



Pesticides residuals control policy

Our company is part of a German group.

In order to face the pesticides problem we have taken a firm and careful position about this matter. Pesticides can be divided into the following groups of substances according to their respective applications:

- agents to control pests (insecticides, rodenticides, acaricides, nematicides, molluscicides)
- Agents to control plant disease (fungicides, bactericides)
- Agents to control rival plants (herbicides)
- Plant growth regulators (PGRs)
- Germination inhibitors
- Peel/rind preservatives
- Fumigants, wood preservatives, etc.

Like mineral fertilisers, pesticides (plant treatment agents, pest control agents, biocides) are a production resource used by farmers on a large scale in order to guarantee a high yield and to improve the crop quality.

There are two different sets of rules regulating the herbal field: the food and pharmaceutical one. Reg. 396/2005 and further modifications is the one referred to the food field.

In the regulation CE 396/2005 are mentioned more than 450 active ingredients for the infusional herbs and similar products, on a total of approx 700. This list is supplemented by a not insignificant number of other pesticides which are or have been used all over the world and can still be found in the form of residues. This means that we must be prepared to deal with more than 1200 pesticides products.

These figures should let us think over about how difficult it is to obtain guarantees of control of pesticides contamination and is more difficult than this if there is no traceability.

These substances can give rise to residual contamination in plant-based products as a result of following application:

- direct use in the field
- herbs protection in storage
- cross-contamination from boarding fields or surrounding environment



The different properties of the various pesticides, the dissimilarity of the matrices under investigation and the diverse statutory requirements to be met by the herbs (aromatic, infusional and for the food supplements) impose stringent demands on the specialist knowledge and experience of the analytical laboratory.

The analysis of pesticides residues in plant-based products is not usually carried out by the manufactures, but is farmed out to external laboratories. This means that it is particularly important

to establish and guarantee a "short" control of the cultivation/production chain . In fact, if you know which are the substances used, it is possible to get good guarantees of the analysed herb.

There is also a problem connected to the batch sampling that could lead to a variability of results.

When checking literature and indications about herbs cultivation, it is rare to find reliable information about the pesticides residues. This one is the main reason because it is necessary to analyse cultivations.

It is the business of the laboratory to propose and carry out the analytical procedures according to the pertinent legislation, to record the results of analysis and to provide assistance with respect to assessing and validating the findings.

Last but not least the method is important to get the "real" result. It must be validated for the plant matrices and carried out by a competent and certified laboratory.

It is also important to have an exact knowledge of the residue situation in order to choose the most appropriate methods for selecting suppliers and valuation of the control lists to adopt, also because multiple residue method can hardly test 1200 active ingredients at the same time.

This picture clearly explains that this problem must be considered in its entirety looking for, time to time, the best instruments to guarantee an efficacious control.

On this point of view Martin Bauer Italy got ready an integrated control management system based on the following considerations:

- group purchasing policy
- quality management control policy
- critical state of the product based on source of supply
- crossed control of the pesticides checked lists

This system is clearly stated in our quality-conformity certificate where is confirmed the concept that the purpose of the test is to comply with Reg. 396/2005. In our site you can get information

about our policy and check the pesticides list chosen for the supplied product.