INTERNATIONAL

13 / 2017

MEATING POINT magazine

SUSTAINABLE TECHNOLOGY, PROCESSING & PACKAGING

FOOD PACKAGES: SAFE, EFFICIENT, SMART AND SUSTAINABLE

IMPOSSIBLE IS POSSIBLE

ENERGY-EFFICIENT VACUUM SUPPLY FOR MEAT-PROCESSING PLANTS

SWISS PRECISION... ...AS A RESULT OF BELL'S UPGRADE

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Dear reader,

Tristan Bogaard

Numerous studies verify the significant role that packaging plays in purchase decision and even consumers eating behaviour. What packages in the food sector are capable of today goes far beyond their original purpose of protecting food. Along with the primary purpose to protect content during transportation and storage, modern packages have to perform numerous feats simulta-neously: meet the needs of marketing and sales, look appealing on the overloaded supermarket shelves, comply with safety and hygiene regulations, and meet consumer requirements such as sustainability and easier handling while keeping the cost of production, transport and storage low.

Sustainability in food packaging, which is mainly associated with recycling and disposal, plays a major role in a person's purchase decision. A current survey showed that consumers were pre-pared to pay around 12 percent more for the same product if it could be made more eco-friendly. Consumers are currently demanding the use of sustainable packaging materials and are putting pressure on manufacturers to increase their environmental awareness. Companies are looking for new technologies that reduce the amount of plastic in packaging, but can still guarantee food safety. There is also a clear trend in the industry to use renewable resources. Used instead of conventional materials with a view of diminishing the carbon print, are often considered as extra-sustainable. The development of deposit and recycling systems and, no less importantly, clear targets have led to a strong increase in package recycling in the last few years. Recycling is on the advance, particularly in Europe, and all EU states are to recycle half of their domestic waste by 2020.

Our cover story "Food Packages: Safe, Efficient, Smart and Sustainable", looks at how packaging suppliers are providing adequate solutions to these requirements.

You will find cutting-edge technologies for intelligent and sustainable packaging at interpack 2017, the worlds largest international exhibition for packaging, to be held in Düsseldorf, Germany from 4 to 10 May 2017, a unique platform for businesses offering products and solutions in packaging technology and related processes. Do not miss to see one of the highlights of the exhibition, a special show called innovationparc which will address packaging ideas and solutions designed to reduce food losses and waste, and fight global hunger.

Enjoy your read!

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DALZIEL LAUNCHES FIRST CHICKEN BRAND

Retail butchery specialist Dalziel has launched its own premium quality chicken brand called Kingsworth, under an exclusive partnership with leading Netherlands' poultry processor Vreisekoop.

Kingsworth is offered in a range of the best quality fresh chicken breast fillets and chicken thighs specially selected for retail and catering butchers.

It is exclusively available from Dalziel's meat depots throughout the UK.

David Whyatt, meat sales director at Dalziel, said: "We're proud to introduce our own premium quality chicken brand with Vriesekoop.

"Kingsworth offers the best quality chicken under a strict selection process where it is extra trimmed on the line, fully calibrated and packaged in gas packed trays to meet our quality criteria.

"We believe Kingsworth will become best around and will further strengthen our share of the poultry market in the UK."

With the introduction of Kingsworth, Dalziel expects to increase its sale of chicken breast from 100 tons per week to 150 tons per week by the end of 2017.

Eduard Majauskis at Vriesekoop, said: "Our finest chicken products are specifically selected under strict quality criteria for today's demanding markets. We are proud of our partnership with Dalziel, which shares our commitment to premium quality, service and innovation."

Kingsworth is the fourth exclusive meat brand to be launched by Dalziel, following the launch of its Oakwell Gold gammon and 'Glenvale' pork brands in 2015, and its highly successful 'Drovers beef range' in partnership with Dunbia in 2012.

Dalziel Ltd is the UK's specialist supplier to the nation's retail butchery industry, serving butchers since 1926 with a

full range of the finest quality frozen and chilled meat, an extensive range of ingredients, butchers' sundries and packaging.

The Dalziel group is also a major supplier to food processors - other divisions include Dalziel Ingredients which specialises in seasoning, cures and blended ingredients, and Rillatech, which supplies food casings and packaging materials.

www.dalziel.co.uk

A CUTTING EDGE EXPERIENCE

From March 15th to 17th, Bangkok was the place to be for all South East Asian professionals involved in the poultry industry. At VIV Asia poultry processors from this part of the world could find out how Marel Poultry adds most value to their operations. Notably the "Cutting Edge Showcase" drew huge attention from the visitors.

The cut-up showcase turned out to be a tremendous success. Every session gathered a crowd of people at Marel Poultry's stand who were all very interested in the cutting maneuvers needed to get the end products required by the South East Asian market.

Live cut-up

By live performing manual cuts at the demonstration table, cutting master Willem van de Ven explained how Marel Poultry's equipment goes about to achieve in an automated way the same result as skilled manual operations. This cut-up showcase was supported by a big overhead screen which alternated between processing videos and a live stream of Willem's actions, making it a very interactive happening.

While he gradually cut up the broiler, Willem told the audience how the Stork ACM-NT modules such as the Second Joint Wing Cutter HY (for a typical Asian wing cut) and the JLR (for legs) mechanically translate these movements.

Subsequently, deboning was addressed, connecting to the AMF-i and FHF-XB breast filleting systems as well as the Stork Thigh Fillet System.

During VIV Asia, Marel Poultry showcased a live manual cut up demonstration.

Willem concluded each cut-up session with a portioning chapter, referring to the I-Cut 122 portion cutter. During every showcase session, the audience was captivated by the subject and stayed to watch the full 20 minutes.

Need for automation

By manually mimicking the movements of cut up and deboning equipment, Marel Poultry showed its high level of specialized research, development, engineering and

application, all needed to understand processes such as thigh deboning. This showcase setup clarified processes more than the equipment itself could possibly do; it is fairly unfeasible to reveal the real mechanical operations, even when using running machines with open panels.

The live cutting demonstration reflected the trend to automation as a means to improve quality, hygiene and food safety. The demonstrated manual processes were so complicated, that processing plants would need a large amount of skilled laborers to achieve them. However, there is a global shortage of such expert work force, which also explains the need for automation.

Marel's Portioning Product Manager Steen Petersen

Highly pertinent topics

The I-Cut 122, which was fully functioning at the Marel Poultry stand, reflected the transition from manual cutting to industrial operations. The VIV Asia audience could witness live demonstrations of automated cutting by this sophisticated portion cutter for deboned poultry meat. The dual lane I-Cut 122 is able to make the most refined cuts, creating tenderloins,

fillets, thigh pieces, strips, cubes or kakugiri with the least give-away possible, thereby saving much skilled manual labor. VIV Asia showed that these topics are highly pertinent today in the South East Asian market; every time Marel's Portioning Product Manager Steen Petersen performed a live demonstration, it attracted a crowd of visitors. **www.marel.com**

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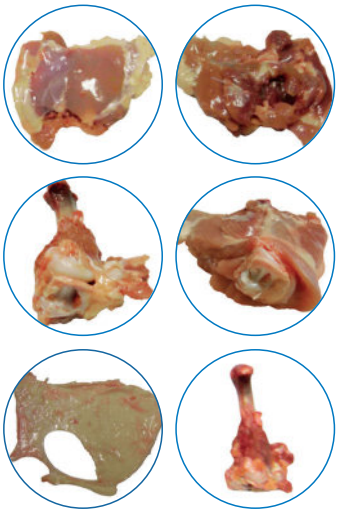

The brand-new STEEN® ST832 chicken thigh de-boner with kneecap (patella) cartilage remover.
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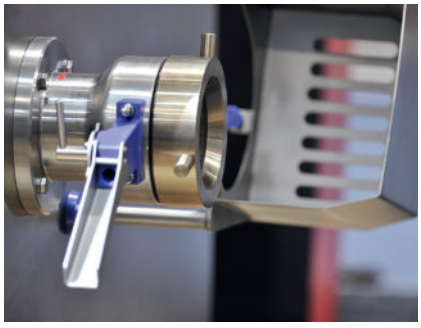
ADVANCED SORTING DEVICE ENSURES MORE HYGIENE SAFETY

EASY ASSEMBLY AND THOROUGH CLEANING MAKE THIS FURTHER DEVELOPED SOLUTION THE RIGHT CHOICE

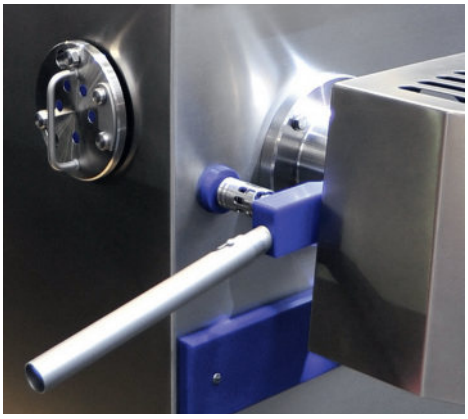
Based on their own claim to find solutions that not only promise more but actually offer more in practice, K+G Wetter GmbH develops machines that make work in the butchery trade easier via precise details. One such clever detail is the sorting device on the K+G grinders and mixer grinders. What is so special about this is that the hard parts are removed laterally from the grinder. Conventional systems direct the cut-off hard parts centrally through the cutting set and hose, so that the cutting set loses surface and begins to grease in the area of the discharge after a certain time. In addition, the K+G Wetter solution makes it easier and faster to check the material selected. A further advantage of the lateral discharge without hose is the free and safe working area. The traditional company based in Hesse (Germany) has now further optimised its sorting device to ensure a high degree of hygiene and efficiency.



Whether manual or pneumatic: The K+G sorting device can be installed or removed very quickly to clean the individual components easily and thoroughly.

Clean to the smallest detail

Dirt can accumulate on those machine parts that are difficult to access. This is not only unhygienic but also costs valuable time for cleaning. That is why K+G Wetter has now designed its sorting device in such a way that both the manual and pneumatic device can be completely installed or removed in just a few seconds. This allows the user to clean the individual components particularly easily and thoroughly. "Because we know that the cleaning of components that are difficult to reach, such as the sorting device, is often associated with a lot of effort and unnecessary time losses, we have teamed up with our designers and worked on the new solution for even better cleaning," says Volker Schlosser, sales manager at K+G Wetter. The connection of the drive to the closing mechanism of the new sorting can be separated easily and without tools via a plug-in connection.



The K+G Wetter pneumatic unit is now completely installed in the body of the grinder and therefore does not come into contact with the product to be processed – a real plus in terms of hygiene.

Cleaning in no time

K+G Wetter also places particular emphasis on hygiene on the technically demanding, pneumatically operated sorting device. The pneumatic unit is completely installed in the body of the grinder or the mixer grinder. This has the advantage that the sorter drive does not even come into contact with the product to be processed and possible contamination is thus prevented. Faster, simpler and safer to handle, K+G Wetter ensures a smooth cleaning process and hygienic meat processing – for the quality you end up tasting.

www.kgwetter.de

LINPAC ANNOUNCES LAUNCH OF LINTOP® SKIN FILM RANGE

Brands and retailers can now benefit from enhanced vacuum skin pack presentation thanks to the newly launched LINtop® PE HB SKIN film range from leading fresh food packaging manufacturer, LINPAC.

LINPAC has designed the latest generation of high-barrier PE vacuum skin top films to enhance the performance and shelf-appeal of its Rfresh® Evolve rPET trays, resulting in the addition of an outstanding complete pack solution to its existing portfolio.

Group Marketing Manager at LINPAC, Nikki Clark, commented: "We're pleased to launch the new SKIN series, which demonstrates our commitment to offering our customers a streamlined, total pack solution. Using our barrier film expertise to create this advanced skin pack design benefits the whole supply chain and ultimately the consumer."

Retailers can expect greater on-shelf appeal due to the highly transparent, matt finish of the LINtop SKIN fully co-extruded top web, which delivers a secure seal when sealed at low temperatures and efficient 'easy-peel' opening for consumer convenience.

Furthermore, the complete vacuum skin pack solution optimises on shelf-presentation for processed and red meats and fish due to reduced pack volume, the option to display the pack vertically without cabinet adjustment and less food wastage due to longer shelf life performance.

Clear, white and black tray options are available for low profile and high protrusion – 80 to 150 µm – applications. Notably, the pack delivers improved flat-pack appearance with less tray distortion thanks to its production at lower seal temperatures.

The complete skin pack solution is designed for use on existing high-speed, suitably modified tray sealing lines and thermoforming lines, which offers greater speed to market with less risk for packers.

The LINtop PE HB SKIN film range joins a comprehensive range of stretch and high barrier PE and PET LINPAC films that are produced in Pontivy, France, for use with LINPAC EPS, PP and rPET trays that are manufactured in regions around the world.

LINPAC complete pack solutions present a cost-effective, single-supplier alternative for food manufacturers who wish to protect, preserve and present fresh food to its best advantage.

www.linpac.com

NEW STAPLELESS STAPLER ENHANCES DETECTAMET'S SWITCH2STITCH® RANGE

A brand new stapleless stapler available from Detectamet is capable of securely stitching together ten sheets of 80gsm paper without the risk of contamination from small metal staples.

The modern metal stapler appeared 80 years ago. It has been estimated that $20million worth of staples were sold in the USA in 2012. That is the equivalent of 25billion staples used in all applications.

Food contamination from metal is the most frequent physical contaminant and staples are the fourth most common metal source. To prevent this happening policies are applied that ban the introduction or use of staples in the food processing environment.

Detectamet has worked for a number of years through its switch2stitch® program to help food producers stay in control of the multipage documents necessary to instruct, advise and record food process activities. One click will secure the 10 pages with a cutter and folder that make the tabs to be folded into the slot in the paper.

The blue, green or red coloured staplers mean that they can be allocated to particular use or locations within a HACCP and HRPC Management System.

Angela Musson-Smith, Detectamet Inc's President, explained that "We are always mindful of the practical needs of the food industry and we are aware that good food safety practices can sometimes have unintended consequences." she pointed out that " Removing metal fastenings from gathered pages can send documents into a mixed up pile of panic, so at Detectamet we have gathered several products under our switch2stitch® program that removes the risk of contamination and retains the certainty of safe fastenings."

The easy to use stapleless stapler keeps a ten page document secure and reduces the risk of contamination.

www.detectamet.com

KLÜBER LUBRICATION NUMBER ONE IN TERMS OF PRODUCT QUALITY AND PRICE STRUCTURE

RECENT STUDY COMPARES INTERNATIONAL SUPPLIERS OF SPECIAL LUBRICANTS

According to a recent study conducted by the market research institute TechSci Research, Klüber Lubrication ranks first among the suppliers of speciality lubricants: The tribology expert in Munich takes first place in the categories product quality and price structure and obtains a top 3 ranking in Sales. Thus, Klüber Lubrication is the number one in the overall ranking.

"The results are particularly noteworthy because they are mostly based on surveys conducted with representatives of competitor companies", says Claus Langgartner, Speaker of the Board of Klüber Lubrication. "The fact that we outperformed some of the big names in the lubricant industry highlights the market leadership of Klüber Lubrication in the speciality lubricants business."

The study is based on surveys conducted with speciality lubricants manufacturers and their sales partners as well as other industry experts. In addition, the results obtained from a comprehensive research of the relevant publications, for example business reports of the companies, were included in the ranking.

TechSci Research is a research based consulting firm conducting market studies for different branches of industry on a regular basis. The study "Global Specialty Lubricants Market By Type, By End Use, By Region Competition Forecast and Opportunities, 2011 – 2025" was published in October 2016.

www.klueber.com

FOOD PACKAGES:
SAFE, EFFICIENT, SMART AND SUSTAINABLE

Modern packages think for themselves, remind us, extend shelf life, can be heated at the press of a button and influence our senses with their appearance, odour and feel – and some of them can even speak. What packages in the food sector are capable of today goes far beyond their original purpose of protecting foods.

Packages have to perform numerous feats simultaneously: meet the needs of marketing and sales, comply with safety and hygiene regulations, and satisfy such consumer requirements as sustainability and easier handling while keeping the cost of production, transport and storage low. Thanks to the very latest machines with highly automated sensor- and microprocessorcontrolled drive technology, coupled with innovative materials that can be produced and disposed of sustainably, the packaging industry has succeeded in converting a 6,000-year-old idea into a modern high-tech product.

First and foremost: protection due to packaging

And yet the primary purpose of each package – that of protecting its contents during transport and storage – remains unchanged. Packages prevent contamination and damage and protect foods from harmful environmental influences such as light, oxygen and moisture. They provide protection from spoilage due to microorganisms and prevent the loss of flavour or vitamins.

Up to 1.3 billion tonnes of foods, says the Food and Agriculture Organisation (FAO) of the United Nations, are lost each year worldwide. In some cases, fresh goods spoil during transport, are not consumed in time or are deemed unsaleable because they fall short of the given standards. And often enough, still edible food is discarded by consumers because the sell-by date has expired. For over six years now, this overall issue has been addressed by the SAVE FOOD initiative of the FAO, the environmental programme of the United Nations Environment Programme (UNEP) and Messe Düsseldorf in cooperation with globally leading companies, organisations and research institutes. Their joint goal is to devise solutions to prevent food loss and wastage along the value chain. This involves making suitable infrastructure available, re-examining and modifying standards for packaging, raising awareness and, last but not least, working on the package itself.

