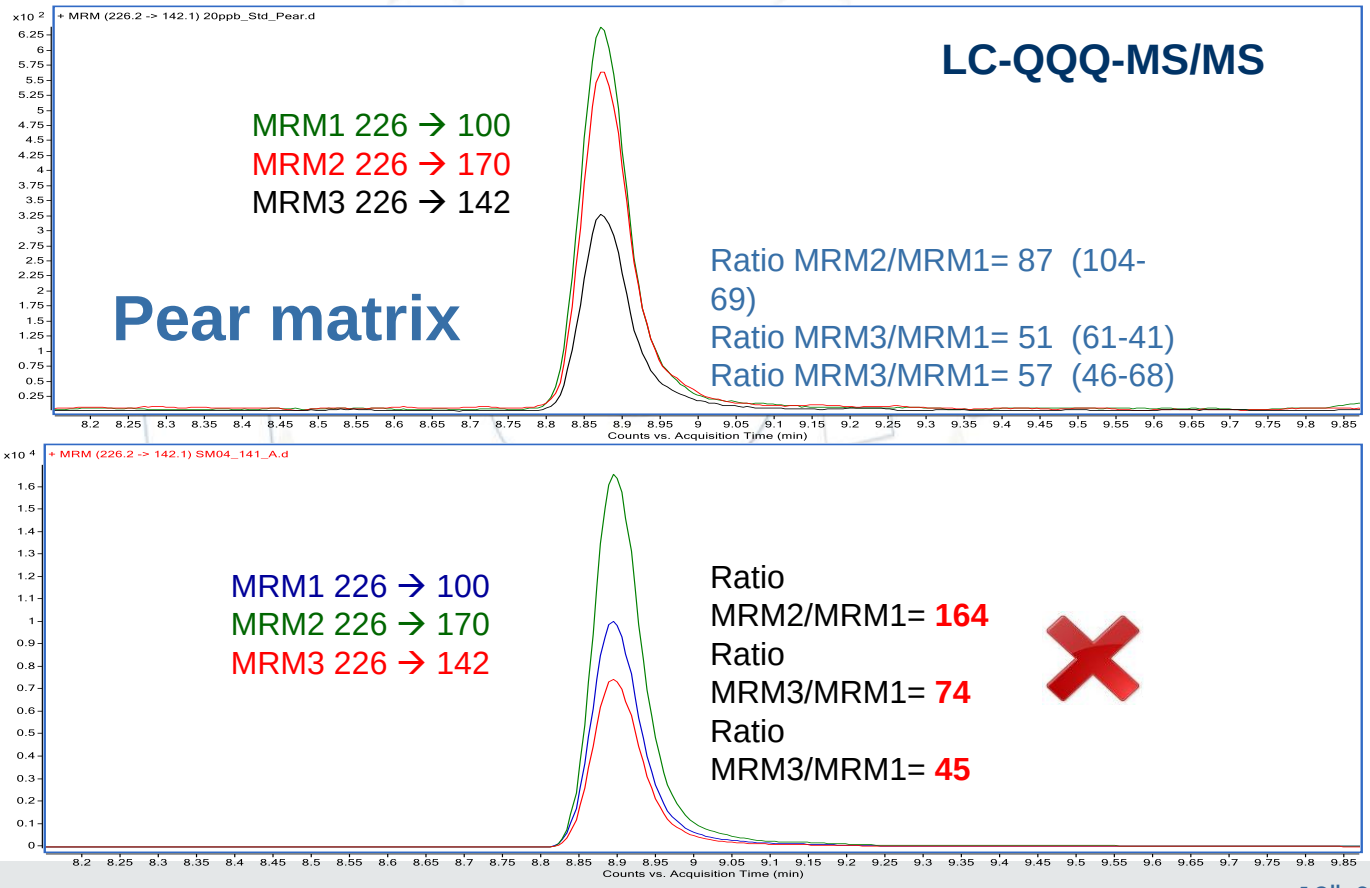
EUPT-FV-SM04
European Proficiency Test FV-SM04

Secbumeton



Activity Programme 2015

B1. Development of validated procedures (including the use of new instrumentation)

B1.3. Study of the efficiency of extensive clean-ups using high speed centrifugation or specific sorbents based on Zr or others.

