



International Federation of Organic Agriculture Movements –
EU Regional Group

POSITION PAPER

“The Dealing with Pesticide Residues in Organic Products”

**Approved by the IFOAM EU Group
on 18th of February, 2005**

Executive Summary

Both the EU Regulation and the IFOAM Norms are based on a certification of process, not on special qualities for the products that are a result of this process. The pesticides allowed in conventional production can be present in the surrounding environment and may therefore be mirrored in organic produce, even though there has been neither an infringement nor an irregularity in respect to the regulation.

The absence or presence of chemical pesticide residues does not necessarily indicate if a product has been produced and handled in accordance with the requirements for organic production. However, analysis of organic products is one of the complement tools that can be used to verify compliance.

In all cases the inspection body must ensure that the sampling and analysis have been done in a way that complies with good practice. There is a need for defining criteria for both sampling methods and analysis methods.

Clearly, where a pesticide residue is detected, the inspection body must investigate if the requirements for organic production have been followed or not. To be able to make such an assessment the inspection body will need access to general information on residues in agricultural products. A database with relevant information to residues for the organic inspection bodies should be developed.

- If no irregularity or infringement can be ascertained, there should be no reaction in respect to the certification of the products. However, it may be possible to work out improvement actions that will prevent recurrence.
- If an irregularity is found, the products should be decertified, without regard to the level of the residue. Improvement actions to avoid recurrence should also be defined.
- In the case of a major infringement, the lot or crop should be decertified and the operator should be prohibited from marketing products as organic for a period (according to Article 9 (9) a) and b) of the Reg. 2092/91).

It is of great importance that the same conclusions are made in the same cases, so that there is harmonisation on sanctions both between countries, and through the whole chain of production (farmers, processors, retailers, etc.).

There is a need for a database with basic information on each find of residues, and the decision made by the inspection body. All detected findings should be reported to the database system. If possible the system should incorporate available existing data.

We have to keep in mind that the issue of pesticide residues is only one of the problems facing organic farming. The whole picture has to be kept in mind and all aspects (e.g. undetectable substances, different costs of analysis for different substances, areas that can not be measured by sampling and testing) must be dealt with in a comparable way.

Background

The EU Regulation 2092/91 defines the requirements for production, processing, packaging, transport and storage of products labelled as organic. The result of following these requirements will be a product that normally will contain no substances like chemical pesticides, since these substances are prohibited in the production or the subsequent handling of the products. Under transport, processing, packaging and storage measures must be taken to ensure that non-allowed substances will not affect or contaminate the organic products.

Both the EU Regulation and the IFOAM Norms are based on a certification of process, not on special qualities for the products that are a result of this process. Residue levels of pesticides are a mirror of the world in which any farmer/operator is operating. The pesticides allowed in conventional production can be present in the surrounding environment and may therefore be mirrored in organic produce, even though there has been neither an infringement nor an irregularity in respect to the regulation.

The EU Regulation Annex III art. 9 gives responsibility in case of suspicion, consideration and doubt to both the operators and the inspection bodies. Where an operator has doubt that a product is in compliance with the regulation, s/he shall initiate procedures either to withdraw this product from organic production or to separate and identify it. In case of such doubt, the operator shall immediately inform the inspection body (Annex III, 9). Should any suspicious factors arise during the internal quality inspections of an operator, the first step should be a rapid follow up as part of an intensive, in-house investigation. There is, however, no guidance on how an operator should assess this question in the case of the detection of pesticide residues. If and when an operator informs the inspection body, the inspection body overtakes the responsibility for the further management of that case.

Where pesticide residues are detected in products labelled organic, it is a challenge for the responsible inspection body to decide if the finding is caused by an irregularity in respect to the standards for organic production. If it is caused by an irregularity, the product should be decertified. However, contamination that results from circumstances beyond the control of the operation should not necessarily alter the organic status of the operation. On the international market we have recently seen that where one inspection body can make a decision on decertification of a lot, another can let the product pass as being organic.

