

## **Summary of the EU Directive 1774/2002**

Laying down health rules concerning animal by-products not intended for human consumption.

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Processing of eggshells from hatcheries or egg processing plants is regulated by the EU's so-called by-product regulation (Regulation (EC) [1774/2002](#).) This Regulation sets out the measures to be implemented for collection, transport, storage, handling, processing and use or disposal of animal by-products, not destined for human consumption.

The by-product regulation defines three categories for animal by-products. The categories are classed according to the level of risk, where category 1 concerns high-risk materials and category 3 concerns low-risk materials.

Eggshells from egg processing plants are categorised as a category 3 material:

### **1774/2002/EC: Article 6 – Category 3-material**

Category 3-material comprises animal by-products of the following description, or any material containing such by-products [...]

*"shells, hatchery by-products and cracked egg by-products originating from animals which did not show clinical signs of any disease communicable through that product to humans or animals"*

This material must be collected, transported and identified *"without undue delay"* and then:

- directly disposed of as waste by incineration in an approved incineration plant
- used as raw material in an approved pet food plant approved
- processed in accordance a special method in an approved technical plant or an approved biogas- or composting plant (*see description below*)
- transformed in a biogas plant or composted in the case of catering waste

For each of the used processing methods, critical control points, essential to the extent of the heat treatment, must be determined: particle size, temperature, pressure, and the duration of the process (residence time).

The authorities control and approve the process plants and withdraw the approval if all the requirements in the regulation are not met.

There are several approved methods for the processing of category 3 material. The residence time as well as the temperature depend on the particle size.

According to the by-product regulation, the shells can be transformed according to method 7, which stipulate:

1. Any processing method approved by the competent authority where it has been demonstrated to that authority that the final product has been sampled on a daily basis over a period of one month in compliance with the following microbiological standards:

(a) Samples of material taken directly after heat treatment:  
*Clostridium perfringens* absent in 1 g of the products

(b) Samples of material taken during or upon withdrawal from storage at the processing plant:

*Salmonella*: absence in 25 g:  $n = 5, c = 0, m = 0, M = 0$

*Enterobacteriaceae*:  $n = 5, c = 2, m = 10, M = 300$  in 1 g

where:

**n** = number of samples to be tested;

**m** = threshold value for the number of bacteria; the result is considered satisfactory if the number of bacteria in all samples does not exceed  $m$ ;

**M** = maximum value for the number of bacteria; the result is considered unsatisfactory if the number of bacteria in one or more samples is  $M$  or more; and

**c** = number of samples the bacterial count of which may be between  $m$  and  $M$ , the sample still being considered acceptable if the bacterial count of the other samples is  $m$  or less.

2. Details of the critical control points under which each processing plant satisfactorily complies with the microbiological standards must be recorded and maintained so that the owner, operator or their representative and the competent authority can monitor the operation of the processing plant. The information to be recorded and monitored must include the particle size, critical temperature and, as appropriate, the absolute time, pressure profile, raw material feed-rate and fat recycling rate.
3. This information must be made available to the Commission on request.

*NB: The above description is not sufficient as concerns the EU's by-product regulation 1774/2002 of October 3, 2002. Click [here](#) to download the by-product regulation in pdf.*