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B1.5 Evaluation of interferences between matrix-analyte for the correct identification of the pesticides by GC-QQQ-MS/MS and LC-QQQ-MS/MS

B1.6 Development of an analytical method by LC-microflow coupled to HRMS (QTOF).

B1.6 Development of an analytical method by LC-microflow coupled to HRMS (QTOF).

Most used

	I.D. Column (mm)	Flow (µL/min)	Nebulizer	I.D. column (mm)	Flow (µL/min)	Sensitivity Theoretically Gain
Standard LC	8.0 – 1.6	200 - 5000	Standard	4.6	400	1
				2.1	200	5
micro LC	0.3 – 1.0	5 - 200	Micro	1	40	20
				0.8	20	30
				0.5	35	≈ 30

Standard-LC vs micro-LC

Activity Programme 2015

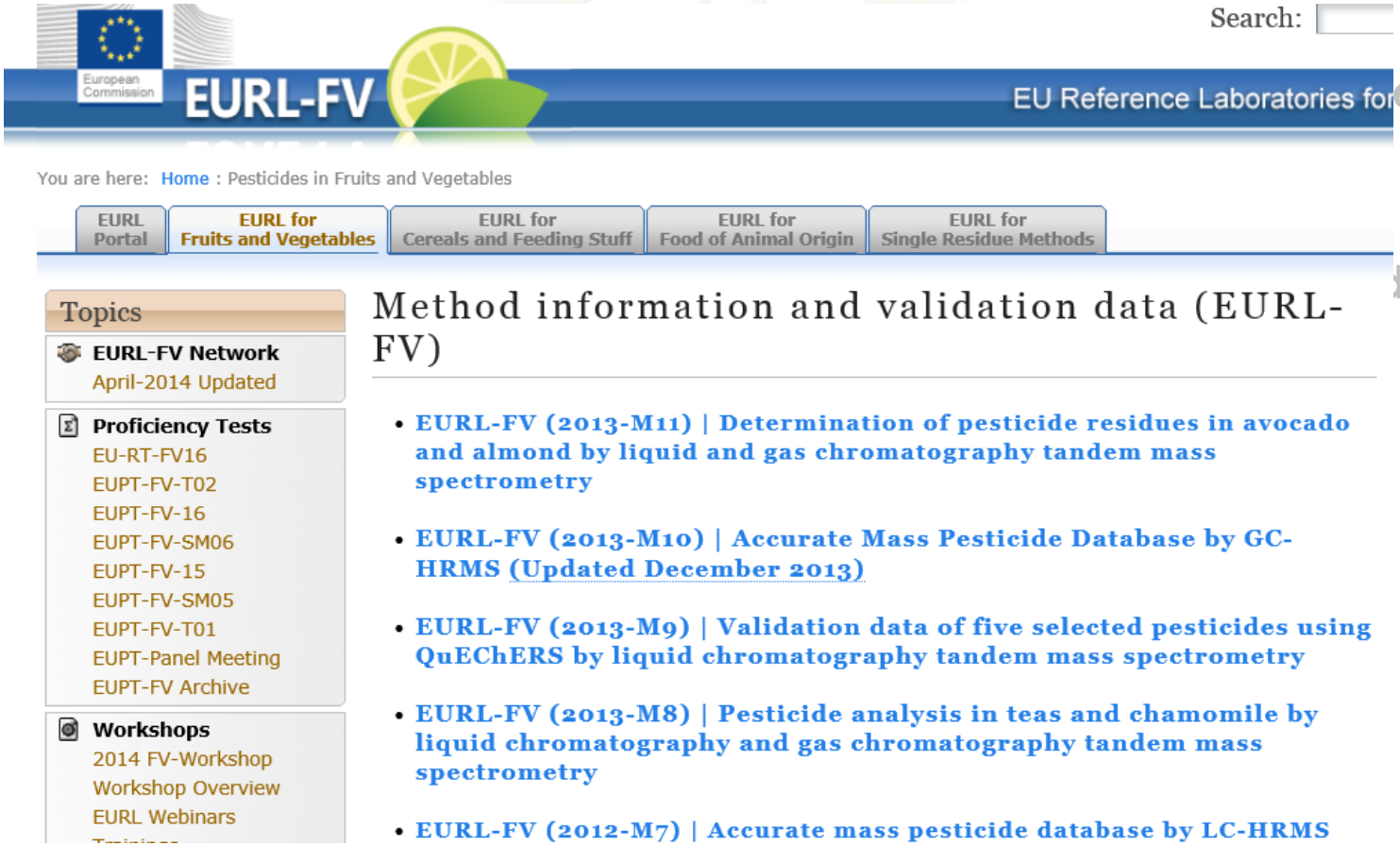
B - DEVELOPMENT AND VALIDATION OF ANALYTICAL METHODS