For what is now the third time in succession, the initiative with the international SAVE FOOD congress, which marks the start of interpack in Düsseldorf from 4 to 10 May 2017, is being given a suitable platform and bringing together various stakeholders from business, science, the political sphere and civil society in the fight against food wastage. Within the fair, the special SAVE FOOD exhibition will be held for the second time in the innovationparc, which has been energetically taking up a selected issue from the sector at each interpack since 2008.

Hygiene's not everything, but food is nothing without hygiene

When it comes to food packaging, hygiene is top priority, and sensitive meat and sausage products are subject to extreme standards of hygiene. Complete high-performance production lines inclusive of meat grinder, portioner and tray-sealing unit focus not only on performance, flexibility and product quality, but also on the interfaces – because these have a huge bearing on productivity.

Photo: Sealpac

A product's shelf life can be extended significantly by vacuum skin packaging.

The responsibility for food safety lies with the manufacturer itself. Inplant hygiene controls are strongly advised, but even more important is the exclusion of possible hygiene traps from the outset. Covering everything from comprehensive hygiene design and effortlessly cleanable components to sterilisation of the ambient air with short-wave UV radiation, highly advanced equipment delivers the highest standards of hygiene.

In the SB sector particularly, the skin pack, a two-component SB package consisting of PP or CPET tray sealed with a skin film, has become increasingly prominent. "It's possible to extend product shelf life considerably with vacuum skin packaging," explains Stefan Dangel, Sales and Marketing Manager at Sealpac.

Intelligent packaging

The innovative powers of the packaging industry are remarkable. Anyone investigating the very latest packaging technologies cannot fail to encounter nanotechnology, and printed and organic electronics. Intelligent and smart wrappers that are capable of identifying and affecting the degree of food freshness in a controlled fashion are now anything but utopian.

Active packages control the moisture level, prevent the proliferation of germs and even kill them – by using absorbers, for instance. Iron keeps oxygen-sensitive beverages like beer or juice fresh for longer. Table salt in the package inhibits the formation of condensation and enables mushrooms, for example, that tend to discolour after a short while, to look good for longer. "The idea was to develop a package that can take up and regulate moisture," says Dr Cornelia Stramm of the Fraunhofer Institute for Process Engineering and Packaging IVV in Freising, explaining the aim of the research project.

Visibly fresh

Whether food is still edible can be rendered visible by the special sensors of modern packages. These react when certain substances or gases are released and indicate this with a change in colour and fluorescence. The state of the food is then evident at a glance. One of the most frequent causes of food spoilage is breaks in the cooling chain. Intelligent time-temperature indicators are capable of indicating such discontinuities, usually with a colour change.

Photo: Fraunhofer IVV

If excess moisture is taken up by special absorber films, for example, the mould and germ risk falls.

Sustainability as a basic discipline

Consumers expect a great deal of their food packages. Their demands of the packaging industry cover not only safety and hygiene, but also sustainability. Consumers mainly associate sustainability with recycling and disposal. The development of deposit and recycling systems and, no less importantly, clear targets have led to a strong increase in package recycling in the last few years. Recycling is on the advance, particularly in Europe, and all EU states are to recycle half of their domestic waste by 2020.

In the assessment of package sustainability, both the material used and its quantity are important as well as package size in relation to its contents. In the industry, there is a clear trend towards using renewable resources. Used instead of conventional materials with a view to diminishing the carbon footprint, these are often hailed as extra-sustainable. However, studies show that precisely these conventional materials, e.g. classical plastics, yield environmental benefits when a product's entire life cycle is considered – as a result of efficient recycling systems, for example. Ultimately, what counts as the most sustainable solution calls for a comprehensive consideration of the case in question, taking account of the various factors at all stages in the value chain.

Packaged 4.0

In addition to consumer expectations, the packaging industry is also exposed to the growing requirements of its customers. Responding to the desire

Photo: Bosch

Intuitive machine operation with the HMI 4.0 from Bosch.

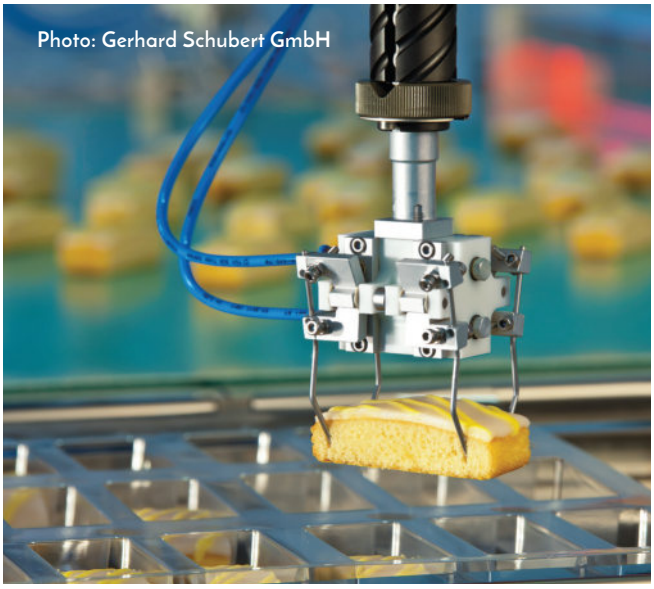


Photo: Gerhard Schubert GmbH

Bakery goods are gently packaged with special grippers.

for greater flexibility and efficiency, the sector reacts among other things with an intelligent and interlinked factory in which classical mechanical engineering efficiently networks with sensors, software and services.

Industry 4.0 has long become the standard in the food industry and is closely associated with the component industry, which can be seen as blazing the trail of technological progress. In the special show "components – special trade fair by interpack", highly advanced drive, control and sensor equipment will be exhibited alongside products for industrial image processing, handling technology, industrial software and communication, and complete automation systems for packaging machines.

Modern lines are capable of not only autonomously supplying information on process and system states, but also communicating with each other and independently correcting processes where necessary. "Intelligent products then individually control their own production process. And this is not all: thanks to communication throughout the value chain, a product's life cycle becomes continuously traceable. Totally new business models are possible," explains Hartmut Rauen, Deputy Executive Director of Germany's Mechanical Engineering Industry Association (VDMA).

A pioneer in the use of such progressive technologies is Bosch Packaging Technology. Technology which is planning to equip all new process and packaging machines with its next-generation Human Machine Interface HMI 4.0 as of interpack in May 2017. One of the new features is guided intuitive operation with multi-touch technology – much like on smartphones and tablet computers. The system reports malfunctions immediately and, in addition, provides information on the possible cause and assistance with remedying the problem. "This is a revolutionary innovation," says Stefan König, member of executive management at Bosch Packaging Technology.

Photo: Gerhard Schubert GmbH

Industry 4.0 is has long become the standard in the food industry. Intelligent systems ensure greater flexibility and efficiency in the packaging process.

Packaging is indispensable for modern society. And this applies especially to foods and becomes apparent above all where it is lacking – in developing countries. Food often spoils due to the lack or inadequacy of packaging for transport and storage before it reaches the consumer. In the industrialised nations, on the other hand, a package not only has to protect, but it has to look good as well. And it has to stand out on the overloaded supermarket shelves, because the majority of customers only decide while shopping which product actually lands in the basket.

www.interpack.com

MODERN PACKAGING, SILENT BRANDING:

HOW BIGLER'S MEAT PRODUCTS WERE SUCCESSFULLY RELAUNCHED WITH THE SUPPORT OF FILM SUPPLIER BEMIS AND EQUIPMENT MANUFACTURER SEALPAC

Under the claim „Ä Portion Tradition", Swiss company Bigler AG Fleischwaren (www.bigler.ch) promotes its extensive range of fine meat products, supplemented by sandwiches, canapés, fresh salads and seasonal items. Bigler is proud of its craftsmanship in food processing, a family tradition that is constantly reinvented through innovative products and modern processes. Last year, the family-owned company in Büren an der Aare, which employs around 600 people, initiated a relaunch of its del Lago brand. Under the new brand name Bigler, the entire product range is now presented in a fresh and uniform packaging design. We spoke with Gérard Bigler (Head of the processed meat division) and Markus Bigler (Chief Financial Officer) about this relaunch, the differences between the meat markets in Switzerland and the rest of Europe, as well as about current packaging trends.

Gérard Bigler – Head of the processed meat division at Bigler AG.

Markus Bigler – Chief Financial Officer at Bigler AG.

The Bigler promise

Relaunch of the Bigler brand – underlines the company's promise to produce butcher-quality meat from the Swiss region.

For approximately twenty years, Bigler has been present on the market with two different brands: Bigler as the umbrella name, and del Lago as the main brand in the self-service sector. Since autumn 2016, there has been a new strategy: all products are now marketed in new packaging under the brand name Bigler. Markus Bigler explains: „With the del Lago brand we were well established at retailers and consumers. Howwever, the brand name was often not directly associated with our company Bigler. Therefore, we examined if we were still on the right track and decided for a new brand appearance." Gérard Bigler adds: „Our customers now understand at first sight who they are dealing with. The new logo communicates exactly what we stand for: it symbolizes our craftsmanship as a butcher, shows that we vouch for our products with our family name and underlines their Swiss origin. All in all, it explains our Bigler promise: to produce butcher-quality meat products from the Swiss region."

In Switzerland, 'from the region' is similar to what is sometimes labelled as 'bio' in other European countries: nature-oriented, animal-friendly and with shortest transport routes. This is especially important in the meat sector, as 'from the Swiss region' conveys trust. Markus Bigler: „Looking at our overall image after the relaunch, we have deliberately chosen silent branding and are using cream-coloured printing for our packaging, whose design elements discreetly resemble those of the former del Lago brand. In this way, we want to distinguish ourselves from the often bright and shiny appearance of other players on the market."

Paper look and feel

The new packaging design is characterized by its natural look and pleasant haptics, owing to a special film with paper look and feel, which was developed by Bigler together with its partner Bemis. This new Paper-Like™ film closely resembles real paper and gets its paper feel from a special printing technology. Gérard Bigler: „This type of film already exists for a couple of years, and we were immediately interested after it was presented to us by Bemis. That is what makes long-term partnerships with suppliers like Bemis and SEALPAC worthwhile: new

Fully automated production lines – highest outputs with SEALPAC thermoformers and traysealers.

ideas are being presented, discussed jointly, and then further developed until everything matches. In this case, it took about two years from the first idea up to the launch of the new packaging at retail. The project was executed with great personal commitment from all stakeholders involved – within Bigler, but also within our long-standing partners Bemis and SEALPAC."

Typical Swiss

For many Europeans, Switzerland has a slightly different culture when it comes to the presentation of food products at retail. Especially within the meat segment, vertical presentation has been the standard for a long time already. By presenting meat products in a standing or hanging position, they are more attractive to Swiss consumers. This explains why skin packaging has seen a much stronger growth in Switzerland than in various other European countries, such as for example Germany. The advantage of skin packaging is that the product remains securely fixated and does not move, resulting in an excellent appearance. For retailers, skin packaging allows them to fit more products on the shelf. Main applications in Switzerland are fresh and marinated meat, but vertical presentation is also common for seafood and even ready meals.

Since 2011, Bigler has been using SEALPAC's TraySkin ® and ThermoSkin® systems with Bemis SkinTite™ film to create so-called TriWeb packs. Here, the product is skin packaged directly inside the (pre-formed) tray, after which a second top film is applied. By doing so, a flat surface is created that allows for smooth labelling. Furthermore, the skin packs can now easily be stacked with minimum risk of leakers. The additional chamber, created by the second top film, even allows for extras, such as garlic butter, spices or recipes.

Striking packaging design with Bemis Paper - Like™ film – natural look and pleasant haptics.

Benefits of skin packaging

What sometimes holds back the development of skin packaging for fresh meat is that the colour of the product inside the vacuum pack will be less red. Gérard Bigler: „The fact that meat products in skin packaging are characterized by a darker red has been well received by Swiss consumers. In my view, however, the colour is not decisive. It is important that the product as a whole convinces with an appealing appearance." Therein the Swiss differ from other European countries, where meat is mainly packaged under modified atmosphere, because consumers there are mostly conservative and prefer meat with a bright red colour. On the other hand, the demand for skin applications is growing noticeably in Germany as well these days. Especially high-quality products, such as premium or organic meat, are increasingly offered in skin packaging, because the quality of the meat can be improved: under vacuum it will mature better, remain beautifully tender and stay fresh longer.

Gérard Bigler: „I am pretty certain skin packaging will also revolutionize the German and other European markets, as the advantages speak for themselves. Due to the vacuum, at least two days of extra shelf life are achieved, which is considerable for meat. In this way, the shelf life of fresh meat can be extended to 12 days, which is extremely important for retailers, as they can now cover two strong-selling weekends." Markus Bigler adds: „But maximum shelf life can only be achieved with an optimal cooling chain. To keep this under control, we own a fleet of no less than 60 trucks that drive all over Switzerland on a daily basis to provide fresh products to the retailers. This is cost-intensive, but product quality is our main asset to our customers. And we owe it to our

quality commitment, which we have underlined again with our relaunch."

Convenience products

Bigler will soon be opening a whole new building that allows the company to meet the everincreasing demand for high-quality convenience products. In its new premises, Bigler will for example be able to process vegetables and produce its own sauces. Another example of keeping as many production steps as possible in house to meet the quality promise. Gérard Bigler: „Convenience is still an exciting topic in Switzerland. Here, from my point of view, especially those products have a future that are easy to prepare, but leave the end user enough space to add his or her own touch. By the way, I do not see a contradiction between our claim to offer traditional meat products to the best butcher's craftsmanship as well as convenience products, because the market knows different types of consumers. On the one hand magazines and TV shows with regard to cooking are booming,

TriWeb packaging – enables vertical presentation, as well as easy labelling and stacking.

which stimulate consumers to carefully select their meat. On the other hand, there are still plenty of people who are more interested in quick and easy preparation, yet value product quality. We simply want to address both."

Online sales

With new players like Amazon Fresh, but also with existing retailers supplying this type of service more and more, online trading and home delivery of food products is increasing. Markus Bigler: „Of course we also observe this trend closely. But if you look at the food segment in Switzerland, you can see that the growth rates are comparatively low. I am sure this area is interesting for certain niche products, but meat is simply a matter of trust - and the trust of consumers must be gained by the online retailer

Full control over the cooling chain – Bigler's own trucks drive all over Switzerland on a daily basis.

Vertical presentation – the standard way in which Swiss retailers present their meat products.

first. We are currently not active online, but we will certainly adjust to the needs of our customers if necessary. As far as the future of supermarkets is concerned, they now have a great opportunity to show their added value compared to online services. They can offer consumers a true shopping experience by allowing them to see and feel every item. This is quite important for fresh products, and particularly meat. I believe the trend is moving away from megastores back towards shops that reproduce the traditional market setting in your local town square."

Sustainable packaging systems

Sustainability has long been a major issue in the packaging industry. Companies are looking for new technologies that reduce the amount of plastic in packaging, but can still guarantee food safety. Both SEALPAC and Bemis are intensively involved in research and development projects in the field of sustainability, sometimes even jointly. This recently led to a new packaging system that promises great potential. TraySkin® packaging usually consists of a plastic tray and a skin film, but nowadays there is also the possibility to use cardboard. In this new system, called FlatSkin®, a cardboard carrier is laminated with a polymeric protective layer. By means of Bemis' versatile SkinTite™ film, the product is skin packaged directly onto its flat carrier: well-protected, highly visible and with excellent appeal. After use, the polymeric layer is easily removed from the carrier to allow for separate disposal. As FlatSkin® uses a high percentage of recyclable materials, the system convinces from an ecological point of view. Furthermore, the cardboard allows for excellent printing, hence offering some unique branding opportunities.

Markus Bigler concludes: „FlatSkin® is another interesting development for our company. Whether it concerns the demand for sustainability or other trends, it is highly important for us as a food manufacturer, but also for suppliers of packaging materials and equipment, to identify the signals of consumers and to transfer them into developments. That is why we at Bigler will expand on our market research even further."

www.sealpacinternational.com

EXPERIENCE THE RANGE OF DOW'S PACKAGING SOLUTIONS AT INTERPACK 2017

INNOVATIONS FOR ENHANCED FOOD PACKAGING AND IMPROVED LOAD STABILITY AT YOUR FINGERTIPS

Dow will showcase its portfolio of world-class expertise, technologies and award-winning innovations for the packaging industry through the marketing concepts of "Fresh to Table" and "Move it Safely", demonstrating how Dow contributes to the value chain and helps meet the evolving societal needs to reduce food waste and improve load stability of transported goods.

"With one billion more mouths to feed by 2050, food is a critical resource and food preservation is essential," explains Carlos Silva Lopes, Dow's Marketing Director for Packaging & Specialty Plastics EMEA. "At Dow, we believe that flexible plastic packaging contributes decisively to address the growing need for more responsible and convenient packaging. This is what we mean by finding solutions to ensure that food is always delivered "Fresh to our Tables".