Another item related to this is that the decisions made regarding the different kinds of organic operators are not always consistent. The sanctions imposed on a farmer when an infringement is found should be proportional to the sanction imposed on the processor.

Against this background it is very important both to agree guidance for operators who are confronted with the detection of pesticide residues, and to develop among inspection bodies a harmonised approach when pesticide residues are found. It is necessary to develop a system that ensures consistency in the

decisions made especially when having in mind the great economic impact a decertification might have on a producer/operator.

Quality assurance of the finding

The report on the finding of pesticide residues can be a result of findings made by the inspection body, an operator, or other sources like monitoring programmes of national food authorities or other institutions.

In all these cases the operator and/or the inspection body must ensure that the sampling and analysis have been done in a way that complies with good practice. There is a need to define criteria for both sampling methods and analysis methods (e.g. accredited methods).

Residue limits for organic products

As stated above residue levels of pesticides on farm level as such are a mirror of the world in which a farmer is operating. The pesticides allowed for conventional farming are likely to be present in the surrounding environment and may therefore be mirrored in organic produce at very low levels. However, the pattern of trace residues in organic produce is not uniform as it very much depends on the soil, micro-climate and other unique conditions of the location. Thus every single case of such residues being found could easily result in a dispute between experts as to how the particular analytical level has been caused.

There is considerable knowledge of residues of different kinds of contaminants in agricultural produce (e.g. FiBL database on residues, private monitoring programmes). There is knowledge on “normal” values and the degradation of residues over time. This knowledge is however not widely available in the organic sector.

Inspection bodies and operators handling organic products need a clear and quick decision when confronted with the positive detection of non-allowed residues. In many situations there may be considerable economic interests. The wish to establish limits of permitted content of different substances in organic products is easy to understand. For those directly involved in this process it will be perceived as “fair play” – either a product is over the level and must be decertified, or the product is under the level and can be marketed as organic.

If limits for residues (different ones for different products and different substances) would be established this would give a satisfactory situation for the inspection bodies and an easy to deal with situation for those who purchase organic products. However, the purchaser will demand to have a guarantee that the products delivered conform to the standards set for residue limits, and we will quickly get a system where the supplier of the organic products will have to give guarantees on pesticide residue limits. This will end in the fact that each lot placed on the indirect market will have to be tested to prove the level of pesticides. It will mean an increase of cost, and therefore price, which will hamper the development of the organic sector. As a matter of fact this situation is

already established for private markets in Germany and Belgium. A special concern in this development is the situation for third countries, and their ability to respond to still more requirements.

Even if a residue is found above the limit, the products may have been produced in accordance with the standards. And the other way round, a product below the limit would not necessarily conform to all standards.

Therefore it seems not appropriate to define special residue limits that can determine if the requirements for organic production have been followed or not. This will be a clear contradiction to the principle of the organic inspection system which is a 'system' approach focused on the process of production rather than regulating the outcome.

It has been suggested that an action limit and/or warning-zone could be established to indicate a level of contamination where the inspection body needs to make further investigations. This might be reasonable provided that pesticide characteristics and causes and sources for contamination are investigated. However, from our point of view any limit established to indicate what action should be taken by the inspection body – and not taking into account the circumstances that have caused the contamination – inevitably will result in a system based on residue limits in products, without regard to the cause of the contamination.

However, experiences from contamination cases should inform the internal quality management systems of operators. Sampling on a regular basis provides data on background contamination. Based on such results, operators might be able to develop internal orientation levels as a basis of their future internal assessment.

