

## **A SHORT INTRODUCTION TO THE INDUSTRY GUIDE ON EDIBLE CO-PRODUCTS**

(to be filed at the front of the Industry Guide on Edible Co-products and Animal By-products)

The term '**Edible Co-Products**' (**ECoPs**) is used to describe products that, although technically fit for human consumption (they have come from animals that have passed ante and post-mortem inspection) are not suitable for human consumption in their unprocessed state. Some examples of ECoPs are stomachs, bladders, intestines and fat. 'Edible Co-Products' should not be confused with animal by-products (**ABPs**) - i.e. materials not intended for human consumption, or with 'edible by-products' or 'by-products'; these terms do not exist for the purposes of the food hygiene legislation.

In August 2006 the FSA issued the Industry Guide on Edible Co-Products and Animal By-products to explain the legislative requirements that apply to these important but lesser known products of the meat industry. It also provides guidance on compliance with the food hygiene legislation and, where appropriate, recommendations for best practice. The first four chapters of the Edible Co-products Guide cover their counterpart Sections in Annex III of Regulation (EC) 853/2004. A short chapter on animal by-products is also included in the Edible Co-products Guide to help clarify the difference between the two.

Industry has since felt that it would be useful to have a short reference document setting out the main points covered by the Edible Co-products Guide. This document is intended as a practical summary of the guidance in Chapters 1 to 4 of the Industry Guide on Edible Co-products and Animal By-products. It covers the collection of edible fats and greaves; the production of casings and the processing of stomachs; and the collection of hides and skins for gelatine and collagen. It also highlights the key legal requirements relating to these products. More information about ECoPs is contained in the individual chapters of the Edible Co-products Guide.

This document is provided without prejudice to the legislation (including on TSE/SRM rules and on ABP rules) which should always be consulted in the first instance. Only the courts can decide whether, in particular circumstances, an offence has been committed.

### **1. Hygiene Regulations**

Annex III of EU Food Hygiene Regulation (EC) 853/2004 sets out specific requirements for:

- Rendered Animal Fats and Greaves (Section XII)
- Treated Stomachs, Bladders and Intestines (Section XIII)
- Gelatine (Section XIV) and
- Collagen (Section XV).

These products are made from raw materials that have been harvested from slaughtered animals that have satisfactorily passed ante and post-mortem inspection. They are usually processed further to become suitable for human consumption.

**Food business operators (FBOs) must be able to demonstrate that the ECoP they produce meet all the relevant requirements of the legislation. All ECoP operations must be covered by valid hazard analysis and critical control points (HACCP) plans, whether or not gut room operations are contracted out. Setting down Standard Operating Procedures (SOPs) will help to maintain good standards.**

## 2. Official Inspection and Correlation

ECoPs must have been obtained from animals that have satisfactorily passed ante and post-mortem inspection. If a carcass is condemned then all parts of that animal are also condemned and must be consigned as ABPs. If material has been batched before inspection and cannot be correlated to a single carcass, the whole batch must be treated as animal by-product.

## 3. Hygiene and Separation

3.1 It is prudent to treat fat, offal, hides and skins, etc. from animals that have satisfactorily passed official inspection as fit for human consumption until it is certain that they are no longer required for this purpose. They should also bear an appropriate Identification Mark (Annex II of Regulation (EC) 853/2004, refers), including on the commercial document(s) that accompanies the ECoPs to their next destination. Once they are no longer intended for human consumption or they are handled and/or stored unhygienically, or as ABPs, they become unsuitable for human consumption and should be regarded as ABPs and dealt with as such. Once they have been down graded to ABPs, they cannot go back into the human food chain.

3.2 Except for hides and skins, and some fats, most edible co-products are collected in the gut room. The gut room is a difficult environment and it needs to be able to deal hygienically with the throughput of offal, minimising contamination and spillage, and providing adequate separation of the different categories of raw material. The cleaning protocol in the gut room should ensure that blood, water and spillage from stomach and intestines is cleaned up as soon as possible and that, where necessary, contaminated material is removed and consigned as ABP.

3.3 It is important to keep ECoPs and ABPs separate. ECoPs mixed with, or in contact with, ABPs must be downgraded to ABP material and labelled as 'not intended for human consumption' (or as otherwise required by the Animal By-Products Regulations. See also paragraph 11, below).