"At the same time, as societies evolve and our population grows, so does the transportation of our goods," Carlos Silva Lopes continues, "Goods that need to travel longer distances with increased requirements for safer, more efficient and more sustainable transport solutions. Dow's goal is to ensure high-performance packaging solutions are available to safely transport goods along the supply chain to the end consumer by improving pallet load stability; or in other words, our solutions to "Move it Safely". These concepts and their respective Dow packaging solutions will be on display throughout interpack for visitors and customers alike."

Delivering Ground - Breaking Innovations for Packaging

As one of the leading materials solutions provider to the packaging industry, Dow will be launching its latest innovation at interpack 2017. Visitors can expect a brand-new adhesive which will help to reduce overall packaging cost, boost recyclability and extend the shelf-life of food packaging. This will deliver a variety of benefits to converters, brand owners and consumers which will be disclosed at the show.

Roberto Rigobello, Dow's Marketing Director for Adhesives in EMEA, adds, "Visitors will be able to have a closer look at prototypes with our new technology at the Dow Boutique. The unique space will provide a dynamic, sensory experience where visitors can see and touch numerous ground-breaking packaging prototypes.

This is the ideal space for Dow customers and visitors to learn more about Dow's innovative solutions through our dedicated interactive spaces and Dow experts on site. We hope you will come and Experience the Range of Dow's Packaging Solutions at interpack 2017 join us to find out how our solutions ensure our food is delivered fresh to the table and that goods are moved safely."

Engage with us in Dow's Boutique and Business Lounge

Through its 'Face of Innovation' theme, Dow will demonstrate the latest developments in technologies and applications in packaging, as well as shine a light on what is behind every innovation – a team of world-class scientists, researchers, marketing experts and value chain partners that together result in accelerating transformative ideas into real-world solutions for customers worldwide.

Dow's Boutique can be found in the open space outside between Halls 9 and 17. The Dow Business Lounge is located in the Conference Center at the North Entrance.

Dow will also have a fully-packed program throughout the show to showcase its technologies and further engage with customers: Visitors will be able to experience a fashion show which will feature distinct and stylish garments made out of recycled plastics created by students from Southampton Solent University in the UK. In addition, Dow is hosting a student day to showcase Dow's packaging developments and engage with bright young people who are interested in pursuing a career path in packaging design. There will also be daily tours at the Dow Boutique and seminars to discuss Dow's latest technologies. Furthermore, visitors will be able to see films made from Dow's resins and adhesives on display at various stands of Original Equipment Manufacturers (OEM) thanks to Dow's OEM program, which will be running throughout this year's interpack as well.

www.faceofinnovation.com

interpack
PROCESSES AND PACKAGING LEADING TRADE FAIR
Halls 9 & 17

CAN EXTREME SHELF LIFE ALSO LOOK ATTRACTIVE?

BY KELLY WRIGHT, SENIOR SALES & MARKETING MANAGER, PREMIUMPACK

One of the most important factors in the meat and cheese industries is to protect its products from spoilage, whether on the shelf or during the journey getting there. Also important is the appearance of the product, especially in the commercial market. The combination of the two not only helps increase customer appeal but also broaden a producer's market reach. Austrian company, PREMIUMPACK, produces packaging solutions that addresses exactly these points.

The use of copolymer ethylene vinyl alcohol (EVOH) as an oxygen barrier has been a major development in the packaging world. One of the great benefits of using EVOH is that you need very little of it to create a barrier 100x stronger than standard vacuum pouches and 10x stronger than PVDC. As it is an ethylene alcohol byproduct it is environmentally safe and is susceptible to moisture. Therefore, it is essential to use a multi-layer material composition that protects EVOH from moisture from both directions, from the inside and outside of the package. PREMIUMPACK has perfected the use of water vapor barriers, therefore protecting the essential EVOH gas barrier. This unique technology advancement allowed PREMIUMPACK to introduce some the strongest shelf life oriented flexible packaging in the market, including their PREMIUMfresh (for boneless and cheese products) and PREMIUMmax (for meat with sharp bone) products.

Regarding appearance, the most attractive package for meat and cheese is one that barely looks like its there at all. It is the actual product, with its texture and color, that the consumer is interested in. Therefore, a package that looks completely transparent and gives a tight fit while featuring the actual products attributes is optimal. As EVOH is an ethylene vinyl alcohol byproduct, its use allows a flexible package to be completely transparent.

Shrink rates are also an important factor in appearance. The percentage a material can shrink

PREMIUMfresh 45 Black Tray Shrink Bag

when exposed to 80-90°C hot water or air can directly translate to how tight the package will fit around the entire product, including its edges and corners. PREMIUMPACK uses its 9-layer high barrier shrink package to its advantage by introducing multiple layers of shrinkable polyolifin for extreme shrink rates. Its PREMIUMfresh products have shrink rates of up to 50%, allowing for a tight second skin effect.

Combing all of these factors into one package, inlcuding extreme shelf life, high shrink rates and brilliant transparency, has been the focus of PREMIUMPACK's industry leading products. This year wat Interpack in Düsseldorf PREMIUMPACK will be introducing new appearance oriented high

PREMIUMmax V-shaped Shrink Bag

barrier shrink flexible packaging including the tray shrink bag (a shrink bag that gives the appearance of a tray) and the V-shape (for more triangular formed products). The meat and cheese industry will no longer need to compromise appearance to achieve their shelf life ambitions.

www.premiumpack.at

interpack PROCESSES AND PACKAGING LEADING TRADE FAIR — Hall 7 Stand C01

TSCA 160 – THE ECONOMICAL PACKAGING SOLUTION USING FLAT FILM. NOW ALSO WITH INTELLIGENT PC CONTROL.

Continuous, uninterrupted production out of the question? Think again! With the TSCA 160 automatic transfer-sealing clipping machine from Poly-clip System it can be done. Fully automatic, self-monitoring processes, the use of the more economical flat film instead of shirred casings and the combination of sealing and clipping in a single automatic machine make the TSCA 160 unbeatable.

The TSCA 160 is ideally suited to the industrial production of chubs in plastic film up to a calibre of 160 mm and at speeds of up to 160 cycles per minute in continuous mode. It offers the most up-to-date clipping and sealing technology for today's ever more rationalised production, including large calibre products.

With the TSCA 160, cash can be saved by the use of flat film which is less expensive than casings. The flat film is taken from the roll and processed by sealing to form a ready-to-fill tube, which is then filled and subsequently securely closed by the double-clipping process in the integral clipping unit. The machine will take flat film rolls up to 3,000 metres in length, which represents more than 4 hours of continuous production. No intervention or correction of the film length by the operator is required, and thus continuous, automatic production is guaranteed.

State of the art with PC control

The high degree of automation of this TSCA allows for a considerable measure of process monitoring, involving for example the parameters stored in recipe management. When irregularities occur the TSCA 160 automatically displays a warning. The operator is intuitively guided by self-explanatory pictograms through the flat menu structure of the SAFETY TOUCH panel. Another particularly operator-friendly feature lies in the first-rate, individually assignable operator control panels, used for inching mode for example. PC control also facilitates rapid and precise signal processing. On the SAFETY TOUCH display the diagnostic system provides direct and clear indication of the machine's operational status as well as analysis of both sealing unit data and filling and clipping times. The USB port for data import and export comes as standard. Also available as an optional extra is the WS Food Standard interface for operational data acquisition via the customer's own network. Automation and operator comfort guarantee even higher operational reliability and maximally efficient machine utilisation.

Economical thanks to optimum use of material

This TSCA offers once-only loading of film rather than reloading of casings up to 100 times, thus facilitating continuous production. This and the optimum use of material thanks to minimum film overlap at the seam make the machine unrivalled in its class. The TSCA 160 is capable of processing all sealable films, coated and uncoated, as well as laminates, and offers a very wide range of applications for cooked (parboiled) and pre-cooked sausages.

Even in long-term operation the machine remains quiet. State of the art noise reduction technology protects the operator and the production environment. Cleanliness, too, is paramount: the stainless steel used meets the highest hygiene requirements and ensures that the machine has a long service life. Smooth surfaces all around and a pivoting clip head make for rapid and thorough cleaning – the TSCA 160 sets hygiene standards in sausage production. The on-board technology is assured of absolutely watertight protection and will work without interruption.

The TSCA 160 may optionally be equipped with an overspreading function. In conjunction with a vacuum system, air-free filling of these large calibres is guaranteed. Air-free loose filling of shaped products with overspreading is servo-supported, just as the clip pressure setting and separator hole size, and can be stored as a product parameter. The programmable and continuously adjustable conveyor belt speed also guarantees products true to calibre.

Automation that pays off

The high level of automation of the TSCA 160 is also reflected in its machine cycle-dependent central lubrication system. Lubrication is an essential function of the machine, and automation ensures that it is no longer neglected and at the same time represents a saving in man hours. It guarantees maximum process reliability and improves the benefits of investment, since wear and tear is reduced and maintenance and downtimes are cut to a minimum. Consequently the service life of the machine is 'automatically' extended, thus increasing the value of the investment.

Furthermore, simple and reliable in-line batch marking of individual products by printing on the flat film using an integral inkjet, hot stamping or thermal transfer printer not only provides consumer-oriented product identification but also supports the first-in/first-out principle in logistics.

www.polyclip.com

interpack PROCESSES AND PACKAGING LEADING TRADE FAIR
Hall 11
Stand D39

MICVAC EXHIBITS AT INTERPACK 2017 – THE WORLD'S BIGGEST TRADE FAIR FOR THE PACKAGING INDUSTRY AND RELATED PROCESSING INDUSTRIES

Micvac is exhibiting at Interpack to meet old and new contacts. "This fair remains one of our most important occasions to show our processing method and the intelligent packaging concept that goes with it", states Christina Frohm Kramer, Marketing Director at Micvac.

Micvac is expanding over the world with new customers getting launched setting the standard for healthy and convenient food for modern consumers. The Micvac method for in-pack cooking and pasteurisation is a continuous process that allows the producer to save on time, energy, waste and costs in all steps.

Consumer studies made in different countries in Europe state that the consumer perceives the difference compared to other products in the market. This encourages producers worldwide to choose the Micvac method for their chilled products. That it's also a very waste efficient method which proves to be even more positive for the environment. There's very little waste all through the value chain starting with the production, the shop and the consumer.

The last years have also brought customers and projects not only working with single portion ready meals for the retail business, but also preparing components. "We see an increase in the demand for thermoformed products and pouches", says Håkan Pettersson, Managing Director at Micvac. "This plus our new developments with two compartment trays, round trays etc give us an even broader portfolio than at the last show."

In 2016, Micvac launched a new business segment which is in-pack cooking and pasteurisation using a combi oven. There was a demand in the food service market for safe products and Micvac offers a solution. The result is an extended shelf life combined with excellent food quality helping the large scale kitchens, restaurants etc to plan and manage their daily activities in a more efficient way.

www.micvac.com

interpack PROCESSES AND PACKAGING LEADING TRADE FAIR — Hall 10 Stand D49

Are you ready for future demands?

Minimize give-away and maximize yield

Cabinplant provides a number of solutions for cost-efficient processing, weighing, filling and packing for for fresh and processed foods.

Supplying the food industry for decades

Throughout the years, Cabinplant has supplied more than 5,000 installations to customers around the world. That is evidence of our proven performance, and it reflects why we are one of the market leaders within food processing solutions.

Interested?

Let us talk at the **INTERPACK 2017 4-10 May Hall 5 stand no. G19.**

Cabinplant®

Visit cabinplant.com

X-RAY TECHNOLOGY FOR THE INSPECTION OF PACKED PRODUCTS

RAYCON EX1 ENTRY-LEVEL X-RAY INSPECTION SYSTEM

Sesotec is one of the world's leading manufacturers of machines and systems for contaminant detection and product sorting. At this year's interpack 2017 the RAYCON D product inspection system is one of the trade fair highlights presented by Sesotec GmbH at stand A90 in hall 13. This focus reflects the current market development: Manufacturers in the packing industry increasingly rely on X-ray technology to professionally meet growing consumer expectations and increasing statutory requirements relating to product safety.

Sesotec's RAYCON D product inspection system primarily is used for the final inspection of packed products and allows high-precision inline detection of a large variety of contaminants such as magnetic and non-magnetic metals, glass, ceramics, stones, raw bones, and several types of plastics. RAYCON D combines proven Sesotec X-ray technology with hygienic design and ease of operation. With respect to hygienic design, the conveyor belt in the RAYCON D system can be replaced within two minutes by only one operator. The modular technology platform of the

RAYCON product inspection system in the version with large front door for quick belt replacement.

RAYCON D allows universal applications that go beyond standard requirements, e.g. high-resolution, high-speed or high-density inspection.

Entry-level X-ray model

For customers who are interested in easy-to-use and low-cost entry-level equipment for X-ray inspection, Sesotec presents the new RAYCON EX1 model. This system is especially suited for the "end of line" inspection of packed products with maximally 200 millimetres width and 120 millimetres height.

With its minimal installation length of only 800 millimetres and Ethernet connection the RAYCON EX1 system can be easily integrated in existing packing lines. Due to "low-energy" X-ray technology the system lastingly contributes to efficient and eco-friendly operation and at the same time provides high detection accuracy for contaminations such as stainless steel, glass, or stones starting from a size of 0.6 millimetres. The system features easy integration, operation, maintenance, and cleaning.

Sesotec product inspection systems are "ready for Industry 4.0" and can be networked with other plant components, which increases the total efficiency, quality and flexibility of production.

www.sesotec.com

interpack PROCESSES AND PACKAGING LEADING TRADE FAIR — Hall 13 Stand A90

GEA PACKAGING EQUIPMENT

AT INTERPACK 2017 HELPS TURN IDEAS INTO REALITIES

Rendering of GEA Stand B09/B31 in hall 7a at Interpack 2017

GEA DeltaPak

GEA PowerPak with PowerGuide and EasyCheck

GEA has designed its processing solutions to match the trends of the times – for a highly regulated industrial sector, for highly sensitive package contents, and for highly critical consumers. These solutions support manufacturers in realizing ever more reliable, flexible, efficient, and imaginative packaging. New developments will include an entry-level thermoformer model and an ultra-hygienic vertical bagger system. One highlight at the fair will be a revolutionary non-destructive quality control system for modified-atmosphere packaging (MAP) – the extraordinary GEA response to the questions as to how we can prevent food waste.

Getting started

One of the headliners is a new thermoformer configuration developed as a basic machine with restricted functionality. The entry-level GEA DeltaPak provides access for smaller-scale packaging operations to the quality and reliability of the proven GEA PowerPak platform. It is part of the recently re-defined GEA PowerPak range, which makes specifying a thermoformer for a particular application much easier and

more cost-effective by omitting functions that are not required.

Moving up to large - scale operations

PowerPak presentation will also feature an integrated slicing/ packaging line for larger-scale operations. The line includes an OptiScan, a pre-scanning system to minimize give-away and increase the yield of sliced portions, a DualSlicer 1200 with Interleaver and Check 4000 weigher designed to slice raw ham, and a ShingleLoader to load portions automatically into the PowerPak packaging unit. This thermoformer is fitted with a new labeler, end-of-line lane convergers, and a revolutionary new, non-destructive quality control system for MAP packaging. For vertical bagging users, there will be two continuous-operation SmartPackers, a CX250 with a multi-head weigher, and a CX400 that meets the highest hygiene standards.

GEA SmartPacker CX400

GEA DualSlicer 1200

GEA Service – For your continued success

Tailor-made service addressing the customers' needs help to maintain and even improve the performance of packaging technology in the long run. With several options out of the new service concept "GEA Service – For your continued success" GEA supports customers throughout the entire life cycle of their installed systems and components – from project engineering, installation, and commissioning to production. There will likewise be an information desk on the GEA stand at Interpack, where customer service personnel will be available to provide more info on the recently introduced customer-care concept. **www.gea.com**

interpack PROCESSES AND PACKAGING LEADING TRADE FAIR

Hall 7A Stand B09/B31

With incidents of **serious foreign body contamination** on the increase, Loma is innovating with retailers and manufacturers to deliver the **latest technologies** to improve **food safety** and quality.

An X5 Spacesaver X-Ray Inspection System detects metal, glass and bone on packaged chicken fillets

Come and meet our team at Interpack and learn more about Loma's robust, flexible and friendly inspection systems

LOMA SYSTEMS

YOUR PARTNER in Product Inspection Systems
www.loma.com/l/interpack2017

ANRITSU DETECTING SUCCESS WITH SAFETY SOLUTIONS AT INTERPACK

Award-winning supplier of safety solutions, Anritsu Infivis Ltd, will be on hand at Interpack in Dusseldorf showcasing its full range of cutting-edge X-ray, metal detection and checkweigher systems, designed to help safeguard the integrity of food and pharmaceutical products.

Protecting consumers from contaminants in the food chain, and ensuring the accurate distribution of medical products, is paramount for both the retailer and supplier alike – finding the smallest foreign body in food can be seriously damaging both financially and to a company's reputation.

At the exhibition in Germany, Anritsu will be demonstrating the XR75 Series of X-ray Inspection Systems, in tandem with the SSV Checkweigher, on a recirculating conveyor to highlight this exceptionally versatile and robust, food safety technology that has a proven track record of detecting contaminants in a wide range of packaged goods.