Consequences of the finding of pesticide residues

Article 9.9 in the Regulation demands the inspection body to:

ensure that, where an irregularity is found regarding the implementation of Articles 5 and 6 or of the provisions referred to in Articles 3 and 4 of Commission Regulation (EC) No 223/2003 of 5 February 2003 on labelling requirements related to the organic production method for feedingstuffs, compound feedingstuffs and feed materials (), or of the measures referred to in Annex III, the indications provided for in Article 2 referring to the organic production method are removed from the entire lot or production run affected by the irregularity concerned.*

The IFOAM Accreditation Criteria state that the standards should place emphasis on detection of contamination sources, improvement of the production system taking into account the procedures developed for HACCP, and the assessment of background contamination levels.

Clearly, where chemical pesticides are found, the inspection body must investigate what has caused the residues, and make an assessment if this is the result of an irregularity or a manifest infringement and, if appropriate, decide on possible improvement actions.

As the IFOAM Accreditation Criteria state, contamination that results from circumstances beyond the control of the operation should not necessarily alter the organic status of the operation.

Even if information is available on residues, this is available from different sources, and is not easily available for inspection bodies. It should be a goal to develop a system for making data available that is of relevance to the inspection bodies and gives them a sound background for decision making. It is important that these data take into account the differences in possible presence of residues as a result of production (farm level) or the handling of products (processing, packaging, storage).

In the investigation process it will in many cases be necessary to exchange information between inspection bodies. The latest changes made in the Regulation (article 9.7) foresee such an information exchange:

However, upon request duly justified by the necessity to guarantee that the products have been produced in accordance with this Regulation, they shall exchange with other inspection authorities or approved inspection bodies relevant information on the results of their inspection. They may also exchange the abovementioned information on their own initiative.

The problematical point in this approach is that the inspection body far too often will meet a situation where the available information is insufficient to make a clear decision. Systemized collection of data on the detection of pesticides and information about the circumstances around each case will, however, be a tool to map which areas need special attention. It could also be a tool to define improvement actions for typical cases. In this context, it is important to be aware that the inspection body must have access to knowledge on the fate of pesticides in the environment and causes for contaminations (EN 45011 4.2. j).

Responsibility of the operators

Should any suspicious factor arise during internal quality inspections, the operator should immediately follow up with an intensive, in-house investigation. In any case of an irregularity, they must take the following steps. The operation and marketing must be stopped until the questions have been resolved (so-called self-inhibition). The operator must take measures to clarify the consideration or suspicion. If sufficient knowledge is available of either confirmed findings or significant, clear indications of non-compliance, the company must immediately inform the inspection body. Together with this notification, the operator transfers any information that could be used to support the suspicions or likewise counter them.

Importance of decision conformity

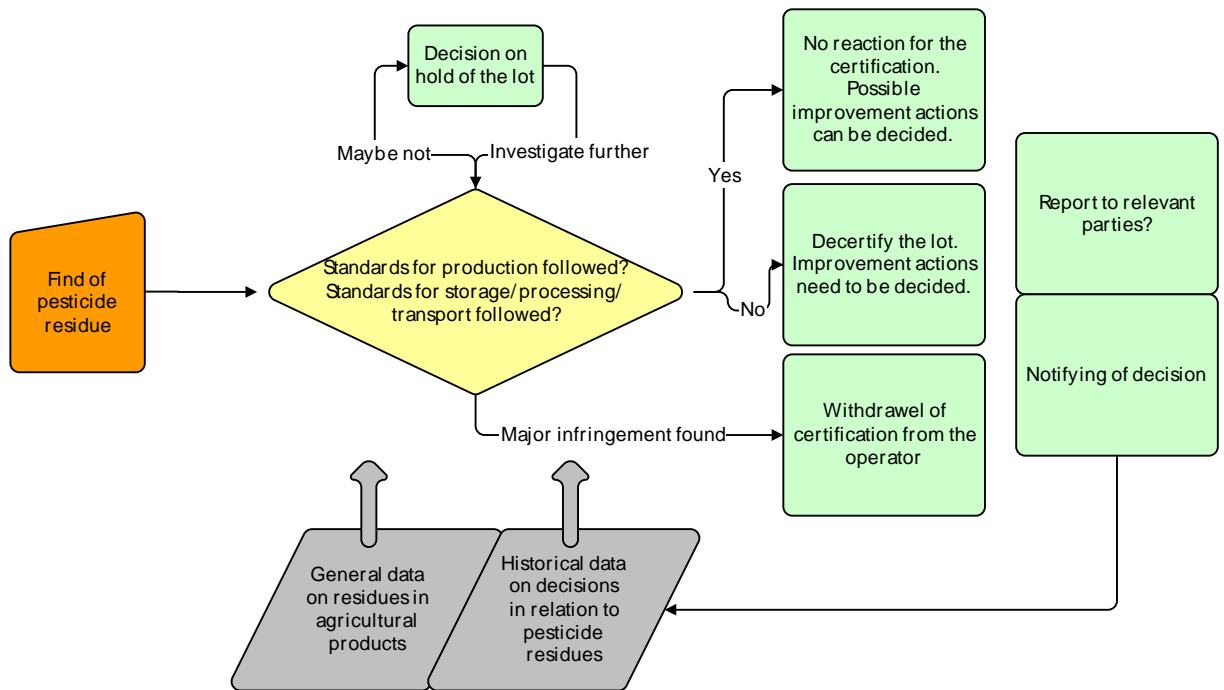
A decision in respect to a specific finding can have a big economic impact. If two inspection bodies make two different decisions on the same finding, this creates a situation with unfair competition and can cause considerable consumer doubts on the credibility of organic agriculture.