## 4. Fat

4.1 Fats come from different parts of the body and have different qualities. The rendering of fat for human consumption should not be confused with the rendering of fat that is classified as ABP.

4.2 Fat must be stored and transported in hygienic conditions at no more than 7°C, unless it is going to be rendered by midday on the day after it is harvested. This means that covered, labelled and Identification Marked containers can be kept at ambient temperature as long as they are rendered within 12 hours after the day on which they were obtained. It may also be transported frozen.

## 5. Stomachs

5.1 Harvesting and initial cleaning – Stomachs, including omasums, are separated from the intestines and other tissues before being opened and the contents removed. This is followed by washing: stomachs must be cleaned (visibly clean with no extraneous particles) or scalded before they leave the slaughterhouse where they were harvested. Emptied stomachs are stored in, for example, barrels or dolavs.

5.2 As offal, stomachs must be kept in hygienic conditions and cooled on a chilling curve that ensures a continuous decrease of the temperature to +3°C. **Note: there is an error in the Industry Guide on Edible Co-Products – the requirement is for both treated and untreated stomachs (offal) to be cooled to +3°C.** They may also be transported frozen. Alternatively they may be transported that day to another establishment no more than two hours away without cooling to +3°C.

5.3 Washing - Stomachs are washed at 65-70°C (sometimes lower) for between 6 and 15 minutes in order to wash the inner surface of the stomach; they are then rinsed and hung on racks to drain. Full racks are moved to the chiller for chilling to +3°C. They may be frozen for delivery to a tripe dressing plant.

5.4 Scalding - involves treatment in special equipment at temperatures of 85-90°C for between 6 and 15 minutes to degrease and refine the outside surface of the stomach.

5.5 Stomachs become 'treated' only when they are salted, heated or dried.

## 6. Intestines

6.1 Harvesting - In the gut room the small intestine is separated from the stomach; it is then separated from the mesentery and the large intestine, either mechanically or by 'pulling', to produce 'runners'.

6.2 Manure Stripping – Intestines/Runners must be emptied and cleaned (i.e. **stripped**) in the slaughterhouse of harvesting. They are passed through a manure stripper (a set of rollers) to squeeze out the intestinal contents without damaging the sub-mucosa. In some cases the equipment can also act as a crusher and begin the process of removing the mucosa. After stripping, the runners are tied into hanks and put into containers of cold water, with or without salt, to await further processing – either in the same premises or in another plant.

**Note:** the term 'cleaning' is used for the process of removing the layers of the intestine to leave the sub-mucosa i.e. the casing, which will then be salted to become a 'treated' product. This operation often takes place in specialist premises. Intestines, runners and unsalted casings are considered to be untreated and unprocessed products.

6.3 As offal, intestines/runners must be kept in hygienic conditions and cooled on a chilling curve that ensures a continuous decrease of the temperature to +3°C. They may also be transported frozen. Alternatively they may be transported that day to another establishment no more than two hours away without cooling to +3°C.

## 7. Gelatine

7.1 Hides and skins for use in the production of gelatine and collagen for human consumption must come from animals that have been slaughtered in a slaughterhouse, and have satisfactorily passed both ante and post-mortem inspection.

7.2 Where hides and skins are destined for food use, the slaughterhouse must have, and operate, a procedure for separating and identifying any hide/skin declared as unfit.

7.3 Where the hides that are going for human consumption (as gelatine or collagen) are salted the salt used must be 'common salt' – sodium chloride; they should not be the

salts used in the tanning process. The use of hides and skins that have undergone any part of the tanning process – regardless of whether the process was complete – is prohibited. The salting of hides is a commercial decision.

7.4 In all cases the abattoir should be able to demonstrate that arrangements for the collection of hides/skins are in place and that their storage is not on a long term basis (whatever that may mean, in practice).

7.5 Raw materials must be transported and stored chilled or frozen unless they are processed within 24 hours after their departure from the premises of collection. However, degreased and dried bones or ossein, salted, dried and limed hides and skins treated with alkali or acid may be transported and stored at ambient temperature.

7.6 A model commercial document to accompany raw material destined for the production of gelatine or collagen intended for human consumption was sent, in January 2007, to Environmental Health Services in England for issue to food business operators. It is reproduced as an Annex to this Guide, for ease.

## **8. Collagen**

As for gelatine, above.