The ultra-sensitive XR75 X-ray Inspection System can also identify product shape defects and packaging integrity, while reducing the lifetime cost of ownership by over 20% compared to other systems, thanks to Anritsu's Advanced Long Life Technology which incorporates low power design and longer equipment life. The XR75 provides the best contamination detection levels in the industry, is easy to use and is also easy to clean.

Sharing the spotlight with the XR75 is the versatile SSV Checkweigher Series, among the most advanced food weighing equipment of its type in the world, boasting innovative signal processing, multi-threaded filtering and improved scale resolution, to minimise 'double product errors'.

Anritsu will also be promoting the M5 Metal Detector, as standalone equipment and as part of a combination unit with a Checkweigher, incorporating flipper reject. There will also be software on show for data capturing and production analysis.

Anritsu's technical team at Interpack will provide information on all its range of safety solutions. Eddie Daniels, the company's UK Sales Manager, said: "Interpack offers us the perfect platform to demonstrate the highest quality detection systems available on the market. Anritsu's equipment is tried and tested for ensuring the safety of food and pharmaceuticals."

X-ray inspection systems supplied by Anritsu are renowned for satisfying every regulatory

safety standard around the world. Its UltraHD technology can detect down to 0.2mm diameter ferrous, non-ferrous and stainless steel sphere at production line speeds. Anritsu's ability to detect contaminants with high accuracy, sensitivity and repeatability is unmatched in the industry.

Anritsu designs and develops all its products in-house to support every solution with 100% confidence. Its food and pharmaceutical safety solutions have earned global recognition for their outstanding performance, capability and credibility.

www.allottandassociates.co.uk

interpack PROCESSES AND PACKAGING LEADING TRADE FAIR — Hall 12 Stand A52

LESS HARD WORK ON THE SAUSAGE PACKING LINE

WITH AN AUTOMATED SOLUTION FROM CABINPLANT, THE FUTURE OF SAUSAGE PACKING IS FLEXIBLE, GENTLE AND PRECISE. THE SOLUTION WILL BE ON DISPLAY AT INTERPACK 2017.

Tales of manufacturers that pay to transport workers to their factory are well known in the food industry. Faced with a shortage of labour and rising labour costs, opportunities for automated packaging are increasingly attractive to many.

"We know that the standard of living is going up in many parts of the world. This makes it less attractive to work on the shop floor in a food factory," says Morten Dissing, area sales manager at Cabinplant, a leading supplier of food processing and packing solutions.

"It was this that inspired us to develop our automated sausage depositor."

Sausage packing has traditionally been carried out on highly labour-intensive machines, where operators ensure sausages are arranged in orderly layers ready for packaging. The Cabinplant sausage depositor takes over this role, quickly adapting to a wide variety of sausage and pack sizes.

Future-secure flexibility

In the sausage business, such flexibility is a key word. This is why each Cabinplant solution is sold with a series of depositor tools to cater for present and future packaging needs.

"Our design means it takes less than 15 minutes to change over to a new sausage type or pack size, so there is very little production downtime. One operator can easily manage the task," Dissing explains.

Reducing damage and give-away

For manufacturers, gentle handling is essential to minimise product damage on the line and rework. Another key issue is

'give-away' – the extra grams of product that manufacturers allow in each pack to ensure the actual weight is never below the weight stated on the pack label.

The Cabinplant sausage depositor overcomes these challenges through two exclusive features.

One is the vibrating action used to transport and align sausages on the machine. While conventional mechanical conveyors cause up to 5% product damage, this is virtually eliminated by the vibrating mechanism.

Optimising pack weight

The other is the multi-head weighing machine that not only ensures the right number of sausages in each packaging, but also accounts for small variations in the weight of each sausage. In this way, sausages are selected from the weighing channels and combined in portions of optimum weight.

"Through the use of an accurate weighing system, the average sausage weight can be reduced without risk of failing to meet the stated pack weight," says Dissing.

He gives a real-life example.
"If the average weight is reduced by, say, 1.5g per sausage, then give-away for a pack of six is reduced by 9g. Over a year, the total product saving is close to 300 tonnes."

In other words, 300 tonnes are no longer given away for free.

Capacity – a positive surprise

Cabinplant project manager Allan Hansen Nissen has focused on developing an adaptable, layout-friendly solution that can satisfy most customers' needs for a tailor-made solution. In his experience, customers are positively surprised by the high efficiency and throughput compared to the number of operators on the line.

"Most sausage manufacturers talk about capacity in terms of kilos per hour. Our system can achieve a similar capacity to traditional labour-intensive lines – in some applications, even higher. And they need only a few operators to run at this high capacity," he comments.

With less downtime, give-away and waste on the line, manufacturers can look forward to a flexible and future-proof sausage-packing operation with a fast return on investment. That's an automation opportunity worth exploring.

www.cabinplant.com

interpack PROCESSES AND PACKAGING LEADING TRADE FAIR — Hall 5 Stand 5G19

WORLDWIDE. BY YOUR SIDE.

Weber shows innovations and service in slicing, automation and derinding at Interpack 2017 in Düsseldorf. „Worldwide. By your side" – visitors will be informed about innovative technology, flexible solutions for various applications and service food processing companies worldwide can benefit from. Proximity to customers and global acting as well – this is the slogan of the company from Breidenbach/Germany.

At Interpack Weber presents the new Weber Shuttle System - first shown in 2016 – in a ready meal production line. This high flexible concept of automation is suitable from simple entry solutions to high-end lines for complex infrastructures. Further the winner of the iF Design Award 2017, Weber slicer S6, will be shown in Düsseldorf in combination with the new and compact infeeder Weber CCA500.

At Interpack 2017 Weber und Textor will be present at one booth for the first time.

www.weberweb.com

interpack PROCESSES AND PACKAGING LEADING TRADE FAIR — Hall 5 Stand B23

Międzynarodowe Targi Poznańskie
Poznań International Fair

INTERNATIONAL TRADE FAIR OF FOOD PROCESSING TECHNOLOGIES
POLAGRA·TECH
• Meat and Fish Technologies Exhibition
• Food Processing Technologies Exhibition

pakfood
FOOD INDUSTRY PACKAGING FAIR

25-28.09.2017, POZNAŃ, POLAND

www.polagra-tech.pl/en • www.pakfood.pl/en

ISHIDA TO DEMONSTRATE PACKING SOLUTIONS VERSATILITY

Ishida Grader

The extensive range of weighing, packing and inspection solutions on show from Ishida at this year's Interpack will underline the company' ability to design, manufacture and install comprehensive, best-in-class packing line solutions, tailored to the precise needs of individual customers for a wide variety of markets and applications.

Four dedicated "solutions areas" of the stand will feature Ishida's latest developments in weighing systems, inspection technology, and complete snacks packing and fresh food automation solutions. In addition, each area will showcase Ishida's newest advances in remote line monitoring (Sentinel™), data capture and efficiency management (IDCS) and enhanced training software (Ishida Expert).

Highlights include the company's newly-launched advanced X-ray inspection and leak detection models; multihead weighers showcasing the breadth of the Ishida offering, from high-head multi-mix to specialist and niche designs for fresh sticky products, ultra-low target weight applications and gentle handling solutions; the latest developments in integrated snacks packing systems; a unique salad tray packing solution; and advanced grading solutions for poultry and fish.

On show in the Inspection area of the stand, Ishida's new IX series X-ray range raises the bar in performance and usability, offering customers easy maintenance, stress-free operation, and a robust fail safe system that prevents a contaminated product reaching the consumer to minimise the potential for costly recalls.

The full model range will be shown at Interpack, including entry-level, mid-range and premium specification models that demonstrate their flexibility to handle many different inspection tasks.

Two of the models will also be demonstrated working with Ishida's unique AirScan leak detector, which uses advanced laser technology to detect the smallest leaks in in MAP packs which contain Carbon Dioxide.

Airscan Leek Detection

In the Weighing area, Ishida will show a variety of models including compact versions ideal for high-value, low-target weight applications or where factory space is at a premium, and a high-head 32 head version, capable of handling single product at extremely fast speeds or up to eight different products for discharge into the same pack. Other highlights include its specialist Fresh Food and Screw Feeder Weighers for sticky products such as meat, poultry, cut fruit and ready meals.

The software solutions on display throughout the stand are designed to help companies operate and manage their lines to maximum performance and efficiency, for a fast return on investment. Ishida Sentinel™ is a unique remote customer care solution that combines machine performance monitoring with comprehensive data capture and in-depth analysis. Ishida Data Capture System (IDCS) is a powerful software tool that captures the data from every pack that passes across Ishida checkweighers to generate real-time displays and reports. Ishida Expert is an interactive computer-based training programme for multihead weighers and checkweighers.

www.ishidaeurope.com

Ishida Flex Grader

interpack PROCESSES AND PACKAGING LEADING TRADE FAIR

Hall 15
Stands
15A25 & 15A26

HOW TO FIND THE BEST USTOMIZED VACUUM PACKAGING

THE BOCHUM LOCATED FAMILY BUSINESS WEBOMATIC0, A RELIABLE PRODUCER OF VACUUM PACKAGING MACHINES SINCE 1958, SUPPORTS CLIENTS AT INTERPACK TO FIND THEIR INDIVIDUAL PACKAGING SOLUTIONS

Smart packaging solutions with little process costs, best hygiene and high efficiency are requested in all areas - for craft, trade, and industry and in food and non-food businesses. No matter if standard requirements for pouches in laboratories or craft meat manufacturers, whether tray packaging for popular or unusual tray sizes for retailers or even highly individualized thermoforming packaging are requested, WEBOMATIC provides flexible, service-friendly and reliable packaging solutions.

Webo TL 250

Especially if high versatility is requested, the semi-automatic tray sealer TL 250 convinces through flexibility in tray formats and simple film change for small to medium charges. The robust, German machine quality is visible in the design, and the integrated PLC control unit allows transparent data analysis.

Additionally, a new automatic tray sealer with skin and MAP on the same die set will be introduced at Interpack, that is easily integrated into packaging lines for medium to high capacities.

www.webomatic.de

interpack PROCESSES AND PACKAGING LEADING TRADE FAIR — Hall 5 Stand B37

ML-C 5600

The high-capacity all-round thermoforming machine ML-C 5600 can be smoothly integrated into automated packaging lines for medium to high capacity. Even demanding premium skin-packaging, that stand out at the POS, are easily produced with the ML-C 5600-skin version.

Webo tank ST 40

With the combination of the vacuum chamber machine SuperMax I and the manual shrink tank ST 40 a small and convenient shrinking line for excellent shrunk pouches will be presented for small to medium charges. An operator places one or more packed and sealed bags on the immersion platform and triggers the immersion process so that the bag is shortly dipped into the hot water causing the pouch material to cling tightly and esthetically to the product.

NEW COLLATING SYSTEM FOR FRESH SAUSAGE IS THE HIGHLIGHT FROM HANDTMANN AT INTERPACK

At interpack, Handtmann will exhibit integrative solutions, from the portioning process to the packaging solution. The highlight is a new collating system with fresh sausage collating, feeding and depositing directly into trays.

Collating systems by Handtmann are an effective turnkey solution for the automatic depositing of ConPro sausages or of fresh sausages in natural or collagen casing into trays or thermo-forming machines. These automation solutions provide a significant rationalisation effect. This complete solution for the automatic depositing of fresh products into trays will be demonstrated live on the Handtmann stand. The innovation comprises the new VF 800 vacuum filler with inline grinding system, a PVLS 143

VF 800 with GS 300 collating system

AL cutting line, the new GS 300 collating system, a feed belt for trays and an Intray tray denester.

The basis for reliable synchronisation of several process steps is the control system in the Handtmann machines. It controls, monitors and links complex systems, and thus facilitates successful automation in all its diversity: from the portioning process to collating, gripping, feeding and depositing the products in the packaging. Systems from Handtmann ensure 100 % process reliability in conjunction with packaging machines, such as thermo-forming machines or tray sealing units. In addition to these automation options, the company will also demonstrate how Industry 4.0 is implemented at Handtmann – with Handtmann HCU software for effective production networking.

www.handtmann.de

interpack PROCESSES AND PACKAGING LEADING TRADE FAIR — Hall 5 Stand C38

EXTREMELY HIGH CAPACITY COMBINED WITH CONTINUOUS PRECISION

NEW GENERATION OF TREIF PRECISION PORTION CUTTING MACHINES: FALCON EVOLUTION

The new generation of TREIF precision portion cutting machines offers high-speed cutting with an extremely high capacity and continuously reliable precision. The industry machine FALCON evolution will be presented for the first time at Interpack.

Based on nearly twenty years of experience in the area of cutting portions precisely to a prescribed weight, TREIF developed the FALCON evolution which, compared to its previous model FALCON hybrid+, achieves a massive increase in performance.

FALCON evolution adopts the well-tried technologies of FALCON hybrid+ which is already established on the market and can also be seen at Interpack. FALCON evolution cuts products with or without bones into slices with a specified weight or slice thickness in a yield-optimised manner.

The new generation of the TREIF FALCON family owes its extremely high speed in particular to the far-sighted optimisation of single processes.

FALCON evolution is future-oriented due to its ease of use. The operation of the machine is self-explanatory and clear, and stands out for its high degree of user-friendliness.

Thanks to the open design, the FALCON evolution is also convincing in terms of hygiene. Weight reduction of the accessories significantly facilitates the operator's work.

The 4D camera system, which completely measures the product before cutting, is the basis for the yield-optimised cutting and the precision. The driven, contour-controlled TREIF down holder, together with the product gripper, is an important component in regard to the precision, which provides a high degree of stability for the product during cutting. Thanks to highly modern technologies, the blades are guided along the product contours.

At Interpack, the FALCON evolution is combined with innovative robot technologies which withstand the high output of the machine. The slices are processed using a fully automated sorting and filling method, e.g. into discount supermarket packaging. Portion cutting machine and robot system combined form the POWERLINE.

In a harmonious process operation with continuous product flow and efficient work processes, products with or without bones are sliced to a specified weight or slice thickness with a nearly 100 % yield rate, then sorted and filled.

www.treif.de

interpack PROCESSES AND PACKAGING LEADING TRADE FAIR — Hall 5 Stand B03

SEALPAC AT INTERPACK 2017: INNOVATIVE SKIN PACKAGING, SAVING FOOD WITH PERFOLID, SERVO PLUS DRIVE

At the SEALPAC stand C19 in hall 5, focus will be on solutions that address the trend towards skin packaging, as well as on traysealers and thermoformers that convince due to their output, flexibility and durability. With its PerfoLid system, a unique solution for fresh fruits and vegetables, the packaging specialist will this time also be represented at Innovationparc Packaging SAVE FOOD, stand IPP19.

TraySkin® – now also available for two-compartment trays

More freshness, improved quality and prolonged shelf life – those are the benefits for products packaged under vacuum with SEALPAC's TraySkin® system. In this process, the food products are packaged directly inside their tray with a highly transparent barrier skin film. The secure fixation of the product always ensures a perfect appearance, even if presented vertically (e.g. standing or hanging). A recent development concerns the use of two-compartment skin trays, where each compartment, for example containing single portions of meat, is sealed individually. Sealing takes place by means of SEALPAC's unique OnTrayCut system, which was specifically developed for skin applications. This guarantees an immaculate presentation at retail. During Interpack 2017, the German company will demonstrate its TraySkin® system on a SEALPAC A6 traysealer. This machine is ideal for medium-output applications that require highest flexibility, such as cold and hot filling, MAP or skin applications. Its unique tooling quick exchange system, common to all A-series traysealers, allows for fast changeovers to other packaging systems or tray sizes.

Two-compartment skin tray
Each compartment is sealed individually using SEALPAC's unique TraySkin® system with OnTrayCut.

SEALPAC A10 traysealer – maintenance-free due to servo plus

With its A10, SEALPAC will be demonstrating a traysealer that is perfectly tuned to high-volume production lines that require maximum output. It easily handles all sealable materials and, either in single or double lane execution, fully automatically seals up to 160 trays per minute (depending on tray format and application). This makes the A10 an ideal solution for price-sensitive products, such as minced meat, where packaging performance is decisive for the overall price and therefore the competitiveness of the product. SEALPAC has now further optimized the drive concept of its high-performance traysealers by means of servo plus. This allows the SEALPAC A10, often the centre-piece of high-performance lines that run most of the day, to offer its users the highest degree of process security. The new servo drive does not contain any corrosive mechanical parts, such as a toothed belt or spindle, and is therefore particularly low in wear and tear. This leads to significantly longer maintenance cycles, hence saving time and money.

SEALPAC A10 traysealer
The new servo plus system allows for highest outputs, yet smoothest production runs.

SEALPAC PRO14 thermoformer – flexibility in thermoforming

The all-in-one SEALPAC PRO14 thermoformer can handle a wide range of applications, such as cost-efficient flexible film vacuum packaging, rigid film modified atmosphere packaging, as well as shrink packaging. The optional quick exchange system from the side allows for easy product changes with minimum downtime. Combined with SEALPAC's energy-efficient Rapid Air Forming system, optimal forming consistency is achieved. This results in higher outputs due to shorter vacuum and ventilation times, as well as the possibility to use up to 10% thinner materials. At Interpack 2017, for the first time, the PRO14 will be presented with maintenance-free, servo-driven lifting systems, hence making your PRO-series thermoformer even more efficient.