To avoid this situation each decision made as a result of the finding of pesticide residues could be registered and made available to all inspection bodies, and in this way it would be possible to establish a system that will ensure the same decision is made in similar cases. In case a different decision is made in a comparable case, the arguments for the decisions should be made available. FIBL and other private organisations have databases which have collected information on detections of pesticide residues. If these data are appropriate this could be valuable as a first input in such a database. If this is a way of development, the question of who should set up and maintain such a system needs to be addressed. Confidentiality will be one of many important issues to discuss.

Importance of decision proportionality

The decisions made in respect to the different kinds of organic operators should be proportional. It is also necessary to state that pesticide residues are only one of the problems facing organic production. It must be pointed out that the use of forbidden fertilizers can not be detected by testing the product. Not all active substances from pesticides are detectable or will be investigated due to the high cost of analysis. We don't see any tendency to test animal products for the use of forbidden feedingstuffs. The whole picture has to be kept in mind and it is important that all aspects are dealt with in a comparable way.

Pesticide residue approach diagram



Source: IFOAM EU Group

Annex:

- I. Relevant quotations from the IFOAM Norms/
- II. EU Council Regulation 2092/91
- III. Letter from IFOAM EU-Group to the commission 2001

Annex I

IFOAM Basic Standards for Organic Production and Processing approved by the IFOAM General Assembly, Victoria, Canada, August 2002

4. 6. Avoiding Contamination

General Principle

All relevant measures are taken to ensure that organic soil and food is protected from contamination.

Standards shall require:

4. 6. 1.

The operator shall employ measures including barriers and buffer zones to avoid potential

contamination and limit contaminants in organic products.

4. 6. 2.

In case of a reasonable suspicion of contamination the certification body shall ensure that an analysis of the relevant products and possible sources of pollution (soil, water, air and inputs) is undertaken to determine the level of contamination and shall make the appropriate responses, such as detection of contamination sources, considering background contamination and other relevant factors.

4. 6. 3.

For synthetic structure coverings, mulches, fleeces, insect netting and silage wrapping, only products based on polyethylene and polypropylene or other polycarbonates are permitted. These shall be removed from the soil after use and shall not be burned on the farmland.

4. 6. 4.

All equipment from conventional farming systems shall be thoroughly cleaned of potentially contaminating materials before being used on organically managed areas.

Recommendations

Operators should take reasonable measures to identify and avoid potential contamination.

In case of risk, or reasonable suspicion of risk, that contamination may occur, the standard-setting

organization should set limits for the maximum application levels of heavy metals and other pollutants.

