

EFFA Position Paper

Pesticide Residues in Processed Products and the Application of Processing Factors

1. Background Regulation

Regulation (EC) No 396/2005 on maximum residue levels (MRLs) of pesticides in or on food and feed of plant and animal origin ('The Regulation') sets down the provisions relating to maximum levels of pesticide residues in or on food and feed of plant and animal origin.

The Regulation applies to products of plant and animal origin or parts thereof covered by Annex I.

2. Processing Factors

Article 20 of the Regulation sets down provisions concerning processed products and establishes the principle that certain methods of processing may impact the residue levels found in processed products.¹ In such cases the MRLs for processed products shall be those for the raw agricultural product taking into account the changes in the levels of pesticide residues caused by processing i.e. concentration or dilution, both in cases where specific MRLs are established and where the default MRL of 0.01mg/kg applies.

The ratio of residue in the processed product to that in the corresponding unprocessed product is known as the 'processing factor'.

In February 2022, the Commission published an [Information Note](#) on Article 20 of Regulation (EC) No 396/2005 as regards processing factors, processed and composite food and feed. The aim of the Information Note is not to establish EU harmonised processing factors or to work towards setting of specific maximum residue levels (MRLs) for processed food and feed. The intention is to provide guidance to Member States (including Official Control Laboratories) on how to implement Article 20 provisions of Regulation (EC) 396/2005 in a harmonised way.

This Information Note does not introduce any new legal requirements but confirms the application and basic principles of processing factors. In this respect, it clarifies two points that are of particular importance to the entire value chain: (i) if the raw material complies with the corresponding MRLs (as documented in the corresponding Annexes of Regulation (EC) No 396/2005), then all processed products derived from it are equally compliant; and (ii) processing factors are applicable to all plant protection products (both approved and non-approved as per the EU Pesticides Database).

In addition, the Information Note provides an overview on existing databases and other publications with processing factors clarifying that they are not legally binding but may be useful references to assess the marketability of a processed product.

¹ Limitations apply, however, for Infant Food. While Infant Food is clearly considered "processed food", the concept of "Processing Factors" to evaluate the legal possible level of Agricultural Residues is heavily restricted. Directive 2006/141/EC sets specific rules on the presence of pesticides residues in infant and follow-on formulae. It requires that infant formula and follow-on formula contain no detectable levels of pesticide residues, meaning not more than 0.01 milligrams of pesticide residues per kilogram.

A case-by-case decision is still required. Food and feed business operators (FBO) may justify the compliance of their processed products with evidence of processing data/other relevant information, such as:

1. Data demonstrating that the raw commodity used to manufacture the processed product complied with the applicable MRL (e.g., review of supplier residue data for the agricultural commodity)
2. Method of determining the processing factor for manufacturer specific process
3. Data and relevant documentation to substantiate the processing/concentration factor applied

National Authorities should assess all available information, including specific process information provided by the FBO, and take a decision on enforcement considering all elements of the guidance in the Information Note.