SEALPAC PRO14 thermoformer
The all-in-one solution with quick exchange system from the side allows you to run various applications.

www.sealpacinternational.com

interpack PROCESSES AND PACKAGING LEADING TRADE FAIR — Hall 5 Stand C19

DIGITIZE PACKAGING:

BIZERBA AT INTERPACK 2017

Bizerba introduces solutions around the topics of digital transformation, food safety, batch size 1, logistics and labels at this year's Interpack trade show.

Many companies use digitization as a means to increase productivity and lower their costs. Predictive maintenance with its underlying software plays an essential role in this context. Solutions presented at the trade show include the Bizerba Cloud Platform based on MS Azure, the GLM-levo price and product labeling system, and the BRAIN2 industrial software including the necessary sensing equipment for connection to the software.

Digitization, Predictive Maintenance, OEE

With predictive maintenance, digitization offers new opportunities in the service segment as well: machine data acquired by the sensors are used to generate a cloud-based virtual representation of the equipment, accompanied by a real-time analysis of the data. Thus, any weak points or defective components can be detected at an early stage, and the service team can be notified by the equipment.

At the show, Bizerba will build a control center to demonstrate its solution portfolio surrounding digitization and predictive maintenance. Machines at the booth will be connected to machines in the showroom at the company's Balingen headquarters in order to demonstrate the integration and commissioning of machines at remote locations including the simulation of disturbing influences. Possible error messages will be shown along with overall equipment effectiveness (OEE) or label inventory using plug-in systems on the dashboard at the booth.

Food Safety Comes First

Food recall campaigns are costly and have a negative impact on brand reputation in the worst case. Against this backdrop, Bizerba will demonstrate the reasons for recall campaigns along with potential consequences and solutions at Interpack show. Different inspection systems for detecting metal, plastic or glass will also be on display. In addition, camera systems will check if correct labels with correct content are placed at the correct spot.

Sealed-seam control is also a theme at this year's Interpack show, with a special focus on detecting any contaminations, seam quality and possible inclusions like air bubbles. Demonstrations using specially prepared packages will demonstrate which devices are suited for detecting different defects.

Batch Size 1 and Filling Systems

Online ordering results in new challenges for industrial production lines especially in the fresh-food sector. In this area, Bizerba provides different food-labeling approaches that can be used to label products in an individual, safe and traceable manner even in fully-automatic production processes.

Food tailored to the needs of a specific customer is becoming increasingly popular. With its smartly connected hardware and software solutions, Bizerba supports flexible, efficient 'batch size 1' production.

Logistics and Labels

A packing table and a roller conveyor will be on display at the show to demonstrate a packing process with individual commissioning of customer orders. Various load receptors and terminals for package weighing and labeling will also be included.

Transparent thermal labels providing a better view of the packaged product will be the highlight in the label sector. Furthermore, multi-layer labels meeting the demand to fit more information on a small area as well as RF labels acting as an anti-theft measure are additional key topics of this years' presentation.

Current trends including industry 4.0, Internet of Things, predictive maintenance, the interaction of multiple systems as well as availability and services are all part of Bizerba's solution portfolio, which will be reflected by new, individually configurable service packages. Customers can configure their service offering according to their individual requirements within 'My Bizerba'. In addition, Bizerba provides the flexibility to provide a per-use charge approach instead of purchasing hardware and software in the future, enabling customers to select their own portfolio consisting of availability, maintenance and lifecycle management.

www.bizerba.com

interpack PROCESSES AND PACKAGING LEADING TRADE FAIR

Hall 14
Stand B14

SANDVIK TO HIGHLIGHT HYGIENE AND COST BENEFITS OF STEEL BELT CONVEYING

Sandvik steel belt conveyor at meat processing facility

Sandvik, the worlds' largest producer of stainless steel belts, will use Interpack 2017 to highlight the hygienic benefits of its conveying technology in the meat processing environment.

The company will showcase the advantages of steel belt conveying through its latest free standing conveyor design. Key features include an endless steel belt with no visible joint, easy to clean stainless steel frame, open design for easy access, and IP65 standard protection on gear motors for cleaning by sprayed water.

Sandvik's stainless steel conveyors have been at the heart of meat cutting and deboning operations for almost 60 years, the completely flat surface of the belt ensuring that there is nowhere for bacteria to collect and breed.

As a flat, smooth, hard and inert conveying medium, steel belts can be cleaned and sanitised using heat, pressure, brushes, detergents or chemicals. Quick and easy cleaning offers a number of other benefits too. Low water consumption and reduced use of cleaning chemicals or detergents means lower costs and less impact on the environment, while faster cleaning results in less downtime.

While meat conveying will be the main focus of the stand, Sandvik will also highlight applications for its belts in other areas of meat processing – including freezing – and across the broader food industry where its versatile products are used for everything from baking and cooking to steaming and drying.

www.sandvik.com

interpack PROCESSES AND PACKAGING LEADING TRADE FAIR — Hall 3 Stand F44

PACKED WITH INSPIRATION

AN INTERPACK STAND PACKED WITH INSPIRING MACHINES

Inspiration is the source of innovation. And innovation – from food producers as well as machine manufacturers – is a powerful means of creating differentiation and improving profitability. This is why GEA has 'Packed with inspiration' as its theme for the company's stand at Interpack 2017. The systems for packaging and processing of food beverages featured on the stand show how GEA's product development is inspired by market trends and customer requirements. In response to today's regulated business environment where retailers and consumers place high demands, GEA delivers reliable, flexible, efficient, and imaginative packaging.

World premier

New developments include an entry-level thermoformer model, an ultra-hygienic vertical bagger system. But perhaps the main show stopper is GEA OxyCheck, a non-invasive quality control system for modified-atmosphere packaging (MAP), the only system that checks every pack for oxygen content as it leaves the thermoformer.

From entry-level to high-end packaging

The GEA PowerPak platform is well established in the mid- to high-end sector thanks to its reliability, capacity and range of configuration and options. However, smaller-scale operations, such as start-ups, often don't need all the features of these big thermoformers.

For these users, GEA has introduced an entry-level thermoformer with basic configuration and functionality. Called the GEA DeltaPak, it provides access to the quality and reliability of the GEA PowerPak platform. Moving up the PowerPak range, which was recently re-defined to make it easier and more cost-effective to specify a thermoformer for a particular application, one of the

GEA PowerPak with Powerguide and EasyCheck

larger machines is on the stand as part of an integrated slicing/packaging line. This thermoformer is equipped with tool-free dieset changing, a new labeler and end-of-line lane pick and place converger plus the new GEA OxyCheck, the world's first 100 percent quality control system for MAP packaging.

More confidence, less waste

Integrated on the GEA PowerPak, GEA OxyCheck is a non-invasive, in-line quality control system, which means that the film and seal remain intact and nothing is wasted. The technology (patents pending) accurately measures the O2 content inside MAP packs, and unlike invasive measurement techniques that only inspect samples periodically taken from the line, the GEA OxyCheck inspects every single package during production. The system features a sensor spot printed on the inner, product-facing side of the film. Sensors look at the fluorescence properties of a dye in this spot, which is influenced by the presence of O2, making it possible to accurately determine the concentration without breaking the film or seal. Packages that don't meet modified atmosphere specifications do not enter the supply chain. A single package in which the contents prematurely deteriorate could lead to a retailer rejecting a whole batch to prevent unsafe food reaching the consumer. The potential recall costs can be substantial.

A cut above the rest

The automated line starts with a GEA OptiScan, an X-ray pre-scanning system for simultaneously scanning of two logs, which minimizes give-away and increases yield especially for products with diverse density distribution. Slicing is done with the GEA DualSlicer 1200,

GEA DualSlicer

which in combination with a new, two-lane Interleaver, a Check 4000 and a ShingleLoader 600 delivers perfect portions to the PowerPak. To be able to adjust slice thickness on the fly – and therefore get fewer idle cuts – this second generation GEA DualSlicer has independent drives for each of its two grippers, an adjustable rotor head and a three-stage-portioning conveyor. This line configuration achieves perfect slicing quality as well as very high product utilization due to low give-away and more on-weight portions.

Let's bag it up

For vertical bagging users, there are two continuous-operation SmartPackers, a CX250 with a multi-head weigher, and a CX400 that meets the highest hygiene standards. These machines can handle the latest stand-up packaging formats – including Quatro seal and Doystyle – to ensure products not only stand up on the shelves, but stand out too. And thanks to the intelligent product-in-seal detection system, which prevents the sealing jaws closing on a product in the seal area, there's no need for unplanned stops for cleaning.

Hygiene upgrade

The SmartPacker CX400 is a best-seller for many food applications, and is now available with an upgrade to meet very tough hygiene requirements. The main differences are the stainless film feed and sealed bearing rollers plus ultra-smooth surface treatment and sloping surfaces to avoid contamination. The vacuum table is replaced by a closed clamping table, preventing dirt getting in the vacuum system. It meets hygiene standards for fresh vegetables, meat and potato products, and individually quick frozen (IQF) protein products.

www.gea.com

interpack PROCESSES AND PACKAGING LEADING TRADE FAIR
Hall 7A
Stand
B09 / B31

LOMA SYSTEMS® TO SHOW 'DESIGNED TO SURVIVE' INSPECTION EQUIPMENT FOR THE FOOD & PHARMACEUTICAL INDUSTRIES

INCLUDING NEXT-GENERATION IQ4 METAL DETECTOR SERIES AND FACTORY-FRIENDLY X-RAY INSPECTION UNITS FOR FIRST TIME # USERS AND PACKAGED, BULK, LOOSE AND PUMPED PRODUCTS

Loma Systems® will be showing a wide range of Designed to Survive® contaminant inspection equipment for the food and pharmaceutical industries at Interpack 2017. This includes the introduction of its exciting next-generation IQ4 metal detection technology, which has been specially designed to meet common inspection challenges and provide many customer benefits based around robustness, performance, usability, quality and flexibility. The company will

be highlighting its durable, flexible and factory-friendly X-ray contaminant inspection solutions, which are the choice of many food producers around the world. Offering low lifetime cost of ownership, the compact X5C X-ray inspection system is aimed at first time users whilst the X5 combination (Combo) X-ray and Checkweighing unit ensures compliance with retailers' codes of practice and average weight legislation.

A Lock PH Pharmaceutical Metal Detector and TRACS, an advanced data management and reporting tool for helping plants better understand product inspection performance and trends, will also be featured on stand. Loma's technical and application experts will be available to answer questions and discuss individual requirements.

Loma's X5C X-ray inspection unit reduces the cost of ownership of X-ray technology by 30% when compared to the company's other models, making it ideal for food companies keen to make the switch to x-ray for the first time. It offers high quality contaminant inspection using a reduced number of well-proven subcomponents and compact design and can detect glass, calcified bone, rubber, stone as well as ferrous and non-ferrous metals, and stainless steel.

Capable of handling products up to 100mm (height) and 300mm (width) but weighing no more than 3kg, the X5C is particularly ideal for the inspection of ready meals, small packaged goods and convenience food.

To help comply with CFR21 part 11, Loma's compact X5C is multilevel password protected for improved data management allowing the system to log events against individual operators. Produced from brushed stainless steel, Loma's X5C X-ray unit also offers an ultra-hygienic design for easy cleaning and low maintenance and serviceability.

Loma's combined X5 X-ray and CW3 Combo inspection system is capable of weighing products while simultaneously inspecting for foreign bodies, all in one integrated system.

www.loma.com

interpack PROCESSES AND PACKAGING LEADING TRADE FAIR — Hall 17 Stand B46

We are your reliable partner for steel belts when it comes to continuous production or transportation in the meat industry. We can provide you with complete solutions, no matter if you need steel belts or machine parts.

Your advantages:
- **Continuous production**
- **Higher output**
- **Various processes possible**
- **Unique product quality**
- **Perfect tracking**

Austrian quality

interpack PROCESSES AND PACKAGING LEADING TRADE FAIR
Hall 4
Booth C39

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IMPOSSIBLE IS POSSIBLE

By Henk Hoogenkamp

* Brand owners of plant meat foods find themselves often in temptation when looking how to grow volumes by moving the brand from its core vegetarian customers to the rapidly growing number of flexitarians who are cutting down on meat for health or emotional reasons.

* Companies such as Impossible Foods, Beyond Meat (US), Gardein (Canada) and Quorn (UK) are often "owned" by their core customers and the loyalty these people give their most favorite brand must be equally respected by the brand owners. This is a difficult pathway to navigate and needs careful strategic balancing in order not to upset the original consumer base.

* Impossible Foods has received funding and support from among others Bill Gates, Google Ventures and Khosla Capital.

* Tyson Foods has taken a minority participation in Beyond Meat.

Although this Burger seems perfectly cooked, it is sub-standard. The Impossible Burger - is cooked at too high grill temperatures - creating a typical "plant protein crust" while inside of the patty remains undercooked".

The solution is to cook at lower temperatures and extended time.

Impossible Foods name to fame has been the successful creation of "plant blood". This liquid makes a meatfree burger not only looking like raw ground beef, but also bleeds on the grill similarly as the all-time American iconic burger. A rapidly growing number of select US restaurants now serve these plant meat foods that originate from world's technology hub Silicon Valley in California.

Plant meat foods are not only the opposite of the misery of industrial animal harvesting, but also to the invisible use of growth hormones, antibiotics, greenhouse gases, chemical fertilizers and clean water. It is estimated that about one-third of the land on planet Earth is used to raise livestock and grow its feed in order to keep the intensive animal production output afloat. All in all, predictions are gaining momentum that plant meat products use about 95 percent less resources than traditional farm-raised livestock.

Industrial scale feedlot meat production is probably the world's largest environmental problem. Reducing meat consumption will free up vast amounts of land, water and alleviate the suffering of billions of animals. Ultimately, lower commodity costs of plant-origin food, including plant meat products, will contribute to a long stretch of food-price deflation when compared to the animal meat equivalent.

Flexitarians Going Forward

Vegetarianism appeals to surprisingly few people –just 2 percent. The true growth of meat substitutes or plant meat foods comes from flexitarians. This group consciously eliminates or reduces animal meat from their daily line-up of food and plan meatless days a few times each week.

Flexitarians are a rapid growing consumer segment aiming for transformative change, albeit often driven by psychologically inclined aspects associated with animal welfare, health and wellbeing. Also an important variable to consider is the reduction of red meat consumption such as beef and is mainly driven by young girls going through puberty.

A Challenge To Replace

Meat happens to be incredibly tasty and nutritious and perhaps the only way to beat it is to develop a superior plant-based product that is at least equally good in organoleptic performance.

Beef is generally considered the worst part of the meat pyramid because of its inefficient feed-to-meat conversion and the use of huge amounts of clean water during the outgrow cycle of the animal. Not to mention the high amounts of methane gas release in the atmosphere. Yet, on a worldwide basis, more than 50 percent of all beef is ground and ends up as a

Impossible Foods pilot plant

hamburger. This is an indication how deeply embedded a hamburger is in many of the world's societal cultures.

Obstacles

The road to concoct a "veggie burger" that is juicy and flavorful with the right texture, bite and chew is quite long and not easy to navigate. Fortunately with the arrival of cellular agriculture major development hurdles now can be successfully taken and –as a matter of fact- assembling certain compounds and ingredients from plants now allow a level playing field when comparing to the legacy animal meat formulated products.

Of course, there are major differences between animal meat and plant meat. Plants typically contain just a few percent of protein, while animal lean meat has an abundance of high quality protein as well a superior mineral content. These differences need to be brought in-line and harmonized.

Another major difference is the flavor and aroma of meat and this is especially true for beef. When beef is cooked, literally hundreds of different subtle aroma compounds come through and together create the ultimate taste humans prefer and are the reference standard for plant meat comparison.

Even when plant meat foods reach a high degree of flavor, aroma and texture equivalency, still one major component is missing from the typical attributes of the burger: "blood". Of course, there is no real blood in raw meat but rather a combination of myoglobin and some extracellular water that creates the reddish looking meat juices.

Progress

Fortunately, the rapid progress of cellular biotechnology now allow scientists to recreate meat hemoglobin – an heme-group (iron) containing protein- When "infused" with oxygen, the iron compound turns red and that is exactly what separates "red meat" like beef and "white meat" like chicken, turkey and to a lesser degree pork.

Not only animals have proteins with a hemoglobin-like function; it appears that some legumes such as the soy plant and alfalfa have nitrogen-fixing properties that can create leghemoglobin (a heme protein). Leghemoglobin –a hemoglobin-like red pigment- is a nitrogen or oxygen carrier found in the nitrogen-fixing roots nodules of leguminous plants. Isolating a specific sequence of soy DNA and subsequently inserting it into a yeast strain. It is well known that yeasts are the modern workhorses of cellular biotechnology and increasingly used in a plethora of foods and beverages, including alcohol, craft beer, animal-free rennet for cheese making, pharmaceuticals and modification or manipulation of many types of protein. These modulated yeasts play also an important role to make "plant blood" by means of fermentation.