## **9. Documentation and Traceability**

All edible co-products for human consumption must be properly identified, labelled and accompanied by the correct documentation in order to prevent, deliberately or accidentally, the diversion of ABPs back into the human food chain. The Meat Industry Guide (MIG) recommends the information that should be included on accompanying [commercial] documents. Food business operators' must ensure that, at all stages of production, processing and distribution they can identify everyone from whom they have been supplied with raw materials and all to whom they have supplied any food – ie. 'one step back and one step forward'. FBOs must have in place systems and procedures that allow this information to be made available to the competent authority on demand. There is an example of a model movement document for Edible Fat for Rendering in Chapter 1 of the Edible Co-products Guide; this model document may be adapted for use with stomachs, bladders and intestines. There is an example of a model commercial document to accompany raw material destined for the production of gelatine and collagen intended for human consumption attached as an Annex to this document. This document should be used as a model instead of the version in Annex 2, Chapter 3 (Gelatine) and, Annex 2, Chapter 4 (Collagen) of the Industry Guide on Edible Co-products.

## **10. Identification Marking**

ECoPs, intended for human consumption, leaving the slaughterhouse or the processing plant must be clearly marked on the container or packaging with an oval identification mark bearing the information laid down in Section I, Annex II of Regulation (EC) 853/2004.

## **11. Labelling of ABP Containers**

11.1 There must be clear labelling of all containers used for ABP material. The use of colour coded adhesive tape, bearing the appropriate identification legend, wrapped around containers of ABP is recommended.

11.2 The Commission has issued Regulation (EC) No. 1432/2007 (amending Regulation (EC) 1774/2002 - the animal by-products regulation) on the intra-Community transport and labelling of animal by-products<sup>1</sup>, requiring colour-coding of the various categories of ABP for intra-Community trade. It is recommended that this colour-coding is used on a daily basis, regardless of whether they are for trade or not. The European Fat Processors and Renderers Association (EFPRA) has issued guidance on this, including some examples of labels that meet the requirements of the Regulation, which is available from the EFPRA website as Guidance document EF-08-048. A link to the EFPRA website is at:

<http://www.efpra.eu/Content/Default.asp?PageID=43>

A copy of Commission Regulation (EC) No. 1432/2007 is available at:

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:320:0013:0017:EN:PDF>

11.3 If it is known that the ABPs are to remain in the UK then an alternative colour coding system may be used providing it clearly indicates the category of ABP and does not cause confusion with the colour-coding system for intra-Community trade (see also paras 3-5, Chapter 1, Annex II of Regulation (EC) 1774/2004, as amended). More detailed information about the labelling requirements for ABPs is in Chapter 5 of the Industry Guide on Edible Co-Products and Animal By-products.

## **12. Further reading:**

EU Food Hygiene legislation:

<http://www.food.gov.uk/foodindustry/regulation/europeleg/eufoodhygieneleg/>

A full copy of the Report on Edible Co-products (by Jim Scudamore: June 2007):

<http://www.food.gov.uk/multimedia/pdfs/mhpf07070411.pdf>

The Industry Guide on Edible Co Products and Animal By-products:

<http://www.food.gov.uk/foodindustry/guidancenotes/meatregsguid/coproductbyproductguide>

The Guide to Food Hygiene and other Regulations for the UK Meat Industry (the MIG):

<http://www.food.gov.uk/foodindustry/meat/guidehygienemeat>

**Food Standards Agency**  
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<sup>1</sup> OJ L 320, 6.12.2007 p.13-17

**MODEL DOCUMENT TO ACCOMPANY RAW MATERIAL  
DESTINED FOR THE PRODUCTION OF GELATINE OR  
COLLAGEN INTENDED FOR HUMAN CONSUMPTION**

Number of the Commercial Document.....

**I. Identification of the raw material**

Type of products:.....

Date of manufacture:.....

Type of packaging:.....

Number of packages:.....

Guaranteed storage period:.....

Net weight (kg):.....

**II. Origin of the raw material**

Address(es) and registration number(s) of the approved production establishment(s):  
.....

**III. Destination of raw material**

The raw material will be sent:

From:.....  
(place of loading)

To:.....  
(country and place of destination)

By the following means of transport:.....

Name and address of consignor:.....

Name and address of consignee:.....

Date of dispatch:.....

Signature of the owner of the plant or its representative(s):

Name:.....

Date:.....