European Organic Certifiers Council

Sampling and analysis – how do control bodies use the inspection tool?

International Seminar “Zero Tolerance? Residue analysis as inspection tool for the authenticity of organic products“

January 10-11, 2019 Brussels

Introduction EOCC

International non-profit organization, since 2010 51 members (CBs, CAs) in 28 countries

N.B.: In the presentation CBs refer to control bodies and control authorities

The association aims to increase the reliability of control and certification in relation to the European organic regulation.

Introduction EOCC

2 Working Groups (Regulation + Import)

9 Task-Forces

- High Risk Supply Chains (formely Platform Ukraine)
- TRACES
- Residues
- Traceability and Cross-checks
- Risk-Assessment
- Best Practices in Organic Agriculture
- OFIS
- Certification
- OCR

Preamble

2015-2016 Commission audits on pesticide residue controls in organic production => Commission overview report DG (SANTE)2016-8986

BTSF Workshop on “Pesticide Residues in Organic Production” (24-26 October 2018) => participation of EOCC

Summary

- Answer the question
- Sampling procedures
- Laboratory analysis
- Interpretation and follow-up of pesticides residues detection

Preamble

"Zero Tolerance? "

- An analytical negative result is expressed as below the detection limit or quantification limit => it doesn't mean zero

- It depends on laboratories, matrix and active substances (not detected at 10 ppb, 50 ppb or 100 ppb doesn't mean absence)

- In the future, the lowest detection limit (it will be possible to reach) won't answer the question

Preamble

- Sampling is only one of the different inspection methods / tools (Article 14 regulation (EU) 2017/625) => non-authorised products or substances, traceability

- A negative result (not detected) is not the assurance of absence of non-compliance and a positive result is not the assurance of a non-compliance

- Lot of sampling done, few positive results (15%), small amount of non-authorised used of products and substances (5% => risk based sampling). (CBs data)

- Art.25 of OCR (2017/625) + art. 28-29 REG 2018/848 => possibility to activate secondary acts

Use the inspection tool

4 types of samplings mainly based on a risk approach:

- samplings based on risk (products/operators) => assigned annually
- samplings because of doubt during inspection **=> inspector initiative**
- samplings to investigate alerts/residue cases => assigned or inspector initiative
- random sampling (routine surveillance) => assigned or inspector initiative

Use the inspection tool

Reasons of sampling => sampling methodology differs accordingly

- ✓ To underline frauds (intentional non respect of regulation)
- ✓ To underline incorrect practices because of lack of knowledge of the regulation
- ✓ To underline environmental pollution
- ✓ To underline cross contamination
- ✓ To verify possible drift
- ✓ To verify the efficiency of actions taken by clients
- ✓ To survey/evaluate the risky products
- ✓ …

Use the inspection tool

A sampling plan is generated each year after an analysis of risks.

Criteria's to evaluate products risk level :
-> historical knowledge : results of previous year + alerts + crisis
-> nature of product and risk on farming
-> nature and risk on process
-> risky supply chain

which operator: risky ones (several criteria)

which products will be sampled: leaves, mature crops on fields, products after harvest, manufactured products, seeds, etc

when sampling will be done: periods of farming, of harvest, of manufacturing, when products are sold (doc sent “cultivation program”)

Use the inspection tool

Some criteria's to help inspectors in the choice of sampling :

- **Geographical location of field** : I advice to choice systematically fields close to conventional plots of lands (pesticides), close to a waste treatment plant (dioxins, HAPs), close to GMO test plots or GMO production (GMO), close to power plants (radioactivity), close to a motorway (heavy metals), close to water river and irrigation with it (pesticides, radioactivity, ..), direction of wind (pesticides), field beside conventional parcel - drift processing (pesticides), ...

Use the inspection tool

- **History** of the client's deviations

- **Suspicion of fraud during examination of documents** invoice, high yield, the clients sampling plan and results, balance not OK, etc.

- **Suspicion of fraud during the inspection (on-site observations):** storage of banned pesticides, fields too clean, dried grass, dusts in factory, atmospheric treatments against insects, seeds, etc.

Use the inspection tool

- **Dual activity** : organic and conventional
- **Origin of the raw materials / products**: products imported from high-risk countries
- **Visual aspect of product** : colours, sizes, varieties, … to verify if commingling
- **Nature of products** : value-added, scarcity,…

- ***Use the inspection tool***

- **Nature of process** : drying (concentration of residues), extraction (residues on column, concentration), numerous raw materials, numerous steps (risks of cross-contamination), …

- **Control of a technical problem difficult for organic agriculture** : insect infestation, codling moth, etc.