A rather traditional step of the fermentation process is used to complete the production of the purified heme in which most of the yeast is removed. It can be debated that this method of heme technology skirts the process of genetically modified organisms (GMO) and it remains to be seen how the natural food purists will react when they have the option

"Impossible Foods plant meat burger served undercooked. Probably the result of too high initial grill temperatures and to avoid dark crust formation removed from the grill too soon."

"Raw or uncooked Impossible Burgers, showing the same organoleptic features as the BigMac

in purchasing these plant meat foods. However, it also does not deserve to be pitched as a choice for the lesser of the two evils. When moving forward with such technological advances, it is imperative to find and social, economical, sustainable and ethical equipoise.

Building The Burger

Not only the presence of plant hemo protein in a burger, also simulating meat trimmings –including connective tissue and collagen- and animal fat are important variables that contribute to the typical hamburger make-up. The development and creation of a connective tissue matrix in which the plant meat fibrous structured is encased has been attempted for many years. The same is true for the development of stable fat emulsions to simulate ground beef tallow, or pork flare fat.

Convincing consumers to give up their beloved beef burger remains a challenge. However, there is no doubt that for a large group of Millennials (born 1982-2004) and their children, the new plant meat foods are an attractive and welcome healthy choice.

The writer of this article has been involved in quite a few studies creating "sizzling" emulsions, made from milk-, soy- pea- and potato protein that adsorbed plant fats and oils derived from among others soy, coconut, corn, or canola. These stable emulsions are uniquely able to mimic animal fat and even "sizzle" when the burger hits the grill or skillet.

After blending of formula ingredients, including the extruded structured plant fibers and final grinding, the matrix is cooled and the composition (almost) duplicates the appearance of a burger entirely made from 80:20 visual lean premium beef.

Impossible The Best

There is no doubt that the Impossible Burger is getting closer and inching up to simulating the typical McDonald's Quarter Pounder. In its raw state, the Impossible Burger looks a bit reddish and somewhat artificially manufactured with a slightly more finely grained appearance. When cooked (fried) on a grill or skillet with a few drops of oil, it immediately begins to sizzle and some of the coconut oil emulsion oozes out. After a little while, the patty starts to brown upwards from the bottom and begins releasing some of the "plant blood" juices. When the burger is flipped, a brown crust appears and has really firmed up, just like a beef patty. Come to think about it, as the score stands now, the Impossible Burger has reached a plateau of beef patty equivalency. Companies such as McDonald's are currently at a level in which further quality improvements are not feasible, unless they raise the bar and change the format from frozen to fresh beef patties and get rid of the clamshell grill.

When the Impossible Burger is cooked right and dressed with the usual condiments in a bun, it is a great eating experience and truly indistinguishable from the 100% beef burger. In a restaurant setting it can be a different story: there is often an element of "speed-to-plate" as well as the desire to minimize the dark crust formation when cooked at too high grill temperature. The chef's "solution" is to undercook the patty resulting in a raw-looking inside which might be unappealing for many, especially when very reddish and soft texture. Obviously, some more work needs to be done to communicate the proper cooking instructions with the operators of the restaurants as well as consumers who will purchase these products.

Impossible Foods will continue to further refine the organoleptic performance and still have lots of space to grow. The day is approaching rapidly that the plant meat burger will become the product of choice for a new generation of consumers.

The Future Is Here

Plant-based foods that seek to make inroads into the dairy and meat categories are not any longer a fad but rather it signals evidence of a permanent shift of changing the choice of proteins in the center of the plate, or the center of the bun for that matter. To be fair and balanced: there is a looming chance of disconnect between health and environmentally sustainable objectives. It will be of paramount importance to be transparent and find the right balance between possible conflicting goals of minimally processed "natural" foods and cutting edge technologies that utilize cellular biology including the use of specific microorganisms.

About the author:

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Board member RIBT.
Author and Publicist.

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*Proposed

SWISS PRECISION... ...AS A RESULT OF BELL'S UPGRADE

In response to favourable market conditions in Switzerland, poultry processor Bell has upgraded its plant in Zell to 10,500 bph (175 bpm). Already partners for many years, Bell and Marel Poultry teamed up to implement the plant extension, with the new in-line chilling tunnel as the main feature. Bell can now produce poultry meat with proverbial Swiss precision.

The substantial project had to be completed with minimal disruption to production. This was done by reconstructing the building in stages. After each construction stage, another processing department could be upgraded.

New air-chilled shock/ maturation tunnel

Bell's replacement of a traditional offline air chilling and maturation process with a completely new inline shock maturation chilling tunnel was not just a matter of hardware. It also meant a change in working methods. Instead of decisions being made "overnight" about the destination of product in the chill tunnel, these decisions are now made on the basis of incoming orders, some three hours before product leaves the chiller.

Thomas Graf, Manager Poultry at Bell says, "The flow of goods has been shortened by one day, while top quality is now guaranteed. Our biggest challenge was to plan and control the accelerated product flow, as well as the entire organization around it."

Thanks to several smart inline chilling maturation features, fillets are just as juicy and tender as fillets which have matured conventionally for 12 hours. At the same time, Bell can now track and trace product, which is only one of the many advantages of inline air chilling.

Primary processing

In order to cope with higher capacities, the scalder and the plucking line have been extended. In conjunction with shock maturation chilling, Bell has added inline electro-stimulation maturation upstream in the process directly after plucking.

Marel Poultry equipment in the evisceration department has also been upgraded, once again to cope with the higher line speeds.

2 x 2 IRIS

After evisceration and at an early stage in the process, the front and back sides of each product are visually graded by two Stork IRIS systems. When the new maturation tunnel started up, Bell felt three hours was a relatively short time to plan production. The speed with which IRIS provides information is, however, a great help in making the necessary decisions. "We are already noticing increased accuracy in differentiating specific quality parameters; together with Marel we will be able to take this even further.

There is potential for the further overall integration of data flows between Innova food processing software, the PDS module and our ERP," says Thomas Graf.

Having left the chilling tunnel, products pass a new weighing and grading line. Here they are inspected once again by two IRIS systems. As the skin is no longer wet and shiny, better evaluation of epidermis quality is possible, resulting in product being distributed with "Swiss precision".

About Bell

The Bell Group is Switzerland's number one meat processor. The company was established in 1869 when Samuel Bell opened his butcher's shop in Basel. With over 9,500 employees in eleven countries, its product range now includes meat, poultry, charcuterie, seafood and convenience products.

Bell closely works with suppliers and distribution partners in the retail, wholesale trade and food service sectors. Some of its brands are Abraham, Zimbo, Hilcona and Môssier Polette.

Cut-up and filleting

Besides upgrading the existing Stork ACM-NT cut-up line, Bell installed a second ACM-NT line. The same goes for the AMF-BX filleting line: two existing AMF-BX's were upgraded with the latest modules and techniques, while a new, identical third one was installed.

Three single lane SmartLine Graders are grading fillets, while a fourth, dual lane, SmartLine Grader grades wings.

SystemFlex

Bell is one of the first poultry processors to use seamlessly integrated SystemFlex logistics in primary processing. Conveyors underneath the rehangers catch any products which accidentally fall out of the shackles and bring them back to a point where they are rehung manually. After giblet harvesting, SystemFlex belts transport gizzards, livers, hearts and leaf fat separately to and through the chilling tunnel.

SystemFlex logistics are also an integral part of the cut-up and filleting departments. Bell's specific configurations at the trimming stations have become Marel Poultry's standard.

Partnership and future

Thomas Graf talks about the relationship between Bell and Marel Poultry, "during our long-standing partnership, both companies have undergone considerable changes. In certain "retuning" phases, it was good to know that the Marel Poultry people and contacts remained the same."

In its current shape, the Bell plant is well prepared for all future challenges; if an upgrade to a capacity of 12,000 bph (200 bpm) is needed, this will be easy to do. Thanks to the modular setup of Marel Poultry's solutions, Bell can face the future with plenty of confidence.

www.bellfoodgroup.com

ENERGY-EFFICIENT VACUUM SUPPLY FOR MEAT-PROCESSING PLANTS

An integrated packaging concept that guarantees that finished products are packaged hygienically, reliably, swiftly and efficiently is an important component in modern production of meat and sausage products. This is why innovative meat-processing plants are continuously working to optimize their production processes and integrate their packaging lines into the overall process in the best possible manner. The correct selection of vacuum generation systems substantially influences the operational reliability and economic efficiency of the packaging process. Depending on the size of the plant and the production quantities involved, there are a number of vacuum supply options. These alternatives are explained below and food for thought given in order to find the best possible solution as regards technology and cost-effectiveness.

Vacuum packaging of meat and sausage products offers a fundamental advantage: the elimination of the air in the packaging drastically reduces the oxygen content, slows down the activity of bacteria requiring oxygen and thus significantly increases shelf life. Additionally, vacuum packaging is hygienic and enables the products to be presented in an attractive manner. A wide range of vacuum packaging machinery is available on the market, which means a suitable packaging machine can be found for all packaging requirements. Regardless of their design or size, these packaging machines have one thing in common: for all machines, vacuum must be generated to meet the requirements for vacuum packaging. This can be achieved by either an integrated or a separate vacuum pump. Other alternatives include central vacuum supply systems to which several packaging machines are connected.

Integrated vacuum pump

Normally, the vacuum pump is integrated or set up separately in the immediate vicinity for any vacuum packaging machine – whether it be a vacuum chamber packaging machine, tray sealer or thermoforming packaging machine. Oil-lubricated rotary vane vacuum pumps are almost exclusively used for this purpose (fig. 1). This type of vacuum pump, developed specifically for the packaging industry by Busch Vacuum Pumps and Systems in the 1960s, has long been the standard in vacuum packaging. Continuous further development ensures that these vacuum pumps are always state-of-the-art, with millions in operation across the globe. The newest generation of these vacuum pumps is optimized with regard to energy in such a way that it produces energy savings of 20 percent.

The vacuum pump, either integrated or set up separately at the packaging machine, is the simplest and most common way of generating the vacuum for packaging. Short pipes between the vacuum chamber, sealing station and the vacuum pump guarantee that the air is rapidly removed from the packaging. Larger-scale thermoforming packaging machines with high packaging volumes may also be fitted with a vacuum booster. Higher speeds can be achieved by combining rotary vane vacuum pumps with vacuum boosters, thus reducing pump-down time. In practice, this means shorter cycle times and thus a larger quantity of packaged products per time unit. If several thermoforming machines are operated, at least partial centralization of the vacuum supply should be considered.

Fig. 1: The R 5 RD 0360 A rotary vane vacuum pump is one size of the newest generation of vacuum pumps for packaging

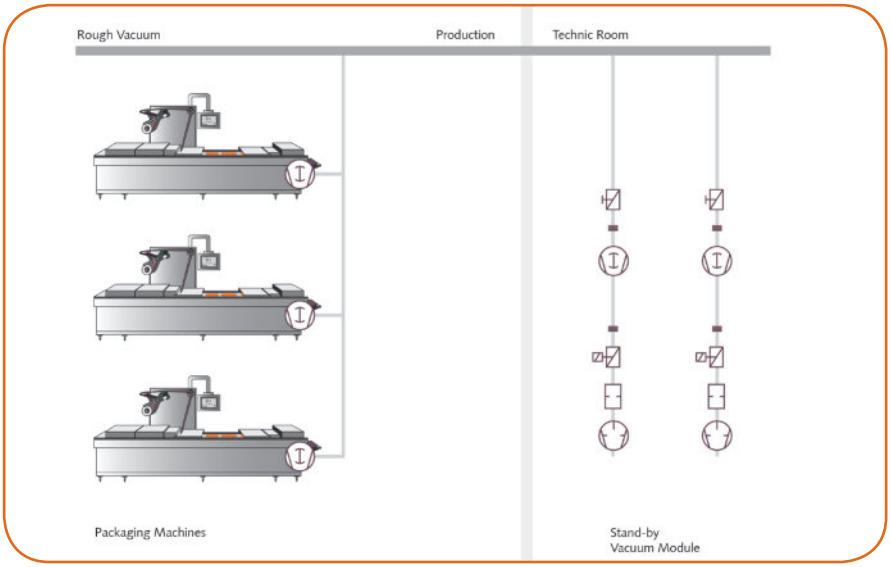


Fig. 2: Partial centralisation of the vacuum supply

Partial centralization

With partial centralisation (fig. 2), the rotary vane vacuum pumps are removed from the actual packaging room and integrated into a central pre-vacuum system for all packaging machines in a separate room. Dry, oil-free vacuum boosters are installed directly in the packaging machines and connected to the central pre-vacuum technology system with a system of pipes. Partial centralization means the rotary vane vacuum pumps are eliminated from the production room, thus preventing the danger of aerosol emissions. A partially centralized system always makes sense when two to a maximum of five thermoforming packaging machines operate close to one another in one area. If more packaging machines are used, the investment costs are too high due to the vacuum boosters in the individual machines; thus it is recommended to fully centralize the vacuum supply.

Central vacuum supply

* Economic efficiency

Full centralisation of the vacuum supply (fig. 3) is generally an economically viable option when there are six or more packaging machines. Usually, it is safe to assume that substantially fewer vacuum pumps are required for a central vacuum supply than for a set-up of individual vacuum pumps directly alongside the packaging lines. If the vacuum supply is subsequently converted from a decentralized to a centralized system, existing vacuum pumps can be integrated into the new centralized system, reducing the investment costs. The substantially lower energy costs when using vacuum boosters should not be underestimated. The cooling requirements for the air conditioning system are also reduced due to the fact that all vacuum pumps are located outside the packaging room. This, in turn, clearly improves the total energy consumption in favour of a centralized system.

* Hygiene

The absence of all vacuum generators in the production and/or packaging room in turn eliminates the danger of food contamination through oil aerosols. Additionally, there is no need for employees to enter the hygienically sensitive packaging room for maintenance or repair work. Clean-room conditions can therefore be created in the area surrounding the packaging lines.

* Operation method

The individual packaging chambers are evacuated in two stages to be able to run maximum cycle frequencies on the packaging lines. To do so, the critical pressure gradient is utilized and thus achieves the fastest possible evacuation.

This requires a rough vacuum pump unit for the initial evacuation and a medium vacuum pump unit for the evacuation to packaging pressure. The reversing valves with the corresponding control units are attached to the packaging machines. They control the transition from a rough to a medium vacuum.

For thermoforming packaging machines, the moulding station is supplied using a separate thermoforming vacuum pump unit. This ensures that the previously heated base foils are sucked into the tray mould and take the desired shape.

On the one hand, this separation into various vacuum stations is necessary as the moulding and sealing functions run at different vacuums and, on the other, as a substantially lower pumping speed is required for the two-stage evacuation of the sealing chamber. The pipework serves as a vacuum buffer. This buffer is necessary to keep the packaging pressure at a constant level, even when all the packaging machines are running with the same number of cycles.

The central vacuum system is fully automatic: it activates individual vacuum modules if a greater vacuum is required and/or switches off individual vacuum modules if a smaller vacuum is required. If a vacuum pump fails in the rough, medium or thermoforming pump units, then the reserve pump is automatically activated. This ensures maximum operational reliability for the vacuum supply to the packaging machines.

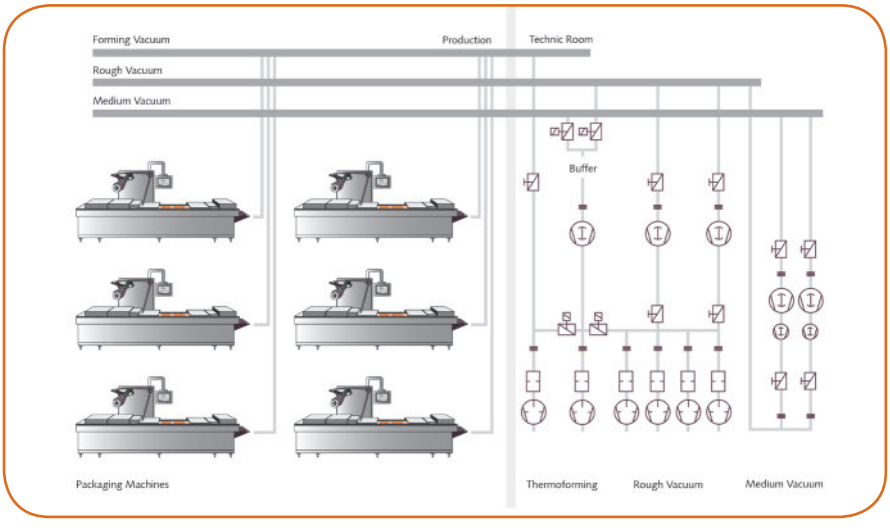


Fig. 3: Full centralisation of the vacuum supply

* Maintenance

A central vacuum supply system has a modular design, meaning that individual modules can be disengaged for maintenance. When this happens, a reserve unit automatically activates. This means that maintenance work can even be carried out during operation without affecting the production output of the packaging machines. In the central system, the individual rotary vane vacuum pumps are subjected to substantially lower loads relative to the individual units, thus extending the maintenance intervals. The central system's installation location outside the production area also benefits maintenance, as maintenance work does not result in interruptions to operational processes or hygiene breaches.