The standards should place emphasis on detection of contamination sources, improvement of the

production system taking into account the procedures developed for HACCP, and the assessment of background contamination levels. Accumulation of heavy metals and other pollutants should be limited and the appropriate remedial measures implemented where possible.

The standards should establish parameters for the acceptance/rejection of organic products based on analysis.

The standards should establish a procedure on how to evaluate organic products in case of reasonable suspicion of pollution based on due expert consideration and the precautionary principle. Contamination that results from circumstances beyond the control of the operation does not necessarily alter the organic status of the operation.

IFOAM Accreditation Criteria for Bodies Certifying Organic Production and Processing approved by the World Board, August 2002

6. 4. Sampling and Testing *

6. 4. 1.

The certification body shall have documented policies and procedures on residue testing, genetic testing (see 6.7.11.) and other analysis that shall at least include:

- a. indication of the cases in which samples shall be taken;
- b. the requirement that where use of a substance prohibited by the standards is suspected samples shall be taken for analysis; *
- c. the requirement that where standards set limits on residues or contamination in products, inputs or soil, analysis shall be made as appropriate;
- d. instructions to inspectors on sampling requirements and methods;
- e. post-sampling procedures;
- f. indication of responsibility for payment of sampling.

6. 4. 2.

Analyses shall be done by competent laboratories (accredited laboratories, where official accreditation exists).

6. 4. 3.

If laboratory procedures are employed, the certification body shall document the following:

- a. the sampling protocol;
- b. the testing procedures;
- c. acceptable labs used to conduct such analysis.

III. Annex 1: IFOAM Accreditation Criteria Guidance Notes

6. 4. Sampling and Testing

Testing is not the basis of organic certification as it is certification of process not products. However testing is of value and the certification body shall have documented policies and procedures on residue testing, genetic testing and other analyses that meet these requirements.

6. 4. 1. b

The "use of" means the deliberate utilization of a substance. For issues related to unintentional contamination, refer to the IFOAM BS as well as criteria 6.4.1.c., 6.7.5. and 6.7.12.

(6. 7. 5. The certification program shall have additional requirements and inspection regimes when split production occurs to safeguard that the products are not be mixed or contaminated*)

(6. 7. 12. Where the certification body identifies substantial risk of contamination with genetically modified organisms, they shall require measures to minimize it).

Annex II

COUNCIL REGULATION (EEC) No 2092/91

Article 9

Paragraph 7, point (b) ...

However, upon request duly justified by the necessity to guarantee that the products have been produced in

accordance with this Regulation, they shall exchange with other inspection authorities or approved inspection bodies relevant information on the results of their inspection. They may also exchange the abovementioned information on their own initiative.

Paragraph 9

The inspection authority and inspection bodies referred to in paragraph 1 shall:

(a) ensure that, where an irregularity is found regarding the implementation of Articles 5 and 6 or of the provisions referred to in Articles 3 and 4 of Commission Regulation (EC) No 223/2003 of 5 February 2003 on labelling requirements related to the organic production method for feedingstuffs, compound feedingstuffs and feed materials (*), or of the measures referred to in Annex III, the indications provided for in Article 2 referring to the organic production method are removed from the entire lot or production run affected by the irregularity concerned;

(b) where a manifest infringement, or an infringement with prolonged effects is found, prohibit the operator concerned from marketing products with indications referring to the organic production method for a period to be agreed with the competent authority of the Member State.

COUNCIL REGULATION (EEC) No 2092/91

Annex III

5. Inspection visits

The inspection body or authority must make a full physical inspection, at least once a year, of the production/preparation units or other premises. The inspection body or authority may take samples for testing of products not authorised under this Regulation or for checking production techniques not in conformity with this Regulation. Samples may also be taken and analysed for detecting possible contamination by unauthorised products.

However, such analysis must be carried out where the use of unauthorised products is suspected. An inspection report must be drawn up after each visit, countersigned by the responsible person of the unit or his representative.

