



# Pesticides residues testing in organic production

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**JAN VON KIETZELL, DG SANTE, FVO**

# Pesticides residues testing in organic production

- 1. Background;
- 2. Questionnaire sent to Member States;
- 3. Audits in 5 Member States in 2015 and 2016;



# 1. Background on FVO project

- Pesticide residue testing is only **one** aspect of controls in Organic Production;
- Legal requirement to sample 5 % of organic operators since 2014;
- FVO project to help Member States implementing effective controls for pesticide residue testing in organic production;
- FVO project in co-operation with EURL Almería;

# Background – legislation

- NRLs and EURLs are established under Regulation (EC) No 882/2004;
- Control of Organic Production also falls under Regulation (EC) No 882/2004;



# Background – Pesticide residue results from Food Safety Controls EFSA report for 2013

- **Organic samples :**
  - **Fruits:** < MRL: 15.1 % > MRL: 0.5 %
  - **Vegetables:** < MRL: 15.1 % > MRL: 1.0 %
  - **Baby food:** < MRL: 7.5 % > MRL: 1.0 %
- **Conventional samples:**
  - **Fruits:** < MRL: 67.9 % > MRL: 2.3 %
  - **Vegetables:** < MRL: 36.8 % > MRL: 3.5 %
  - **Baby food:** < MRL: 4.8 % > MRL: 0.6 %

## 2. Questionnaire sent to all MSs

- Two parts:
  - **Competent authorities**
  - **Laboratories**
- Sent in December 2014;
- Replies received from 25 Member States;

# Questions Competent authorities

- Germany and Spain sent separate replies for regions;
- 41 replies received;
- Data covering period from 2012-2014

# Sampling includes....

- Food:
  - **Regular control:** **83 %**
  - **In case of suspicion:** **78 %**
- Feed:
  - **Regular control:** **80 %**
  - **In case of suspicion:** **76 %**





# Sampling includes....

- Leaves:
  - **Regular control:** **73 %**
  - **In case of suspicion:** **78 %**
- Soil/water:
  - **Regular control:** **44%**
  - **In case of suspicion:** **73 %**



# Sampling at stage of....

- Production:
  - **Regular control:** **85 %**
  - **In case of suspicion:** **80 %**
- Processing:
  - **Regular control:** **85 %**
  - **In case of suspicion:** **76 %**



# Sampling at stage of....

- Retail:
  - **Regular control:** **61%**
  - **In case of suspicion:** **56%**
- Import:
  - **Regular control:** **71%**
  - **In case of suspicion:** **63%**

# Number of samples per year

- Taken by Competent authority: **2,064**
- Taken by Control Body/Authority: **20,820**
- Number of operators sampled: **16,188**
- Percentage of non-compliant operators: **5.8 %**
- Pesticide detections:
  - **Non-authorized use:** **2.9 %**
  - **Spray drift:** **2.9 %**
  - **Other reasons:** **2.7 %**

# Laboratories....

- Designation of laboratories by CA:
  - **Yes: 39 %**
  - **No: 61 %**
- Scope of analysis defined by:
  - **Competent Authority: 32 %**
  - **Control Body/Authority: 83 %**
  - **Laboratory staff: 24 %**

# Thresholds to decide on compliance

- Yes: 44 %
- No: 56 %
- Thresholds range from 0 to 10 ppm:
  - **0; 0.01 ppm, 0.02 ppm; 0.05 ppm, 0.1 ppm, 1 ppm, "10 ppm"**
  - **Possibly unit "ppm" not understood;**

# Questions Laboratories

- A total of 115 replies;
- Italy: 28 laboratories; Spain: 30 laboratories;
- A few laboratories used by several MSs;
- Results for 2012 – 2014

# Results laboratories

- Average number of pesticides offered in test: 375
- Same methods as for conventional: 88 %
- Single residue methods offered: 60 %
- Lower reporting limits offered: 21 % (0.01 ppm, in cases 0.001 or 0.003 ppm)
- **Part of reference laboratory network: 34 %**
- **Participation in EU Proficiency tests: 57 %**



# Participation of laboratory in NRL activity

- Training: 22 %
- Meetings: 40 %
- Circulation of info: 39 %
- Proficiency tests: 36 %
- None of these: 40 %

## 3. FVO Audits in five Member States

- UK (1/2015), Poland (6/2015), Germany (9/2015), Finland and Spain: 2016;
- Report for UK published:
  - [http://ec.europa.eu/food/fvo/audit\\_reports/](http://ec.europa.eu/food/fvo/audit_reports/)

# Audits – initial results

- National Guidance on procedures for testing organic produce, including sampling;
- Minor weaknesses with sampling, which may affect representativeness of results;
- No explicit decision tree for investigating pesticide detections – different approaches exist;

## Audits – initial results (2)

- On-site investigation for each pesticide detection not workable;
- Laboratories not part of official reference laboratory network EURL/NRL;
- Laboratories visited had sufficient resources and a range of methods in place, but...;

## Audits – initial results (3)

- Official criteria for analysis are not established and communicated;
- Consequently, there are limitations of analytical methods applied regarding...
  - **Range of pesticides in method:** e.g. GC scan only;
  - **Sensitivity of method:** 0.01 mg/kg?
  - **Quality Control Procedures applied:** e.g. validation for one commodity only, one point validation at 0.1 ppm, insufficient confirmation;

# Initial conclusions

- Sampling for pesticide residues implemented in Member States, procedures in process of development;
- **Lack of designation and clear delegation of tasks for laboratories (which scope?, sensitivity?, Quality Control?): reduces effectiveness of controls;**
- **Laboratories not included in network of Reference laboratories: lack of co-ordination affects controls;**

## Initial conclusions (2)

- Different procedures exist in Member States on investigating pesticide detections: clarity is needed;
- "Case-by-case investigation" means intransparent procedures.

## Next steps

- Findings presented at Brussels Regulatory Committee on Organic Production in July 2015;
- Competent authorities asked to designate laboratories and inform NRLs;



# Thank you!