* Integration into the process control system

Central vacuum supply systems are very well-suited for integration into the operational process control system, meaning that the vacuum plant can be controlled and monitored from a PC. Any indications of imminent faults can be easily identified and rectified before the machines fail. The necessary technical parameters can be permanently called up and the pressures in the vacuum lines are displayed in graph form. This allows all process-related data to be evaluated and archived. Valuable information is supplied to the quality assurance and repair departments.

Summary

In systems using two or more vacuum packaging machines, the operator or responsible head of operations should consider how the vacuum is generated. They should not forget that production, e.g., with sausage fillers or tumblers, also requires vacuum that can likewise be supplied from a central vacuum supply. The different vacuum levels and pumping speeds at the various vacuum applications make it necessary for a vacuum specialist to precisely analyze the actual situation and then offer tailored solutions. For decades, Dr.-Ing. K. Busch GmbH has assisted its customers throughout the world with designing and manufacturing central vacuum supplies. As the world's largest manufacturer of vacuum pumps for packaging, Busch's specialists offer expert advice and calculate precisely which vacuum solution is the most economically and technically viable for each individual case.

www.buschvacuum.com

ISHIDA EUROPE DEMONSTRATES SEAFOOD SOLUTIONS

At Seafood Processing Global in Belgium, Ishida Europe will demonstrate its comprehensive range of weighing, packing and quality control equipment for the fish industry. Highlights will include the company's recently-introduced X-ray inspection system, revolutionary Airscan leak detector, advanced grading system and unique screwfeeder weigher.

Ishida's new IX series X-ray range raises the bar in performance and usability, offering customers easy maintenance and stress-free operation, and a robust fail safe system that prevents a contaminated product reaching the consumer, thereby minimising the potential for costly recalls.

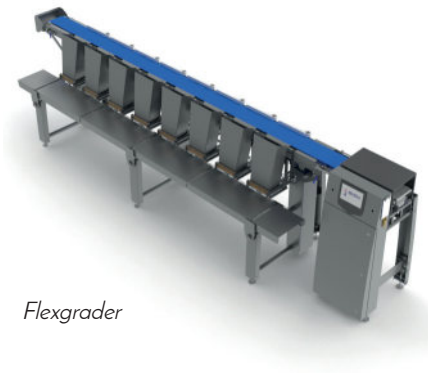
The Ishida IX-EN-4093 is ideal for manufacturers requiring an affordable but highly accurate entry-level inspection solution, with a reliable machine that balances impressive sensitivity with minimal operating costs to deliver an excellent return on investment. The IX-EN-4093 incorporates Ishida's unique Genetic Algorithm (GA) image processing function that delivers superior inspection sensitivity. Additional benefits include the identification of damaged and missing products or components.

X-Ray_IX-EN

Also on the stand, the new Ishida AirScan minimises spoilage in a wide variety of pre-packed retail fish products where CO2 is used as part of the MAP process. It uses advanced laser technology to identify leaks of CO2 from holes as small as 0.25mm in sealed MAP packs at speeds of up to 180 packs per minute, ensuring that maximum quality can be achieved without compromising on high throughput speeds and minimum packing time.

AirScan

The 8 station Flexgrader uses Ishida's proven high performance weighing system to provide a high speed operation with excellent accuracy that is able to grade product to a variety of different specifications. Grading can be carried out to specified weights,



Flexgrader

minimum weight or number per pack, perfect for seafood applications. It can also deliver target batching with tolerances and priorities.

Developed specifically for sticky products such as fish which are traditionally difficult to move efficiently through an automated weighing system, the 14 head Ishida screw feeder weigher incorporates unique rotating corkscrews to provide a powerful, controlled and fully automatic product feed to the pool and weigh hoppers.

QX 300

The entry-level semi-automatic QX-300-Flex tray sealer is ideal for low volume production runs, such as niche markets, or for new product development, using the right balance of sealing pressure and temperature to ensure excellent pack appearance and seal integrity. Sealing tools are available for outside cut, MAP, skinpack and shrink film applications. The machine features simple controls for fast set up and changeovers, and its compact dimensions reduce floor space requirements.

www.ishidaeurope.com

HANDTMANN PORTIONING TECHNOLOGY FOR CREATIVE FISH PRODUCTS

Fish burgers

Fish sausages

Shrimp salad

VF 600 with Round Former

Handtmann is an experienced specialist for economical, leading technology solutions. Among the company's core areas of expertise are the perfect portioning, separating, depositing, forming and co-extruding of pasty products, such as fish emulsions and salmon filets made from off-cuts. The raw material fish is expensive. Therefore, the portioning accuracy of Handtmann vacuum fillers is especially important. Their superior vacuum capacity and gentle product treatment also play a decisive role in the shelf-life of the end product. Consistent quality and high productivity guarantee successful sales of traditional and new products. Innovative fish products with groundbreaking ideas related to flavour, shape and presentation ensure market success with products that create a high degree of added value, for example with the use of off-cuts.

This potential allows the development of new market segments with a diversity of texture and appearance and attractively presented products in a contemporary style – fish sticks, sausages, balls, burgers, pâté, co-extruded sausages, fish salads such as shrimp salad, delicatessen salads and much more besides.

Interesting process solutions from this range are a VF 600 vacuum filler with RF 440 round former for the production of balls, burgers and other similar products. Fully-automatic burger production is the perfect example of a solution for profitable, pioneering concepts. Top production standards are set by networking the grinding, portioning and forming processes. Because the products are easily perishable, proper hygienic conditions are of fundamental importance. Systems from Handtmann are designed from the start for complex process solutions without direct intervention on the product by operators.

Interested fish processors are invited to visit the Handtmann technology centre in Biberach. The architecture of the customer forum is designed for customer dialog, demonstrations, product developments and presentations of individual projects. Convert individual product ideas into profitable solutions, head off in new directions, be a trendsetter in the global fish market – with Handtmann technology.

www.handtmann.de

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GLOBALG.A.P. AQUACULTURE APPLIES FOR GSSI RECOGNITION

The development of the GLOBALG.A.P. Aquaculture Standard is based on the FAO Technical Guidelines on Aquaculture Certification. This means that the four pillars of the guidelines (food safety, environment, animal welfare, social practices) have continuously been covered. Food safety is a core requirement and the GLOBALG.A.P. Aquaculture Standard is currently the only aquaculture certification program at farm level that is recognized by the Global Food Safety Initiative (GFSI). The environmental criteria include biodiversity and protected areas, while animal welfare for aquatic species has also been included in more detail starting with the new Version 5 released in June 2015. And finally, in addition to the existing areas of occupational health and safety, the risk assessment on social practices has become a major requirement for every audit. This means that the entire production chain is verified with regard to social practices and the outcome is transparently available to all market participants.

GLOBALG.A.P. is now applying to be benchmarked by the Global Sustainable Seafood Initiative (GSSI) for the scope of Aquaculture certification in order to support certified farms from an environmental point of view. " Benchmarking platforms such as GSSI contribute largely towards increasing quality and consistency among certification programs. Both are needed to generate confidence in certification, which is one of our most important tools to maintain and increase trust in the agriculture, aquaculture and food sector," said Dr. Kristian Moeller, CEO of GLOBALG.A.P. " I want to thank all those organizations and individuals who have built up GSSI."

If in the future, a platform to evaluate animal welfare criteria as well as social practices is consolidated to evaluate aquaculture certification schemes, GLOBALG.A.P. will do its best to support these initiatives.

www.globalgap.org

AG MINISTER GRANTS FUNDS TO SEAFOOD PROCESSING, AQUACULTURE SECTORS

IRELAND - Minister for Agriculture Food and the Marine, Michael Creed T.D. has announced the award of over €1.8 million in grants to 19 seafood enterprises under the European Maritime and Fisheries Fund (EMFF) Operational Programme for the seafood sector. The grants are co-funded by the Exchequer and EMFF.

Minister Creed said: "Against the Brexit backdrop and its potential implications for our food exports, I am particularly pleased to see so many seafood enterprises continuing to invest in growing their production, developing new consumer products and growing and diversifying markets, something I witnessed first hand during my recent Trade Mission to the Gulf States.

"My Department's EMFF seafood development programme is providing a suite of three development schemes for our seafood processing sector that aim to incentivize seafood innovation and new product development, support capital investment in state of the art equipment to add value to raw material and to give processors the tools to diversify and develop their export markets.

"In this first of a series of grant approvals for 2017, grant aid of almost €900,000 has been awarded to 7 seafood processors supporting in excess of €3 million in value adding capital investment, while grant aid of €824,000 has been awarded to 8 aquaculture enterprises supporting capital investment of €2.8 million that will directly contribute to growing output from these farms in the coming years and help achieve the ambitious sustainable growth targets we have set for our aquaculture sector.

"I have provided Bord Iascaigh Mhara (BIM) with €26 million of EMFF funds in 2017 and I expect to announce many more awards as the year progresses."

www.thefishsite.com

MSC LANDS SUSTAINABILITY FIRST

The Marine Stewardship Council (MSC) is the first global sustainable seafood certification program to achieve recognition from the Global Sustainable Seafood Initiative (GSSI), confirming it meets international requirements for credibility and rigour.

The GSSI benchmark, based on FOA guidelines, includes international performance indicators for governance, operational management, supply chain traceability and auditing. It was developed

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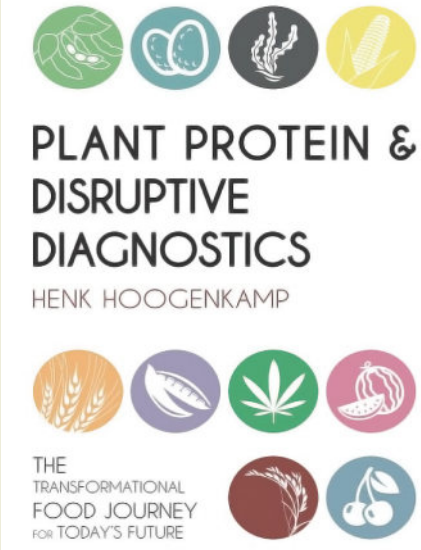

HENK HOOGENKAMP

PLANT PROTEIN & DISRUPTIVE DIAGNOSTICS

The Transformational Food Journey for Today's Future: Profound insights for food industry and consumers.

Henk Hoogenkamp's groundbreaking book tackles topics from food-related disease to malnutrition to organic and GMO to dealing with a world approaching an epidemic of obesity.

A provocative new nonfiction work by one of the world's foremost authorities on food formulation joins the short list of "must-read" books tackling the immense challenge of malnutrition in the developing world, even as Western societies are dealing with rampant obesity.

For most consumers in the Western world an abundance of animal protein is nearly always part of the daily diet, while for most in the developing world not sufficient animal protein is available. Hoogenkamp argues that the key to solving this dilemma is unlocking the potential of plant proteins as well as cellular biotechnology that deliver affordable nutrition, improve health and wellbeing and reduce the environmental burden in an era of shrinking water and land resources.

Along with detailed chapters discussing plant protein varieties such as derived from soy, pea, wheat, rice, potato and hemp the book explains:

- Food, water & climate change
- Sports Nutrition, Wellness & Lifestyles
- Food: People, Plamnet, Profit
- Glutenfree Protein Solutions
- Societal Food
- Diabetes T2: From Bad to Worse
- Fast Good Food & Family
- Fiber: A Natural Need for More
- Lifestyle Diagnostics
- Real Plant Meat
- Sugar, Salt Phosphate: Less is More
- Natural & Organic
- Sarcopenia & Longevity

About the Author: Born in the Netherlands, in his entire professional career Henk Hoogenkamp has been ahead of the curve, many times more right than wrong. Many of the things he advocated for were initially looked upon skeptically, but are now standard procedure in the industry. With brutal honesty and lots of inside information, Henk gives a fresh new voice to the world of plant protein technology and marketing. Written in a refreshing engaging style, Hoogenkamp shares practical know-how reflecting the skills needed to feed the world with food for tomorrow. A true timely book with undistilled wisdom and common sense gleaned from years of dedicated and hard-gained experience and Henk's unique ability to inspire others to reach the next level of expertise.

Along with coining the term "Lifestyle Foods" in the 1990s, his resume includes pioneering work in developing sports nutrition supplements and groundbreaking applications for milk and plant protein ingredients in meatfree foods, cream liquers, cheese analogs.

ISBN 9781534787421

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in consultation with environmental NGOs, global businesses, independent experts, government and intergovernmental organisations. Recognition to this benchmark required a high level of scrutiny of the MSC's operations and included detailed stakeholder consultation.

The MSC program meets all the essential components of the GSSI benchmark, and a further 63 supplementary components relating to issues such as deep sea fishing, vulnerable marine ecosystems and data collection to demonstrate impact.

Rupert Howes, Chief Executive of the MSC, said: "The MSC offers a science- and evidence-based program to recognise sustainable fishing practices throughout the world, rewarding existing good practice and driving real change on a global scale. Recognition from GSSI reaffirms the rigour and credibility of MSC certification. Anyone committing to purchase MSC certified seafood can be confident that it reflects global best practice in fisheries management."

Dr David Agnew, Director of Science and Standards at the MSC, said: "The MSC welcomed the thorough scrutiny of our processes and requirements that was required to achieve GSSI recognition. Third-party scrutiny, independence, transparency, impartiality and stakeholder consultation are central to the MSC's values and commitment to continually improve and maintain world-leading standards."

Audun Lem, Deputy Director Fisheries and Aquaculture Policy and Economics Division at the FAO, said: "MSC's successful completion of the GSSI Benchmark Process highlights the importance of adhering to internationally agreed instruments such as the FAO Ecolabelling Guidelines. The GSSI process has demonstrated the merit of various types of certification schemes and we encourage others to follow MSC's example."

Credibility confirmed

The MSC is also the only wild-seafood certification program to be a fully qualified member of ISEAL, the International Social and Environmental Accreditation and Labelling Alliance, requiring compliance with their highly regarded Codes for Standard-Setting, Assurance and Impact Monitoring.

Herman Wisse, GSSI Program Director, concluded: "The MSC's successful completion of the GSSI Benchmark Process marks a milestone in ensuring confidence in seafood certification. Our collective work towards more sustainable seafood requires robust and credible certification in alignment with the UN FAO Guidelines."

www.thefishsite.com

SECURING FUTURE OF CATTLE PRODUCTION IN AFRICA

AFRICA - A 'world-first' study of the genomes of indigenous cattle in Africa has revealed vital clues that will help secure the future of cattle production on the continent.

Cattle are an increasingly important resource in Africa as sustainable sources of food, milk, traction and manure. With its human population growing and the economy and subsequent wealth predicted to expand greatly, there will also be a huge increase in demand for livestock.

Now Professor Olivier Hanotte from The University of Nottingham and the International Livestock Research Institute (ILRI) in Ethiopia, with Professor Heebal Kim from Seoul National University, have mapped the genomes of five breeds of African cattle and discovered some unique genetic adaptations that could inform and improve future breeding programs. The research is published in the journal Genome Biology.

Scaling up livestock production is a big challenge in Africa partly because of the varying climates but also because of infectious and parasitic diseases. Since their introduction to the continent thousands of years ago from their centres of origins in the Near East and the North of the Indian subcontinent, African cattle breeds have gradually become genetically adapted to cope with their varying environments from the Sahelian desert to the sub-humid tropical forest and it is these useful adaptations that the team has identified.

Professor Hanotte said: "This paper is important because it is the first time that the genome of African cattle has been studied in detail. The results will better inform breeding and cross-breeding programmes to improve cattle productivity and resilience in sub-Saharan Africa and crucially preserve the genetic diversity of the species.

The African continent is now witnessing major transformations of its agricultural systems and rapid loss of indigenous livestock. Unfortunately, the opportunity to explore this treasure trove of diversity may not last for very much longer as current random breeding programmes mean some of that diversity will be lost."

For Dr Jaemin Kim, joint first author of the paper, sequencing and analysing the genome of these African breeds has been a unique journey of discovery: "For the first time we have been able to pinpoint at fine scale genome regions involved in the unique adaptation of African cattle."

There are around 150 breeds of cattle in Africa so the research team chose five distinct breeds that represent the genetic diversity of the species over a wide geographical area. Professor Hanotte said: "We analysed the genome of each animal and looked for what they were good at (e.g. coping with hot weather, infectious disease resistance). We then generated a catalogue of genetic variants in our five breeds and identified the unique regions in the genome of each breed that gives them an advantage."

The team analysed DNA samples from 48 animals from the five breeds - the West African taurine N'Dama, the long-horned sanga Ankole from Central Africa and three zebu breeds (Boran, Ogaden and

Kenana) from East Africa. Genes were identified linking feeding behaviour to control of parasitic infection in N'Dama, horn development and coat colour in the Ankole and thermo-regulation (heat tolerance) in the three zebu breeds. Genes associated with tick resistance were identified in all five breeds.