- **Particular events in the region**: treatment by planes or helicopter (pesticides or against mosquitoes), flooding or urban sludge (heavy metals), etc.

- **Alerts** about products, clients, …

Use the inspection tool

Analysis is a CONTROL **TOOL** that inspectors could use to verify practices of clients when they have doubts

Analysis is also a DECISIONNARY **TOOL** that certification officer could use to be sure to certify conform products

Organic standards

- Pesticides (screening per matrix + mono-residues), herbicides
- GMO (screenings per matrix)
- Ionising radiation
- Antibiotics tests
- Isotopic analysis : conformity of N inputs

Organic standards + general regulation

- Additives and forbidden compounds (melamine, polyphosphates, authenticity, sulfites, …)
- Cleaning agents (QAC, …)

General regulation

- Pollinic examen to verify origin and/or honey authenticty
- Heavy metals
- Dioxins/PCB and HAP
- Mycotoxins
- ect

Sampling procedures

- **Existing sampling EU documents (DIR 2002/63/EC, regulation EC 152/2009) are food safety oriented with an obligation of result => not adapted to organic farming (obligation of means)**

  - Food safety: representative sampling, food (final product) and feed matrix only

  - Organic farming: not representative sampling depending on what is search (routine/suspicion ; use/contamination), multi-matrix (leaves, soil, water, ustensils, ...)

Sampling procedures

- **Sampling is representative of what CBs are looking for (routine, use, contamination, drift spread, …)**

- **Sampling at all stages of the production chain (production, preparation and distribution) on all kind of products (fresh, dried, multi-ingredients, prepacked, in bulk, imported, newly produced, old stock, … leaves and fresh plant in early production)**

- **Different sampling practices between Member States, Third Countries, Control Bodies**

Sampling procedures

- **For a same matrix the sampling methodology will be different depending on the non-authorised products or substances**

- **For a same non-authorised products or substances the sampling methodology will be the same even if the matrix is different (food and feed for example).**

Laboratory analysis

- Recognition rules for Official laboratories by Member States are not adapted to organic farming => alone, the ISO 17025 accreditation doesn't guarantee the reliability of the results

- Non harmonized approach in 17025 accreditation by Accreditation bodies of different countries that difficult the task for choosing the lab

- Concerns to work only with official laboratories: few official laboratories in comparison with all available laboratories
  - Currently official laboratories don't cover all non-authorised products or substancess, all matrix (laboratories scope, accredited laboratories scope)

Laboratory analysis

- **CBs choose laboratories depending on:**
  - ISO 17025 accreditation
  - List of non-authorised products or substancess tested, LOQ, …
  - Adherence to good laboratories practices
  - Deadline for submission of results/Time of response
  - Price
  - Hotline service / technical support services
  - Ring test, reliability of results
  - …

Laboratory analysis

- **No official laboratories in Third Countries according to EU Regulation**

- **What credibility and treatment of results when using of non official laboratories (operators, CBs, MS)?**

- **Proficiency tests / laboratory tests aren't done on non-authorised products or substancess traces but generally at the contamination level close to MRL => reliabilty of the results on non-authorised products or substances traces (repeatability ,reproducibility, and accuracy)**

Laboratory analysis

- **Doubt on the interest to have LOD as low as possible (some laboratories are at 1ppb): environmental pollution level will lead to 100% of positive results**

- **New organic regulation EU 2018/848 (article 29): presence or absence => non holistic approach !**

Interpretation and follow-up of pesticides residues detection

- **Analysis results must always be interpreted and requires technical staff to be expertised**
- **Interpretation: put the result in context is a part of the investigation => case by case interpretation**
- **Definition of investigation / official investigation is missing**
- **All investigations don't lead systematically to find the source and cause of a positive result**

Interpretation and follow-up of pesticides residues detection

- **Lack of common, harmonized, shared approach concerning interpretation, investigation, sanction, certification decision**

- **GMO approach interesting: adventitious or technically unavoidable (Reg EC 1829/2003: preamble 27)**

- **Communication: OFIS is regulatory defined as a tool for sharing non-compliances findings. Most of the OFIS notifications are suspicion alerts => guidelines are necessary**

Interpretation and follow-up of pesticides residues detection

- **Level of communication: every positive results are communicated => huge amount of information that represents low interest**

Which is the interest to provide systematically positive results without result of investigation ?

- **Provision of anonymized global data (selection of key data) would be useful for the MS, CBs, accreditation bodies risk assessment approach**

cooperating for reliability

Thank you for your attention