All industries create by-products that need to be reused, reprocessed or disposed of. Animal production and slaughter is no different, and the nature of the by-product presents particular challenges.

If not managed properly, animal carcasses would present a serious health and environmental risk to livestock and humans. Renderers handle by-products from slaughterhouses and fallen stock – animals that died on farm. Rendering makes the material safe and suitable for reuse in a number of applications.

In addition, renderers deal with catering waste and unsold animal products that also have the potential to become a health risk.
What is rendered?

Within the EU, animal by-products cannot be sent to landfill so all animal material is rendered. The material is divided into three categories depending on the level of risk:

<table>
<thead>
<tr>
<th>Category 1 (highest risk)</th>
<th>Specified risk material linked to non-classical diseases like BSE &amp; scrapie, this includes the bovine spinal cord and brain Fallen stock (ruminants) Anything handled with Category 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 2</td>
<td>Material not fit for human consumption Fallen stock (non-ruminants)</td>
</tr>
<tr>
<td>Category 3 (lowest risk)</td>
<td>Fit for human consumption at the point of slaughter Animal products without a specified disease risk like egg shells, feathers, bristles and horns Former foodstuffs and catering waste</td>
</tr>
</tbody>
</table>

The products of rendering

Rendering produces two main products, fat (known as tallow) and protein, how this material is further used depends on the risk category:
The process

Rendering uses heat and pressure to sterilise and stabilise animal material. Sterilisation kills harmful microorganisms thus eliminating disease risk. Stabilisation removes water to prevent any further decomposition of by-products and makes them suitable for storage and reprocessing for other uses.

The removed water is the single largest output of the process – 65% by weight – it is treated for safe return into the environment. Each year, EFPR members take in 17 million tonnes of material and produce 6 million tonnes of rendered products as well as water.

The benefits

Rendered materials can be used in place of products that would have to be produced by other means, including fossil resources like coal, oil and natural gas for fuel and nitrogen and phosphorus for fertiliser.

When rendered materials are combusted for fuel, they are carbon neutral because the carbon is part of a short carbon cycle:

Turning by-products into useful resources provides savings across the supply chain meaning cheaper disposal costs for producers and lower prices for consumers.

Fertilisers from rendering are a valuable source of nutrients for organic and conventional farming systems.

Overall, rendering increases the competitiveness of the EU meat and farming sector – creating jobs and encouraging investment.
Disease control and biosecurity

The rendering industry is underpinned by strict veterinary principles so as to prevent the spread of animal diseases and zoonoses, these include:

- Prompt collection of hazardous and potentially hazardous material from farms and slaughterhouses
- Full traceability and safety along the reprocessing chain using a HACCP (Hazard Analysis Critical Control Point) approach
- Strict rules on the reuse of specific materials
- The European rendering industry fulfils the highest regulatory standard worldwide

Good disease control not only protects EU citizens and animals, it also supports the meat and dairy export industry by ensuring that EU products meet the food safety requirements in export markets.
EFPRA represents the animal by-products processing sector in Europe and is a leading authority on the regulation, manufacture, bio-security and nutrient value of processed animal protein and animal fat. EFPRA members employ over 15,000 employees and process raw material on approximately 400 lines across the entire membership.

EFPRA has a single primary objective; to continually improve the safety, security and sustainability of European food production by efficiently processing animal fats and animal by-products.

It brings together European by-product processing organisations that produce high-quality products, edible animal fats and processed animal protein. It also works closely with partners worldwide for the technical advancement of the industry.

For more information about processed animal protein, animal fats and the European by-product processing industry visit www.efpra.eu or call +32 (0) 2 203 51 41.