Moreover, the inspection body or authority shall carry out random inspection visits, announced or not. The visits shall cover in particular those holdings or situations where specific risk or exchange of products from organic production with other products may exist.

.....

9. Products suspected not to satisfy the requirements of the Regulation

Where an operator considers or suspects that a product which he has produced, prepared, imported or been delivered from another operator, is not in compliance with this Regulation, he shall initiate procedures either to withdraw from this product any reference to the organic production method or to separate and identify the product. He only may put it into processing or packaging or on the market after elimination of that doubt, unless it is placed on the market without indication referring to the organic production method. In case of such doubt, the operator shall immediately inform the inspection body or authority. The inspection body or authority may require that the product cannot be placed on the market with indications referring to the organic production method until it is satisfied, by the information received from the operator or from other sources, that the doubt has been eliminated.

Where an inspection body or authority has a substantiated suspicion that an operator intends to place on the market a product not in compliance with this Regulation but bearing a reference to the organic production method, this inspection body or authority can require that the operator may provisionally not market the product with this reference. This decision shall be supplemented by the obligation to withdraw from this product any reference to the organic production method if the inspection body or authority is sure that the product does not fulfil the requirements of this Regulation.

However if the suspicion is not confirmed, the above decision shall be cancelled not later than a time period after having been taken. The inspection body or authority shall define this time period. The operator shall cooperate fully with the inspection body or authority in resolving the suspicion.

Annex III

Letter from IFOAM EU-Group to the commission 2001

Letter from the IFOAM EU-Group to Mr. Scharpe 11th October 2001

Letter to Mr . Scharpe re IFOAM EU group discussions relating to regulation 2092/91 and the amending regulations in particular pesticide residues, metaldehyde and copper. Brussels, November 2001, annex 8a

Pesticide Residues

The IFOAM EU Group has the following comments regarding the presence of residues of plant protection products other than those explicitly allowed for organic agriculture:

- The proposal made in the preliminary draft is in our view not in compliance with the principle ideas of organic farming, where stress is laid on the production method and system. The IFOAM Basic Standards describe a process based approach, rather than focussing on criteria for evaluation of end products;
- Further, we believe that the proposal is not in compliance with the considerations of regulation 2092/91 itself, which also sets out rule for the production method.
- The proposal would burden the organic farmer with the need to establish negative proof, that traces of not-allowed substances were not present in the farmer's products, and if so that they have not been caused by the farmer's own practices. A negative proof is a burden that is very difficult and often impossible to meet, as forensic legal practitioners know. There are almost as many sources of contamination as products, probably most of them unknown so far. Contamination during transport, packing and processing is often a more likely source of contamination than application in the field.

Residue levels of pesticides as such are a mirror of the world in which a farmer is operating. The pesticides allowed for conventional farming are likely to be present in the surrounding environment and may therefore be mirrored in organic produce. However, the pattern of trace residues in organic produce is not uniform as it very much depends on the soil, micro climate and other unique conditions of the location. Thus every single case of such residues being found could easily result in a dispute between experts as to how the particular analytical level has been caused.

Recent research shows that the concept of presence or absence of residues has become obsolete as (i) contaminants from agriculture are distributed to extremely remote habitats such as lakes in the Alps and (ii) that the conclusion whether a contaminant is present or absent depends primarily on analytical detection levels. In consequence, any product may contain marginal but nevertheless detectable traces of contaminants. This proposal would stop organic production wherever the organic farmer could not win such experts' dispute and not positively convince the inspection authority, that the trace was caused by others.

The IFOAM EU Group urgently asks the Commission to withdraw these new proposals regarding residue levels of non-permitted plant protection products. We suggest that it goes against the declaration of Copenhagen and other initiatives of European member states to enhance further development of organic farming, since such burden of proof could in practice prohibit organic agriculture in the more densely populated and cultivated regions of Europe.