The wider aim of the research team is to catalogue all 10,000 breeds of domestic livestock in the world in 'The 10,000 Livestock Genome Project'. Professor Hanotte said: "We want to document the diversity of global livestock before that diversity disappears forever, so we can compile a catalogue of genetic information for future sustainable breeding improvement programmes. We estimate this would cost around $70 million - a small investment for such a large global public good."

An earlier paper by Professor Hanotte published in Science documented the fascinating history of cattle in Africa and traced their arrival to the continent from the 'fertile crescent' in Turkey and Iraq, and from India.

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HOW RESPONSIBLE USE OF ANTIBIOTICS STILL ALLOWS PRODUCING HEALTHY PRODUCTIVE BIRDS

To ensure sustainable animal production, maintaining optimum gastrointestinal health and functionality is essential.

A well-developed, balanced and diverse microbiome is the by far the best protection to enhance intestinal health and improve production, providing the best insurance for a good performance. Early 2017 certain medications in the USA will be regulated as of how they are dispensed for chickens. The implementation of the Veterinary Feed Directive (VFD) will put a stop to over-the-counter sales of many of the antibiotics used for poultry and other livestock. Use of the VFD drug will be permitted only under the professional supervision of a licensed veterinarian. This reduction in antibiotic use is creating a void that must be filled to ensure maintaining production levels.

Currently commercial birds are fed diets containing different functional feed additives at low concentrations that trigger responses beyond their nutritional value. Two groups of compounds are particularly promising: Organic Acids (i.e. butyrate) and Phytogenics (botanicals). Most recently, exploring ways to optimize the efficacy of these two classes of functional feed additives has gained more attention at scientific community as well as the production side at the field.

Butyrate: where to deliver in the GIT

Sodium butyrate is a salt of the short-chain fatty acid butyric acid, which is the end product of fermentation of carbohydrates by anaerobic bacteria in the hindgut. It is a molecule that is well known for its ability to elicit many effects at the cellular or microbiological level in several tissues. The fatty acid is considered the most important energy source for intestinal cells and has multiple beneficial effects on vital intestinal functions.

Research and practical field experience confirm that butyrate alone or in combination with other dietary strategies reduces the incidence of necrotic enteritis. Several different cell types and bacteria that can be found along the entire gastrointestinal tract (GIT) are responsive to butyrate. Which part of this wide range of butyrate-dependent effects will be triggered, will therefore depend heavily on the enteric location where butyrate is delivered after oral ingestion.

Butyrate, when fed unprotected, will be easily absorbed and metabolized in the frontal part of the GIT, the stomach.

Feed additive companies produce butyrate in a protected form to prevent gastric absorption and allow more absorption at the distal GIT, with positive results noted as animals benefit from butyrate delivered more directly to the intestinal mucosa. Coated butyrate is typically composed of beads containing butyrate that are embedded in a protective matrix of vegetable fat. For products with a higher fat content <50%, a significantly large part of the butyrate content might only be released as lipase is secreted in the duodenum, breaking down the protective lipid matrix, thus gradually releasing butyrate throughout the intestinal tract, which is often referred to as "target release" or "slow release".

Through in vitro and in vivo testing, it has been shown that these molecules, as short-chain triglycerides, will not be absorbed in the stomach, but that the bonds on the outside end of glycerol will be cleaved off by pancreatic lipase, thereby releasing butyrate in the proximal part of the small intestine. Already in the small intestine, butyrate supports villi development, gut morphology and function.

Further on in the digestive tract, butyrate as an energy source for the colonic cells, it is a major precursor for lipid synthesis, used for incorporation into the cell membranes. By supporting the cell membrane structure, butyrate contributes to the maintenance of barrier and transporter functions in the gut. It is also evident by research findings how important of a role butyrate plays in the intestinal wound healing by its positive effect on tight junctions and gut integrity.

Botanical Products: How to Look for Effect on Microbial Activity

Botanical feed additives that are used in modern poultry production often consists of a mix of several components, specifically dried herbs, plant extracts or essential oils, that have been described to have favorable effects on digestion, blood pressure, anti-inflammation and hepatic protection. It is therefore

a challenge to develop a botanical feed additive mixture with ingredients triggering several physiological responses, with the objective of supporting animal health and performance as much as possible. So, a more reliable approach is to select feed additive ingredients based on botanical components effects at lower concentrations, which are likely to be able to control bacterial activity thus improving gut health.

One of the potential mechanisms of botanical feed additives is their effect on quorum sensing (QS). Bacteria continuously secrete QS signals, which allows them to synchronize their behavior. More specifically, when the number (the quorum) of a certain bacterial species or group in an environment increases, so will the concentration of their secreted QS signals If a specific threshold of these molecules is reached, it will activate QS-dependent signaling pathways inside the bacteria, resulting in biochemical responses that are often associated with pathogenicity, such as the production of toxins.

As a consequence, compounds able to disrupt QS are being increasingly investigated in humanmedical research as potential alternatives to antibiotics due to their efficacy at low concentrations and the low chance of bacteria developing resistance against these non-lethal molecules. But QS has also been implicated to be of importance for veterinary and zoonotic pathogens, including Clostridium perfringens, Yersinia pseudotuberculosis, Campylobacter jejuni and Salmonella enterica subspecies enterica.

Gut health is essential for health and performance of production animals. Many feed additives, including butyrate and botanical products, have been commercialized to support intestinal development and function. Even when producers feed "perfectly" balanced diets, feed additives nowadays can offer essential and reliable support to maintain a healthy gut.

Nutriad provides short chain fatty acids and botanicals in different forms and program approaches to support gut health and maintain production at different ages and production stages.

www.nutriad.com

BORD BIA LAUNCHES MAJOR IRISH BEEF CAMPAIGN IN GERMANY

Bord Bia
Irish Food Board

GERMANY - Bord Bia, the Irish Food Board, has announced that a major new campaign to support Irish beef exports to Germany was launched by the Minister for Agriculture, Food and the Marine, Michael Creed in Stuttgart this week.

The promotional campaign, valued at almost €1 million this year alone, will target in excess of 8 million German consumers. In 2016, Ireland exported 23,000 tonnes of beef to Germany, a doubling in volume since 2012 (from 11,500 tonnes), and according to Bord Bia this figure is expected to reach 30,000 tonnes by 2018.

Speaking from Stuttgart Minister Creed said, "I am delighted to launch Bord Bia's new Irish beef campaign for the German market, introducing Irish beef's unique sustainability credentials to German consumers for the first time. Promotional campaigns such as this enable us to showcase Ireland as a provider of safe, quality and sustainably produced food.

Against the Brexit backdrop, identifying market opportunities, building awareness and securing business in a more diversified range of markets has never been more important to the future of our quality food production. My Department and Bord Bia are working closely with the agri-food sector to sustain and grow our market opportunities."

Meanwhile Tara McCarthy, Bord Bia's Chief Executive, said that building on the recent strong export performance in this competitive environment requires a sustained marketing and promotional drive such as this campaign.

"Irish beef continues to perform in what is considered an important premium market, with beef exports rising to €142 million in 2016 from €92 million just four years ago. This campaign follows comprehensive consumer research in the German market and a highly encouraging performance by industry," commented Ms McCarthy.

The launch event was hosted by Michelin-star chef, Claudio Urru, at his Restaurant 5 in Stuttgart. Attendees included meat buyers from retail chains and purchasers of Irish beef such as Kaufland and Edeka Südwest as well as a number of prominent chefs in Germany.

As part of the campaign planning, Bord Bia undertook qualitative and quantitative consumer research to gain a better understanding of German consumer attitudes to Irish beef. According to Donal Denvir, Bord Bia's German Manager, "The research found that there is a huge interest among German consumers around the topics of food sustainability, origin and animal welfare. Ireland as a food producing nation was viewed favourably and the image of our food production system is one that is pure, green and natural where animals freely graze on green pastures."

Bord Bia will undertake a five year multi-channel communications campaign across retail level in-store, in restaurants, online advertising, on social media, in print, and at various trade and consumer events. This year will see the campaign commence with five retail promotions in over 2,000 stores and a series of promotions with leading steak restaurant chains across 100 locations. In addition, Bord Bia will organise trade journalists visit Ireland to gain a first-hand experience and understanding of Irish beef. Consumers will be directed to a website where they can engage with Irish farmers on farming and Irish beef.

Selling Ireland's green image, the campaign will also feature an ongoing communications programme around Bord Bia's sustainability initiative,

Origin Green. Since the inception of Origin Green, over 137,000 carbon assessments have been completed on Irish beef and dairy farms, or an average of 800 assessments per week. According to Bord Bia, over 37,000 individual improvement targets have been established for Irish beef farmers, and when completed, these targets could reduce greenhouse gas emissions by more than 7 per cent.

www.thebeefsite.com

PROPOSAL PROMISES TO HELP CHINA REACH GOAL OF GREEN AGRICULTURE

CHINA - Leaders from 300 agricultural companies have gathered in March in Beijing to sign a proposal, promising to optimize their production processes and work together to realize China's goal of green agriculture.

During the meeting, the Soil and Fertilizer Alliance of China, which is affiliated with the Chinese Academy of Agricultural Sciences, signed a memorandum of cooperation with Alltech, a biotechnology company based in the US. The two parties aim to jointly promote regional farming and breed the integration and the sustainable development of animal husbandry.

They also hope the cooperation will contribute to the goal set by the Ministry of Agriculture, which aims to end the growth of pesticide usage by 2020.

Wang Xu, chairwoman of the Soil and Fertilizer Alliance of China, said China has overlooked soil security and composition for a long time.

"We need to build a good soil ecosystem, which is so important and closely related to our livelihood. In recent years, provinces have been under increasing pressure in dealing with pollutants," she said. "There is no doubt that fertilizers are important. However it is necessary that fertilizers are not overused and do not cause damage to the environment."

"Reutilizing waste, if it could be done in a right way, can increase profits for companies. However if it does not generate profits for farmers, it will not be a sustainable practice," she added.

Mark Lyons, global vice president and head of Greater China for Alltech, said: "We share China's vision, and we also understand the challenges being faced in the field and on the farm by farmers. It is our intention that the conference lights a spark that will enable China's agriculture sector to join together in working toward practical solutions for sustainable farming."

China's No 1 Central Document for 2017 highlighted agriculture, setting goals for the country's sustainable development and environmental protection.

The agriculture sector in China has faced increasing attention and governmental pressure in recent years, as more stringent laws and regulations have been implemented to address concerns regarding the security and safety of the food supply, as well as the environmental impact of farming on land, water and air.

According to the State of Food and Agriculture 2016 issued by the Food and Agriculture Organization of the United Nations, about one-fifth of the world's greenhouse gasses come from agriculture, including forestry, fisheries and livestock production.

To address this, China introduced Ten Measures for Prevention and Control of Air Pollution, creating a more stringent air pollution control law. For example, the government encourages the development of slow release fertilizer and the reduction of ammonia emissions.

Additionally, the Law of Air Pollution Prevention 2016 regulates that the emissions of ammonia and volatile organic matter should be reduced, and livestock breeding companies should reduce the discharge of malodorous gasses.

Richard Murphy, the research director of Alltech's European Bioscience Centre, said ruminants like cattle and sheep produce most of the greenhouse gas methane, and the whole industry is currently working to reduce methane content produced per liter of milk.

"Alltech's in vitro fermentation model can evaluate methane emissions by simulating the rumen," he said. "Through routine analysis and in vitro fermentation evaluation, the artificial rumen model helps the farmer to monitor day ration gunk, improve fodder digestibility, optimize rumen fermentation of the animal and therefore reduce waste emissions effectively."

At the conference, the ruminant animal forum gathered internationally well-known experts who addressed how to further develop the dairy industry while safeguarding the environment. For example, improving feed digestibility to optimize rumen fermentation is an effective way to reduce emissions, and selecting the proper mineral form and feeding at the proper level can reduce heavy metal emissions in feces. Through the experiences and data shared by these global experts, protection of the environment could be seen as more practical and economical.

As animal husbandry in China is becoming more intensive and large-scale, the excessive amount of heavy metals in the soil has become an urgent environmental problem. Based on the statistics of the National Soil Pollution Condition Investigation Communique published by China's Ministry of Environmental Protection and the Ministry of Land and Resources, 19.4 per cent of the soil in China has exceeded the standard, and the main pollutants are cadmium, nickel, copper, arsenic, mercury and lead. A significant amount of heavy metal pollution, such as arsenic and copper, is produced by feed and feces.

www.thepoultrysite.com

EXCITEMENT IS BUILDING FOR VIV TURKEY 2017...

THE WORLD'S LARGEST POULTRY EVENT IS SET TO TAKE PLACE IN İSTANBUL FROM 06-08 JULY 2017.

Excitement is building for VIV Turkey 2017, the world's largest event aimed specifically at the poultry business. VIV Turkey will be held in Istanbul Expo Center at HALL 9,10,11 on 6 to 8 July 2017

The poultry industry has shown strong support for the host city, Istanbul. Top-level buyers from around the globe, and most of the world's suppliers to the poultry business, are all keen to be part of the event.

Floor space is 90% filled

By early April, 4 months before the show opens, more than 500companies from all over the world have booked stand space at the event. Many exhibitors are joining the show for the first time.

In terms of net space this means about 15.000 square meters have been booked. The space is now over 90% allocated with only about 300-400 square meters remaining on the floor plan.

Featuring over 500. exhibitors from more than 25 countries, the trade show brings together all the leading industry players from the poultry breeding and equipment, meat ındustry and equipment, meat products, feed production and supplements, feeders & mixers, veterinary ınstruments, medicines, budding and biological products, diagnostic laboratories, genetics and registration, packaging and logistics, animal health, hygiene, cleaning and sanitation systems, farm buildings and equipment, consultancy service, trucks, commercial vehicles, poultry breeding unions, associations and cooperatives, industry related banks and Insurance Companies - for 3 days of business discussions and networking.

Excellent learning opportunity

Alongside the trade show, VIV Turkey will feature conferences. These conferences will examine relevant issues and topics that can be change-drivers for success in the poultry industry in the region.

VIV Turkey offers a diverse and complete networking platform

The 2017 trade show will not only feature a show floor packed with exhibiting companies and a robust conference program, but will also offer a variety of side-events and entertainment which will make VIV Turkey in Istanbul a memorable event.

wwww.vivturkey.com

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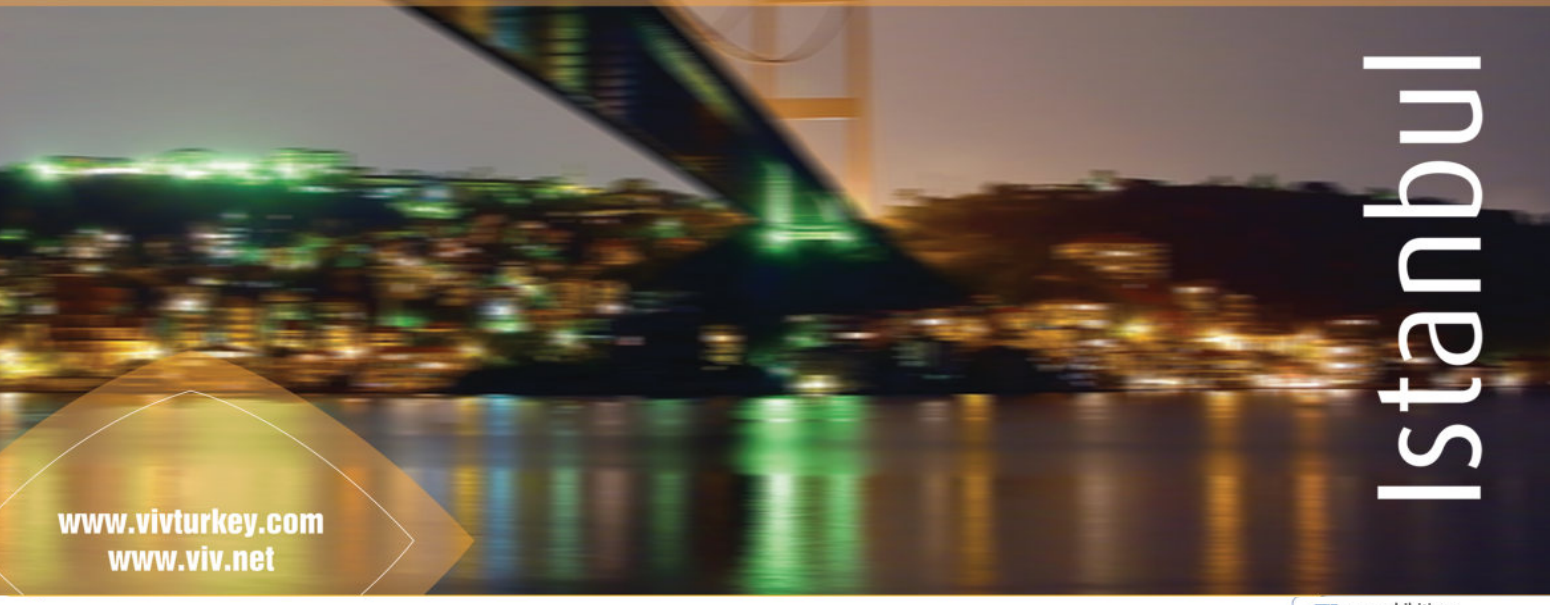

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