B1. Development of validated procedures (including the use of new instrumentation)

B2. Follow-up of the implementation of the developed methods by the Official Laboratories.

Activity Programme 2015

B - DEVELOPMENT AND VALIDATION OF ANALYTICAL METHODS



Activity Programme 2015

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

C1. Update of EU Guidelines on Quality Control Procedures.


ANALYTICAL QUALITY CONTROL
AND METHOD VALIDATION PROCEDURES
FOR
PESTICIDE RESIDUES ANALYSIS
IN FOOD AND FEED

Document N° SANCO/12571/2013
Supersedes Document No. SANCO/12495/2011
Implemented by 01/01/2014

SANCO/xxxx/2015

Activity Programme 2015

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

C1. Update of EU Guidelines on Quality Control Procedures.

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

Activity Programme 2015

C2.1 Development and conduction of EUPT-FV17.

C2.2 EU Intercomparative Study on Mass Spectrometry Screening Methods 07 (EUPT-FV-SM07).

C2.3 EU Intercomparative Study on incurred fresh herbs 01 (EUPT-FV-FH01).

C2.4 Ring Test of certified standard solution of EUPT-FV17 (EU-RT-FV17).

Activity Programme 2015

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

C1. Update of EU Guidelines on Quality Control Procedures.

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

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

Activity Programme 2015

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

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

Stuttgart Autumn 2015

Activity Programme 2015

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

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

D2. Advisory Group Expert Meeting

Activity Programme 2015

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

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

D2. Advisory Group Expert Meeting

D3. Technical assistance to DG SANCO.

D3.1. Support to COM and EFSA

D3.2. Assistance to COM in drawing up the coordinated multiannual control programme of the Union.

Activity Programme 2015

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

D1. Joint EURL-SRM/FV/CF/A

D2. Advisory Group Expert M

D3. Technical assistance to

D3.1. Support to CO

D3.2. Assistance t
multiannual control

D4. Training for the NRLs.

Activity Programme 2015

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

D5. Assistance to Third Countries.

EUPTs-FV **Workshops**

Activity Programme 2015

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

D5. Assistance to Third Countries.

D6. Webinars

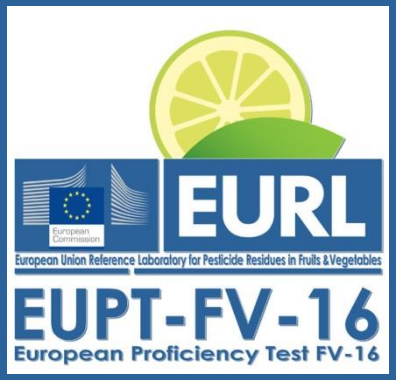
Activity Programme 2015

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

D5. Assistance to Third Countries.

D6. Webinars

D7. Arbitration in the event of litigation



Thank You for Your Attention

European Commission

EURL EUROPEAN UNION REFERENCE LABORATORY