



BTSF workshop on Pesticide residue controls in organic production

Grange, 24 to 26 October 2018

Good practices identified by participants in the plenary discussions

The notes reflect the discussion of participants, and do not represent the official position of Member States or the European Commission

1. Sampling

- Austria has a working group established to discuss sampling plans and procedures for sampling;
- EU guidelines could help to harmonise sampling approach; it was suggested to combine the existing EU guidelines.
- Poland has issued several official procedures on sample taking for pesticide residues at producer level, including the competence of inspectors responsible for sampling;
- Greece has an official manual on controls on the use of plant protection products, which includes sampling of leaves and soil, available in English;
- Leaves are a good marker for detecting pesticide residues, and EURL research showed that any pesticide residues can be detected on leaves for a longer time.;
- In Beekeeping, the best sampling material is pollen, also from an analytical point of view: 5 gr should be sufficient.
- Soil can be a good option but low sample numbers are not cost-effective for laboratories (validated methods needed, not all laboratories have them);
- Inspectors must have all necessary information about the operator beforehand;
- Timing of samples: most suitable time to detect the use of unauthorised substances;
- Risk-assessment should identify operators in conversion. Regular sampling: leaves and fruits. In cases of suspicion the matrix could also be soil, water or decided by the inspector on ad-hoc basis (possible spray-drift and inadequate precautionary measures);
- A sufficient number of (sub)-samples should be taken in different places in the field/orchard/vineyard, or different steps in the production process. The sample with the highest probability of pesticide detection should be analysed first. In case of pesticide residue detection, further (sub)-samples from different places in field/orchard or processing can be analysed. This can help with investigating the origin of the pesticides. This is particular relevant for confirming spray-drift, but also contamination during processing. When such samples are taken at the same time, there is no need to go back to the field/processing. This is more cost/effective and the circumstances do not change;
- The precise collection points of samples should be decided depending on the purpose of the inspection (suspicion or routine) and the type of crop;
- Sampling at processing: samples should be taken on final products but also from the raw materials used for that particular batch.
- Mass balance of off-farm inputs can be a good tool to decide on the need of sampling;



- Proper equipment for collection of samples (gloves, not powdered) and delivery of samples to laboratory-preservation of samples is essential to ensure reliability of results. Portable coolers for samples brought immediately to laboratory, within 24 hours.

2. Laboratory analysis

- A number of MSs have official procedures (specific for organic) in place, defining range of substances and scope of analysis;
- In Poland, a Working group on laboratory analysis includes also laboratories staff. A list of substances which must be tested for was created, based on information gathered from OFIS notifications and other sources of information. Two lists: one for substances which are compulsory for all labs, for the second list there is a transitional period (it is still to be developed). LOQs are also defined for each substance;
- EU Laboratories should ensure the same performance to detect low-level of PPPs. EU labs' LOQ should be at least 10 ppb (0.01 mg/kg).
- The annual EU list for pesticide residue control in food safety under Regulation 397/2005 should be a basis for sampling in organic production, as this list is regularly discussed by EURLs, Member States and EFSA. Nevertheless, a specific list for organic production should be established, taking into account specific countries' characteristics/profile (including third countries).
- Laboratories used for organic should participate in any proficiency tests (PTs). A new EUPT specific for organic should be implemented; however there are no PTs available for crop leaves. Currently, most laboratories have not validated their methods for crop leaves, and crop leaves are not normally part of the scope of accreditation to ISO 17025;
- Some Member States have established separate NRLs for pesticide residues in organic production. In this case, communication with the other NRLs for pesticide residues is important;
- There is a need for exchange of information between official laboratories, NRLs and EU Reference Laboratories.
- The reporting of results below the LOQ is not allowed by accreditation bodies in most EU Member States. The LOD (Limit of Determination) is irrelevant for food safety control, and the establishing of an LOD is not part of the validation and accreditation process in many laboratories. The currently accredited LOQs are typically 0.01 ppm. Some laboratories offer lower LOQs (e.g. 0.005 ppm), but this cannot currently be achieved by laboratories across the EU.
- Contracts between CBs and laboratories should specify all conditions of the agreement, including some elements as regards interpretation of results. The last word should be always be by the CB, who has the legal responsibility for decision-taking;
- Article 12 of Regulation 882/2004 requires CAs to verify all the conditions that laboratories must meet before designation, and subsequently during supervision.
- The official supervision of laboratories can be delegated to the accreditation body. For this purpose Poland has developed a specific document with additional requirements for official laboratories in organic farming, which is followed by the Polish Accreditation Body. The



requirement to designate laboratories for analysis in organic production is strengthened in Regulation 2017/625.



3. Evaluation of laboratory results and investigations

- To confirm any positive results by a second opinion, different procedures apply in different Member States: this can be the analysis of a second portion of the same sample, the sending of a counter-sample to a different laboratory, or the re-analysis in the presence of the operator.
- Investigations should consider all information available to conclude on whether there was use of the substance or whether precautionary measures taken by operators were adequate.
- One participant stated that the pesticide residue analysis alone cannot prove an unauthorised use, in particular in the case of final products taken at market level. The decision must be made based on all information collected on-the-spot. For example, operators are requested to prove that contamination can be due to spray-drift from neighbours. Information on PPPs use can be collected from neighbours, but many authorities for organic production are not empowered to carry out such checks.;
- Evaluation of the analytical results should be considered as part of the investigation;
- Individual processing factors for specified pesticides and processed products have been published, and are based on scientific studies. They can give an indication whether the PPP was concentrated or metabolised during the processing steps, and can indicate an estimated level of residues on the original crop. The use of generic processing factors to qualify pesticide residue detections would need justification by scientific studies.
- Any use of processing factors should not replace the obligation to consider/investigate sources of contamination during the processing (final product composed of raw materials from different origin).
- The EURL reminded that analytical uncertainty can be used to interpret the quantity (level) of any detected pesticide residues, and to compare it with the MRL, a quantitative level. However, in organic production the presence (e.g. Article 29 of Regulation 2018/848), and not the quantity of the residues, requires investigation.