

## LIVESTOCK

Poultry rendering focuses on by-products of the slaughter process which are suitable for use in pet food industry and animal feed. Mavitec offers designing, engineering, manufacturing and installation of high quality process systems for this purpose.

## From by-products to high proteins

**W**ITH A GROWING global need for proteins and energy, processing animal by-products is an essential part of the answer to this problem.

Animal by-products are products from the meat production chain which are not considered to be edible. Its composition and quality may vary from country to country, depending on the cultural and/or eating habits. However, before using them in other processes, they have to be treated and processed first. Mavitec offers high quality process systems for the recycling of animal by-products and aims to maximise the value of by-products in the most economic, ecologic and ergonomic way.

### Nutrient management

Mavitec is specialised in designing, engineering, manufacturing and installation of high quality process systems for the rendering of animal by-products. They supply solutions by taking by-products from one process and recycling them into valuable products for further applications.

According to Helmus Damen, Sales Director of Mavitec, the way of processing determines the value of the end products. "This is why we say that rendering is not waste handling, it is nutrient management. With our extensive experience, technology and processes, we are able to extract the highest possible protein out of feathers, blood or other poultry by-products."

### Poultry rendering

Mavitec specialises in poultry rendering, a

process that handles all by-products of the slaughter process. There are different ways of poultry processing and the quality of end-product depends on the raw material composition you put in the system.

Poultry by-product processing starts with five possible product flows – feathers, blood, soft by-products (heads, legs, intestines), Doa's and farm/hatchery by-products.

Damen informed that the company provides solutions for small abattoirs as well

**Mavitec machines turn animal by-products into high quality proteins and oils such as meat and bone meal, poultry meat meal, feather meal, suitable for use in animal feed.**

as high-end solutions. Their machines turn animal by-products into high quality proteins and oils such as blood meal, meat and bone meal, feather meal and poultry oil. These protein products are suitable for use in pet food, animal feed, oleochemical and or pharmaceutical industry.

Speaking about some of the success stories, he added, "Amor Farm in Nigeria has been running for three years now with our rendering container solutions. This is a fully functional rendering plant in a container, designed to process small quantities of poultry or red meat by-products. Thanks to the smart design and small footprint, this is saving them a lot in their feed budget. Most of our rendering

plants also process red meat, and soon there will be for fish too."

He said, "The main objective is to stabilise the products by driving off the moisture, sterilise the product and turn it into a combination of protein (meal) and oil or only a protein. By following the processes described in EU legislation 1069/2011 guarantees can be given in terms of end-quality and the security to be free from any salmonella, e. coli or clostridium."

Damen added that each product has its own specific process that can be designed, based on capacity in a batch or continuous process.

"Volumes above 50 tonnes of raw material per day are mostly processed in continuous systems, while smaller volumes are processed in a batch process. Poultry meat meal has an average protein content varying from 62-68% with a digestibility above 80%. The oil content can be used as feed additive or for biofuel industry," he explained.

Speaking about some of the challenges that the company faces in Africa, Helmus added, "We have several rendering plants running in North and South Africa, from Sudan to Egypt. There have been some issues related to prices (over/under priced). Some other hurdles include those related to import or export, which is usually country specific."

Mavitec's latest innovation is a new in-line method to analyse and optimise the quality of these meals and oils. The in-line Near InfraRed Spectrometer provides real-time data for moisture, protein, tallow/fat/oil, ash and FFA. **B**

Mavitec machines turn animal by-products into high quality proteins such as poultry meat meal and feather meal, suitable for use in animal feed.