

# Collagen casings conquer the market in sausage production

by the technical team, Devro, Germany.

According to a comparison study by the ISI GmbH, Institute for Market Research, Sensory Analysis, and Sensory Marketing in Göttingen, sausages in collagen casings have received better ratings in the criteria appearance, bite and crispness ('knack') than sausages with conventional gut casings.

At the same time, collagen allows sausage manufacturers to produce much more efficiently with savings of up to €0.50/kg. However, this cost advantage does not diminish the quality – on the contrary, collagen casings are even better in terms of traceability and product safety.

Traditionally, gut casings have mainly been used for the manufacturing of sausage products. Recent developments, however, have shown that collagen casings are on the rise, increasingly conquering the market.

The comparison study tested how customers react to this product innovation. The appearance of

sausages – the most important point of sale criterion – was rated higher for sausages with collagen casings than for those with conventional sheep gut casing.

Test consumers were also asked to evaluate the sausage in terms of colour, bite and 'knack'. Vienna sausages in collagen casings were rated 'just right' more often than the sausages in sheep gut casings.

Overall, Vienna sausages in sheep gut casings and those in collagen casings were rated identically in terms of general acceptance.

Recent awards are further proof of the high quality of collagen casings. In February 2014, several products containing collagen casings by Devro won gold medals at the DLG Awards for quality assessment.

## Increase of 30%

Collagen casings are especially popular in countries where food origin and quality play an important role. Therefore, countries such as Germany or Japan are currently showing double-digit growth rates in this sector.

What is more, forecasts indicate a considerable increase and in the coming years, collagen will be used more and more often for sausage production.

Experts expect that by 2017, 40% of the global production of sausages will be stuffed into collagen casings – an increase of over 30% compared to 2013.

Besides the obvious product advantages (appearance, colour, bite and 'knack'), collagen casings provide producers with a whole range of key benefits.

## Less cost, better quality

Collagen allows for a more effective manufacturing process since collagen casings are consistent in quality, shape and calibre, compared to traditional gut casings. This means there are considerably less rejects. This also facilitates a cheaper and more efficient production process.



One advantage is that collagen casings are immediately ready for use. There is no soaking or other preparation required as, for instance, with gut casings.

Collagen casings are particularly effective when sausages are filled mechanically with conventional stuffing machines, as the casings are replenished automatically. This again leads to shorter throughput times. Overall, manufacturers can double their production volume compared to when using conventional gut casings.

The characteristics of collagen are also beneficial during the subsequent

production phases. For example, the smokehouse throughput time during the curing and cooking process can be optimised by around 15%. And the identical form and size of the sausages provides further saving potential in terms of packaging material.

Considering the entire production process, when manufacturing, for example, 10 tonnes of sausage with collagen casings per week, savings can amount to a total of €5000 weekly or as much as €250K per year.

In order to show the measurable

*Continued on page 24*

## Examples of collagen casings.





*Continued from page 23*  
 savings in sausage production with collagen casings Devro has a price calculator online, which takes all relevant production areas into account. This makes it possible for manufacturers to calculate possible savings for their specific products, manufacturing systems and applications.

Further advantages for manufacturers include the fact that collagen is always available, and there are no seasonal market price fluctuations. Also, due to standardisation, collagen casings can be stored more easily and cost efficiently.

### More safety for consumers

Manufacturers' concerns that the financial benefits of using collagen casings might compromise the quality are unfounded. Like gut casings, they consist of animal protein.

Collagen is extracted from selected skin layers of animal origin, and is therefore made of a harmless natural raw material. The produc-

tion of casings with the applied collagen extraction method is not harmful to consumers.

In recent years, the technology has been improved continuously, so that the production process now meets the latest standards and requirements. The numerous advantages have been reflected by considerably less complaints about collagen casings.

Another advantage of collagen is the high quality assurance due to the excellent traceability of the products, which has been an important issue since the latest food scandals.

Today, manufacturers, distributors and consumers put more and more emphasis on product safety and the use of harmless natural resources.

Devro has adapted to these needs. For example, collagen products are no longer transported from and to different countries for cleaning or further processing. Thereby, the origin, processing and selling of products remains transparent for manufacturers and consumers.

Devro is already working towards their next goal – complete traceabil-

ity of its collagen casings throughout the entire production process from the individual farm animal to the finished product. For some products in Scotland, this complete traceability has already become a reality.

To achieve this, all involved in the production process work closely together. Tanneries supplying Devro with the collagen deliver documents for each batch.

A certificate confirming that the collagen is suitable for human consumption, and additional information on the holding of origin, as well as ear tags with the identification numbers for each animal, is also provided. The document is passed on throughout the entire production process, and finally handed to the sausage manufacturer.

### Additional value

Devro not only produces collagen casings for the food industry, experienced technology and production experts also support sausage manufacturers all over the world, by pro-

viding expert advice on application issues and optimal implementation during production. This improves efficiency during production as well as product safety and quality assurance, which are both important to consumers. Devro also provide access to their in house laboratories for testing, development and the further education of retailers, manufacturers and customers.

In summary, collagen is a clean, safe and controlled natural resource, which, over the coming years will experience a considerable increase especially in the field of sausage production. ■